

**The Tenement House As a Building Form in Relation to the  
Large-Scale Urban Development of Warsaw, 1864-1919.**

**By**

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THESIS ABSTRACT

The evolving urban landscape has been investigated in the socio-economic context of Warsaw's incorporation into the Russian Empire (another defeated Polish Uprising, rural immigration in the wake of tsarist social reforms from 1861, Jewish immigration from the Empire's interior, economic integration and the city's expansion as a trading and banking centre between Russia and the West). Spatial growth has been interpreted as resulting primarily from private property speculation, limited spatially by tsarist military strategy (fortifying of the city 1878-1911). Secondary urban-creating factors have been identified in industrialisation and St. Petersburg's control of the municipal budget, thereby emphasising the private sector's primacy.

The tenement house is defined as "barracks"-type housing, subdivided into multiple dwelling units. This building form is perceived as the fibre in the city's large-scale urban development until World War I (E. Szwankowski).

The importance of 1919; the year when fair rent legislation and new regulations to control private property development were introduced by a reconstituted Polish administration, seeking for the first time to curb the excesses of private tenement construction, is taken to be purely symbolic; the end of tenement speculation as it had been known until that point in a purely hypothetical sense (J. Cegielski).

Most commercial and even certain industrial enterprises, dominated by small manufacturing firms and workshops rather than factories located in more outlying

areas (W.Fruss) are expected to have been absorbed by the tenement house.

The tenement emerged in the mid-1800s as a complex of interconnecting building components arranged around a central courtyard or courtyards, subject to broadly applied building regulations (Polish and from the 1860s tsarist), which nevertheless increasingly failed to preserve constructional standards and even, so far as the Polish Home Rule era is concerned, a certain uniformity for which such legislation had originally been devised (S. Herbst, J. Roguska).

An "inner" city of tenement houses is identified as the main area for investigation, unfolding during earlier stages of development on open terrain, later replacing older buildings or occupying remaining undeveloped areas, including gardens as well as infill projects and street block "back-building". Cells or landscape units originating from the period under investigation usually include, or are composed exclusively, of tenement multi-apartment housing blocks which may serve as subjects for empirical research. A degree of functional continuity is expected (A. Rottermund, J. Chrościcki, J. Roguska, B. Chmiel, Z. Walkiewicz, J. Sujecki).

The thesis is divided into three main parts:

1. analysis of the urban profile in 1914, based on a detailed property and apartments census from 1919, municipal statistics from 1913 and a 1:2500 scale base plan giving rise to a model of urban physical structure composed of functional zones;

2. hypothetical urban form and land use patterns resulting from urban-creating processes of the second half of the 19th. and early-20th. centuries are tested in

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sub-study areas within the inner urban area and especially in districts shaped largely during the period of investigation (street block analysis in the inner urban core, tenement belt and inner-peripheral areas; also identification of urbanising districts outside of the main study area as regions potentially ripe for advancing property speculation, where other building forms predominated over tenement-barracks housing, or the latter building type was entirely absent from the profile);

3. the tenement house in the urban landscape (*Stadtlandschaft*): building layout, plot parcellisation, changing constructional forms (flat subdivision, subsequent outbuildings and raising of additional storeys), social compositional and stratification considered in relation to identified tenement "types", empirical examination of surviving tenement houses or ensembles constituting fragments of 19th. century urban topography within the present day Mid-town (*Śródmieście*). Reference is also to be made to inner city areas which have undergone complete redevelopment since their total obliteration in 1943 or 1944 in order to permit an integrated evaluation of the "historic" urban form regarded as evolving organically until the 20th. century, of which cells or landscape units have survived in other parts of Warsaw's Mid-Town.

A methodological question crucial to the analysis has been the undertaking of an inquiry conducted at varying scales: metropolitan area (Greater Warsaw) - inner city (Warsaw city within its pre-suburban incorporation municipal boundaries) - functional zones or districts - urban units - street blocks - building plots accommodating tenement property cells or real estate divisions. In Part I the study area is delineated according to property

and demographic data from 1919/1913 in relation to street block research units, with an aim to facilitating the break down of this area into sub-study areas of approximately consistent building and housing density characteristics (Part II). In Part III tenement properties of varying constructional, functional and social characteristics (often undergoing changes during the study period itself) may be interpreted in relation to their location within the study area, constructional chronology, later extensions or internal alterations and functions these buildings perform at the time of writing in cases where continuity or a degree of continuity has been retained in the city's functional structure (especially residential, but also office space, shops, workshops in groundfloors and even basements).

Particular complications have arisen in connection with the unavailability or total absence of documentation. Primary sources are centred around property census statistics (municipal records from the 1860s, 1882 and 1891, as well as the all important 1919 survey) and cartographic evidence from the study period or the interwar years, supplemented by fragmentary published information, including articles taken from contemporaneous newspapers and periodicals, land registry files for selected individual properties, certain tsarist bureaucratic sources as well as photographic information from the time. Secondary sources taking the form of published research or monographs which have proved directly relevant to the urban analysis are listed in the literary survey, while other points of reference are contained in the notes placed before the conclusion.

A comparative aspect of the thesis would endeavour to

place 19th. century Warsaw's urban pattern in a regional context, thereby acknowledging the importance of seeking models of urban growth and form, together with broad social and economic processes common to cities in history. Models of "tenement city" development have been sought in studies of the urban profiles of Berlin and Vienna, although in the specific case of Warsaw comparisons might be drawn with urban form and tenement house evolution in such principal cities of the Russian Empire as Riga, Odessa, Kiev, Vilna (Vilnius) and Minsk, apart from Moscow and St. Petersburg. This latter aspect, while considered fundamental to placing the urban case study in a wider urban context, has had to be cut short in view of limited time and space.

Historical analysis in urban geography of this period in particular is regarded as being of relevance to our own times, not least because the reinterpreting and rehabilitation of the 19th. century urban fabric - and in Warsaw's case the question of regenerating large parts of the inner city, substantial portions of which were designated, or quite by accident turned into, urban fallow areas - have become pressing contemporary issues.

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## THESIS ABSTRACT

The evolving urban landscape (or *Stadtlandschaft*) taking shape up to the First World War has been investigated in the socio-economic context of Warsaw's incorporation into the Russian Empire and a basic ethnic division between the Poles (their first city) and Jews (their largest community excluding New York). Urbanisation has been interpreted as resulting primarily from private property development, limited spatially by tsarist military strategy. Secondary factors shaping the physical environment have been identified in industrial location and St. Petersburg's control of the municipal budget, thereby emphasising the primacy of private property ownership.

An 'inner' city of tenement houses (or *Mietskasernenstadt*) is identified as the main area for investigation, unfolding initially on open terrain ('virgin land'), later replacing older buildings or occupying areas remaining undeveloped in the centre ('infill' development).

The thesis is divided into three main parts:

1. analysis of the urban profile in 1914, giving rise to a model of urban physical structure composed of functional zones;

2. based on street block research units, the inner city is broken down into sub-study areas of broadly consistent building and housing density characteristics in order to test hypothetical urban form and land-use patterns arising during the study period;



3. the tenement house as a building form is examined as the urban fabric's dominant constructional component; building, functional and social characteristics may be interpreted in relation to location within the study area; constructional chronology, subsequent extensions or internal alterations are considered in relation to identified tenement house 'types', empirical examination of surviving building cells or landscape units constituting fragments of late-19th. century or early-20th. century urban topography within the modern Mid-Town (*Sródmieście*).

A methodological question crucial to the analysis has been the undertaking of an enquiry at varying scales (metropolitan area - inner city - functional zones - districts - street blocks as urban units - building plots accommodating tenement property cells with their internal structure) in an attempt to systematically analyse urban form development and the evolution of building form.

Historical analysis in urban geography of this period in particular is regarded as being of relevance to our own times, not least because the reinterpreting and rehabilitation of the 19th. century urban fabric (and in Warsaw's case the question of regenerating large parts of the inner city) have become pressing contemporary issues.

## INTRODUCTION

"Obszary centralne są dzisiaj zagrożone w skali światowej. Cięży nad nimi kryzys urbanistyczny miasta i kryzys kulturowy społeczeństwa. Zła znajomość społeczno-przestrzennych problemów tych obszarów może doprowadzić do podejmowania takich rozwiązań, które pozbawią centra ich wielowiekowych wartości humanistycznych a nie będą zdolne do wytworzenia nowych. Sprawa dotyczy o coś więcej niż o estetyczne czy sentymentalne względy. Poczucie tożsamości jakie umożliwia wielkie centrum jest podstawą kulturowej i moralnej stabilizacji wielkich wspólnot, po wspólnotę narodową włącznie. Poczucie integracji, które tutaj powstaje wśród różnych środowisk, kręgów i środowisk jest podstawą stabilizacji społecznej grup jednostek. Procesy informacyjnego metabolizmu jakie na tych obszarach przebiegają są pierwszym warunkiem funkcjonowania metropolii, regionu i kraju. Wreszcie różnorodne formy obcowania ludzi ze sobą w centrum oraz poznawanie i przeżywanie zewnętrznego świata należą do tych zjawisk, które nadają sens życiu."

"Burdened by the crisis in town planning and the cultural crisis in society, central areas are under threat on a world scale. A poor acquaintance with the social-spatial problems of these areas can lead to the adopting of measures which deprive the centre of its centuries-old humanistic values while failing to create any new ones. This is a question which goes beyond aesthetic or sentimental considerations. The sense of identity made possible by a great centre provides the basis of cultural and moral stability for great communities, including the national community. A sense of integration which arises here among various circles, sub-groups and generations is the stabilising factor for groups of individuals within society. The processes of creating and disseminating information occurring in these areas are fundamental to the functioning of metropolis, region and country. Finally, the diverse ways in which people communicate with each other in the centre as well as perceive and experience the outside world are significant in giving their lives meaning."

Aleksander Wallis. *Informacja i gwar*, Warsaw 1979  
(untranslated)

While, as the above quote strongly suggests, Wallis saw the city as forging a specific way of living and thus, like Louis Wirth some 50 years before him, advocated urbanism as a way of life, at around the same time the Spanish sociologist, Manuel Castells, in *The Urban Question: A Marxist Approach* referred to urban culture as a myth, interpreting 'urbanism' as "the cultural expression of capitalist industrialisation, the emergence of the market economy and the process of rationalisation of modern society". Although it may be felt that Wallis (a Central-East European) was biased towards a traditionalist interpretation of the city, while his 'central areas' perhaps do not correspond entirely with the western concept of inner city, the nevertheless real crisis in town planning to which he refers, together with what he called society's "cultural crisis", seen already by the 1970s to be inflicting many of the world's cities, has certainly intensified in the author's home city.

A basic contention seems to arise between the approaches of Wallis and Castells, both of whom were directly concerned with the question, or myth, of urbanism and the processes of urbanisation. The former, who, it should be emphasised, was very well acquainted with many of the world's major cities, propagated an urban culture as being fundamental to civilisation; the latter was questioning and even denying its relevance. Castells might have been implying that only radical, revolutionary restructuring of the entire socio-economic system (this is the Marxist approach, after all) will offer any permanent solution; Wallis, drawing on personal experience in Warsaw, would have argued that such attempts have already been tried but have proved, at least so far as the now defunct

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Second World is concerned, to be "not on a human scale". Both standpoints are seen as being relevant and stemming from a more basic question: the crisis in city and society whose existence at least both men would have wholeheartedly agreed upon and whose essence was already discerned by main contributors to the so-called Chicago school such as Wirth, Park and Burgess in the 1930s. However, the generally-acknowledged concept of crisis in urban areas has reached such a pitch in our own times it is being asked if the city is in fact not dying? (e.g. an article by E. Warren entitled "The city that destroys itself" about New York, published in *Fortune* December 1964 as one of the earliest expressions of this, although L.Mumford had already alluded to possible connections between megalopolis and necropolis in *The Culture of Cities* first printed in 1938).

In spite of the unprecedented degree of municipally-sponsored or state-directed planning in the quest for a better quality of life and a new urban structure, aided in many European cities by extensive destruction during the 1939-'45 war, no lasting solution has been procured for the "anomie", "mutual exploitation", "loneliness", "acceptance of instability and insecurity in the world at large as a norm", as well as "personal disorganisation, mental breakdown, suicide, delinquency, crime, corruption and disorder" listed by Wirth as typical symptoms associated with life in the city, and most particularly in metropolises.

Castells, far from being the only modern sociologist to do so, certainly was well justified in negating urban culture as a myth in our times and relating the urban environment to the nature of the socio-economic system

begetting it. In *Modern Architecture: A Critical History*, K. Frampton stipulates:

"Increasingly subject to the imperatives of a continuously expanding consumer economy, the city has largely lost its capacity to maintain its significance as a whole."

Frampton thus implies that the city once enjoyed such a capacity; if so, when? Another art historian in recent times, the German professor W. Braunfels, echoing the words of Mumford, Wallis and Frampton, wrote in his introduction to *Urban Design in Western Europe. Régime and Architecture 900-1900* that:

"Cities no longer form unities but serve both the interests of the individual and those of the state with its manifold business, the new 'one world'. They represent only to the most limited extent an independent corporate body, for their areas of existence are interwoven in different ways, with the states to which they are subordinated and with the rural areas that surround them. The Industrial Revolution, the unprecedented population growth as a result of medical advances, changed sociological conditions, new forms of traffic, the separation of work, living and leisure areas first stretched the old organisational structures and finally broke them up."

Lewis Mumford saw "the stimulus to urban expansion" as coming after the 17th. century "mainly from the merchants, financiers and landlords who served their needs",

emphasising that not until the 19th. century were "new forces", broadly categorised under 'capitalism', "greatly augmented by the pressure of mechanical invention and large-scale industrialisation". Like Braunfels, Mumford found a strong link existed between "commercial expansion" and what he called "urban dissolution"; even "civic destitution".

In reference to a specific urban centre, H. Büttner and G. Meissner underlined the essentially chaotic character of city growth which took over in the 19th. century;

"Our aerial photograph showing the development of the western part of Vienna reveals that, when confronted by the population explosion, the age of liberalism lost the urge for bold, purposive urban composition. Indeed, the demolition by imperial decree of the city's fortifications and their replacement by the Ring-Strasse (...) exhausted whatever impetus there might have been. Further west, suburbs and villages were indiscriminately engulfed by mixed residential and industrial quarters, unrelieved by trees or grass and laid out in an unimaginative, standardised grid-pattern in which the main and side streets intersect at right angles."

The *Ringstraße* project is a major example of urban planning on a large scale in the 19th. century. It might be interpreted as providing a link in the history of urban design between the "ideal cities" of the age of absolutism (e.g. Versailles, Nancy, Karlsruhe and 18th. century St. Petersburg) and the endeavours of town planning in our century to create order out of the chaos of the industrial

age city. Emperor Franz Joseph's decree of 1857 gave the go-ahead for developing the open space ring separating the mediaeval *Altstadt* from the suburbs, but the actual plan with its stipulated number of public buildings to line the *Ring* were financed by the selling of a large part of the original green area to private property speculators. The outcome was a truly grandiose series of monumental edifices, whose diverse, "eclectic" architectural programmes were subsequently much derided, while the newly-created districts isolated the *Altstadt* from its *Vorstädte* rather than connecting them. Moreover, and contrary to optimistic predictions in the 1850s, the *Ringstraße* scheme failed abysmally to solve the city's housing shortage; which had to await the progressive and municipally-sponsored apartment complexes of the 1920s.

A.B.Gallion and S.Eisner observed from the boulevard system of Paris, the other most-often cited example of "planning" in the 19th. century:

"The time was not right for solving the new urban problem. (...) Haussmann's scheme was gargantuan in scale, but it was too late to become an effective monument to the ego of a monarch, and too early to solve the planning of the industrial city."

The Second Empire's renovation of Paris was, nevertheless, effected on a sufficiently large scale to warrant N. Evenson's definition of it as "the most comprehensive programme of urban redevelopment ever experienced by a major" (western at least) "city". The effects on the French capital's social structure proved equally enormous, provoking a mass exodus of the working classes to the

suburbs where they have essentially remained ever since. 'Slum clearance' was carried out in some of the city's most ancient quarters; tenants of the demolished houses were evicted by landlords rather than being rehoused by council authorities.

Did the mid-19th. century drama of Paris preserve it from even greater transformation in more modern times? A. Sutcliffe concluded the urban form and social geography of the four right bank inner *arrondissements* underwent remarkably little change during the period 1870-1970. It is striking how the inner city has retained a very high proportion of its population in the 20th. century, compared, for example, with London or Manhattan (cf. table overleaf). The cost of Paris retaining its overwhelmingly 19th. century urban fabric (cf. Fig. A1) has arguably been paid by its *banlieu*, where three-quarters of the metropolitan population had come to be living by the 1970s.

In Hamburg, where early-20th. century municipal Planning had already led to the redeveloping of large parts of the mediaeval core, the inner urban population has remained high (ie just under 50% of the total number of inhabitants in 1981), in spite of extensive wartime bombing (33.2% decline between 1939 and 1950 with a 5.7% recovery up to 1961). Nevertheless, the highest demographic rise has taken place not in the suburbs, but beyond the municipal area: +89.8% in 1939-'50; +46.3% in 1950-'81, by which time about one million of the Hamburg region's 2,623,000 inhabitants were residing.

Warsaw's municipal area was vastly expanded in 1951, but restrictions on rural migration and 'deglomeration' policies in the 1960s have encouraged a population explosion outside of the city (administratively defined



TABLE: Demographic change in the inner and metropolitan areas of selected cities since the mid-19th. century.

CITY/METROPOLIS	mid-1800s	early-C20	late-C20
LONDON (inner)	2,363,341	4,536,267	2,497,978
(Greater)	2,651,939 (1851)	6,586,000 (1901)	6,713,165 (1981)
PARIS (inner)	1,000,000	2,657,335	2,299,830
(Greater)	1,250,000 (1851)	6,500,000 (1901)	9,878,524 (1975)
NEW YORK (Manhattan)	515,547	2,300,000	1,200,000
(city limits)	? (1850)	4,766,883 (1910)	c.8,000,000 (1980)
BERLIN (Altberlin)	548,000	2,095,000	910,000
(Großberlin)	? (1861)	3,800,000 (1912)	3,110,500 (1975)
VIENNA (innerstadt)	551,300	994,000	414,063
(Großer Wien)	? (1850)	2,005,000 (1910)	1,531,346 (1981)
ROME (citta)	180,000	520,000	2,356,490
(Greater)	? (1850)	? (1907)	3,781,993 (1975)

WARSAW

	"Main City" (inner leftbank)	Greater Warsaw	deglomerated periphery
1856	c.150,000	?	
1890	c.400,000	523,300	
1913	c.700,000	1,090,000	
1938	750,658	1,280,449	
1945	86,402	377,926	109,600
1970	204,400	1,315,600	667,800

Statistics taken from various published sources (refer to list at end of "Introduction")

# Le tissu urbain parisien des XIX<sup>e</sup> et XX<sup>e</sup> siècles

## Une cartographie

A partir des études de François Loyer, l'Atelier Parisien d'Urbanisme a établi une série de cartes couvrant Paris. La datation et la qualité des constructions et des espaces publics y sont figurées au niveau de chaque parcelle ou de chaque partie de voie. Les planches reproduites ici reprennent les documents de synthèse concernant tout Paris, mais ne présentent que quelques exemples de l'analyse minutieuse et complète qui a été effectuée.

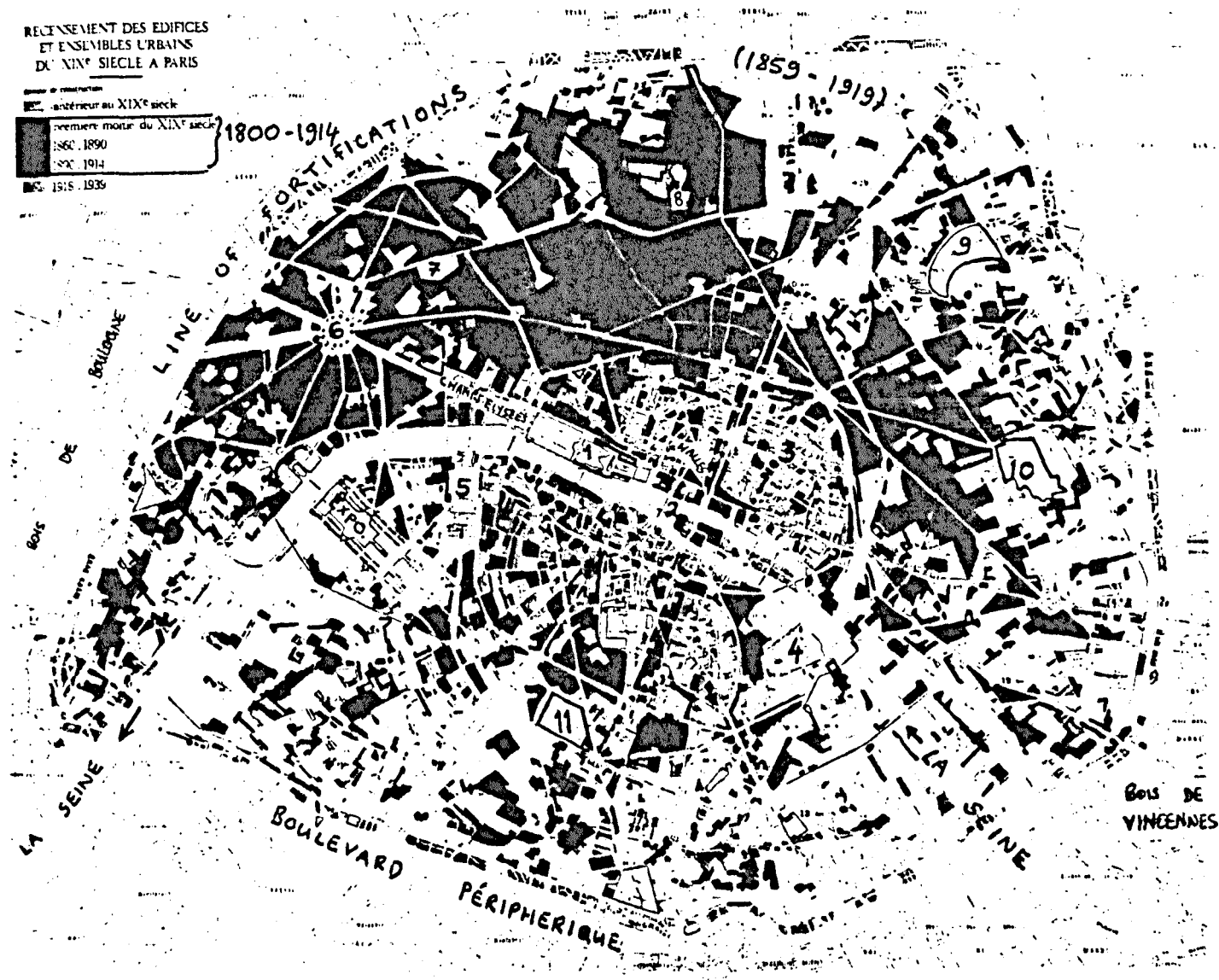


Figure A1: The 19th-century urban fabric of modern inner Paris (according to l'Atelier Parisien d'Urbanisme; cf. F.Loyer, "Paris XIXe. siècle. L'Immeuble et la Rue")

### Points of orientation:

- |                           |                                 |
|---------------------------|---------------------------------|
| 1 The Louvre              | 6 L'Etoile                      |
| 2 Isle de la Cité         | 7 Parc Monceau                  |
| 3 Le Marais               | 8 Sacré Coeur/ Butte Montmartre |
| 4 Botanical Gardens       | 9 Parc des Buttes Chaumont      |
| 5 Esplanade des Invalides | 10 Père Lachaise                |
|                           | 11 Montparnasse Cemetery        |

0 1000 m

1: 50,000

since 1974 as the capital city 'voivodship'; *województwo stołeczne warszawskie*). The inner urban populace by 1970 numbered less than 250,000, with more than a million in the suburbs and a further 660,000 people residing beyond the municipal limits (in 1981 the Warsaw metropolitan region, covering an area of almost 3,800km<sup>2</sup>, recorded 2,341,800 inhabitants, the inner leftbank Mid-Town 208,400, compared with 750,328 in 1938 and 86,402 at the end of 1945).

The quest to improve living conditions in the city and to raise the urban community from the depths to which it was perceived to have sunk during the Industrial Revolution became increasingly concerted in the 20th. century. In the field of housing great steps were taken during the 1920s, aided by growing municipal activity, the financing of housing cooperatives, curbing of at least some of the landlord's powers over his tenants through the introducing of fair rent policies and tighter building regulations. It was during the inter-war years that German architects, as well as Le Corbusier, began to advocate the skyscraper as a solution to the metropolis's housing problems, but only in the wake of World War II were such concepts realised in the form both of public housing projects as well as private developments supported by government aid programmes as part of "urban renewal" legislation. However, the first skyscrapers had been primarily commercial concerns, originating during the 1880s in Chicago and eagerly adopted soon after in New York. The world's tallest edifice for a long time was called the Empire State Building and Manhattan's skyscraper skyline became perhaps the ultimate symbol of market economy. As early as 1870 New York's population density was significantly higher than that of inner London, even though its population was three times

smaller.

Unfortunately for the advocates of a "contemporary" or "new" city, with its large apartment houses in a park-like setting, the multi-storey residential estates raised in the cities of both capitalist and planned economies since the 1950s, despite their inner open spaces, have tended to retain the high residential densities of the terraced row or tenement slum areas they frequently replaced. In western countries some of these estates have themselves been demolished as slums; e.g the Pruitt-Igoe Housing Project in St. Louis. In "communist" countries prefabricated 10-, 15- or 20-storey "dormitory blocks" and satellite townships on the periphery of "deglomerated" cities have become symbols of a nightmarish bureaucratic system which created them.

It could be argued that in the cities of capitalist or market-economy orientated states what Mumford called a "meaningful and valuable social life" has continued to be undermined by the "profits of congestion":

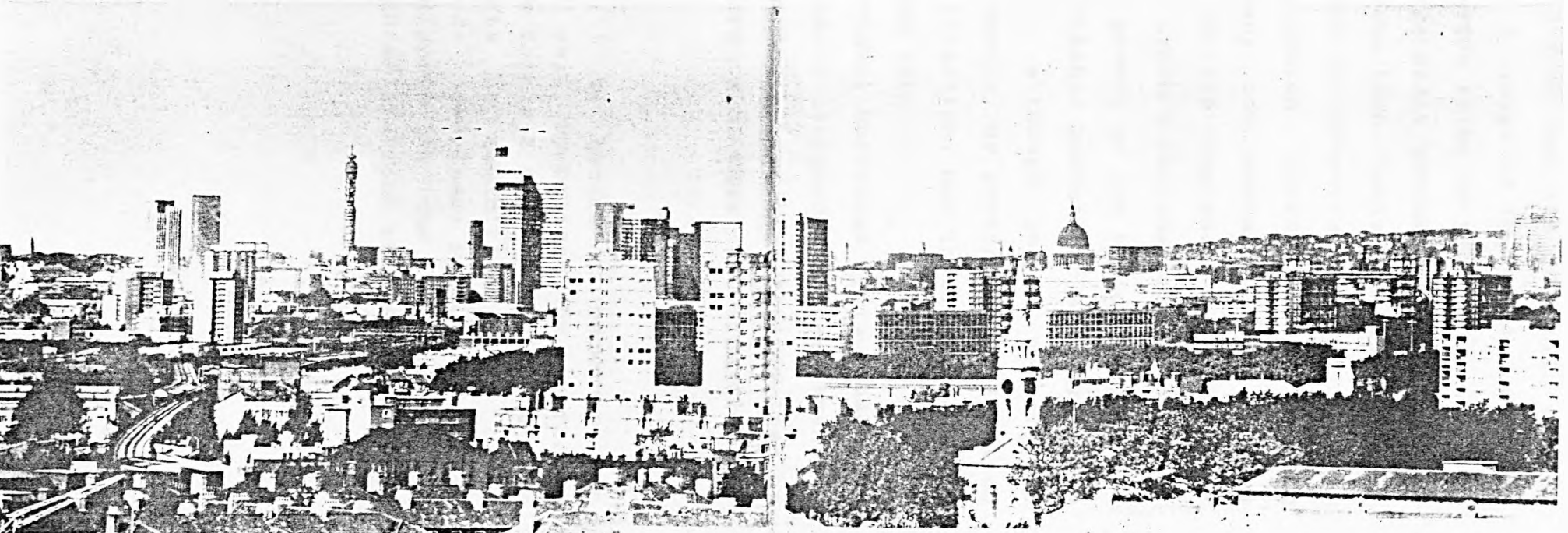
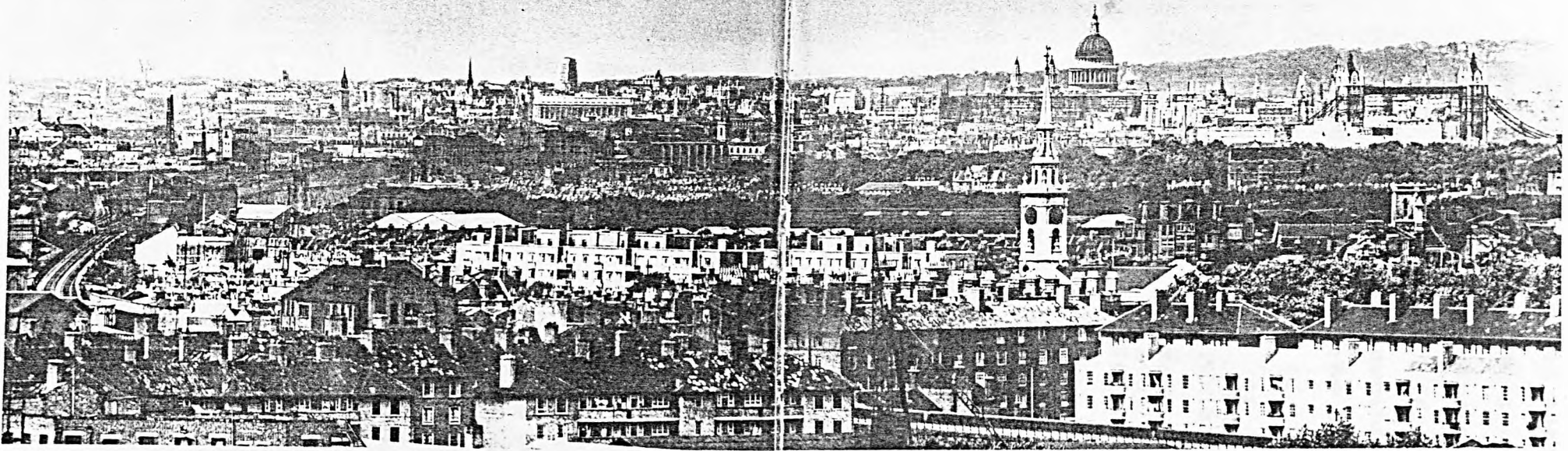
"an expanding economy, indeed, capitalism's prospects of profit, which rested on continuous turnover, demanded the continuous destruction of old urban structures, for the scale of their profitable replacement at ever higher rents."

Taking this maxim into the realms of literature, Mumford's process of "continuous destruction" is made tangible in Doris Lessing's *Four-Gated City* as her alter ego anti-heroine contemplated the post-war reinvigoration of the developed world's oldest multi-million city:

"But London heaved up and down, houses changed shape, collapsed, whole streets were vanishing into rubble, and arrow shapes in cement reached up into the clouds. Even the street surfaces were never level; they were always 'up', being altered, dug into, pitted, while men rooted about in them to find tangled pipes in wet cables, for it seemed as if the idea of a city or town as something slow-changing, almost permanent, belonged to the past when one had not needed so many pipes, cables, runnels and types of machinery to keep it going. If time were speeded up, then a city must now look like fountains of rubble cascading among great machines, while buildings momentarily form, change colour like vegetation, dissolve, reform."

Lessing's graphic metaphor seems especially poignant in reference to this quite ancient city; particularly in relation to the post-1945 era during which the skyline has been subjected to unprecedented transformation (cf. Fig. A2). In their attempt at evaluating the irreparable damage wrought on its architectural heritage during London's post-war redevelopment, C. Baker and C. L. Green stated that, apart from apparently being "an inescapable product of late-20th. century society", modern development tends to produce "an architecture distinctly lacking in local character, so that (...) London itself becomes indistinguishable from almost any other major city in the world". It is interesting to note that P. Goldberger made a similar complaint about the Manhattan skyline which he saw as having being invaded since the late-1950s by banal commercial blocks of reinforced concrete and glass unworthy of their classical-inspired, early-modernist or art-deco

Figure A2: Transformation of inner London skyline (1951-1981)



Two views from Point Hill, Blackheath, South East of St Paul's, 1951 and 1981.

(Source: C. Amery, "Wren's London", London 1988)

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precursors (it would indeed seem that the idealised tourist or prospective immigrant's image of the New York skyline continues to rely on pre-1960s films or photographs).

The monotony of large-scale urbanisation had already been recognised during the 19th. century in the crowded, dreary 2-storey row houses of industrial England, no less than in the 4- or 5-storeyed "corridor streets" and "well-courtyards" of many continental tenement house districts, as well as in the "railroad" and "dumbbell" tenements of New York. K. Lynch's rationalisation of 19th. century large-scale city growth as the building of "a new landscape to permit profitable production and cumulative concentration of capital", although joined in our own century, at least until recently, by government legislation and active municipal participation, has in effect remained fundamental to shaping urban form.

The occupying of individual buildings by land-uses for which they were not originally designed and their eventual demolition may be seen as indicative of a "steady loss of form" perceived by Mumford and thus in line with the "commercial city's":

"ultimate fate (...) to become a backdrop for advertising: a fact well symbolised by the recent transformation of New York's 2 railroad stations from great public monuments to exhibition halls of a commercialisation whose tawdriness by contrast gives almost a regal dignity to the financiers who originally conceived these stations with some sense of public obligation."

Within two years of the *City in History's* publication, the most celebrated of these 2 railway termini, and one of the most impressive constructional achievements of the railway era, was pulled down; barely half a century after its opening, about which "monumental act of vandalism" the *New York Times* had the following to say:

"Any city gets what it admires, will pay for, and ultimately deserves. Even when we had Penn Station, we couldn't afford to keep it clean. We want and deserve tin-can architecture in a tin-horn culture. And we will probably be judged not by the monuments we build but by those we have destroyed."

The lamentation over lost urban heritage and wasted opportunities may often sound sentimental, but its repetitiveness from Boston to Los Angeles and Glasgow to Bucharest is striking, irrespective of how what has been and is happening to our cities is interpreted. The *Times's* article of 30th. October 1963 may serve as an indictment of the way 20th. century planning, as much in western as so-called communist societies, has proved all too willing to sacrifice buildings or entire chunks of the urban fabric through the application of its own logic; e.g. real-estate in capitalist countries or "socialist-realist" in communist states. Pennsylvania Station had become a monument of gigantic proportions to another age, no less than Berlin's Anhalter and Lehrter railway termini and London's Euston Station, each of which was dynamited and bulldozed at this time. At least, that is how things looked in the 1960s. However, two decades later Manchester's disused Central Station was spared a similar fate through its adaptation



into an exhibition hall (*plus ça change ?*), while Paris's Gare d'Orsay has been revamped to serve as one of Europe's most prestigious art museums.

In larger European cities the documenting of demolished buildings reaches back into the 18th. or even 17th. centuries, usually in connection with the activities of absolutist monarchies (e.g. extending the Royal Castle in Berlin and creating a parade ground, subsequently known as the *Lustgarten* on the first cathedral's site), or the rebuilding of towns destroyed by fire or some other localised calamity (such as the post-1666 redeveloping of London's City). Only in the second half of the 19th. century did the replacing of town houses or other edifices in central districts by commercial or semi-residential buildings of increasing height, to accomodate office or administrative space, ever-larger retail areas, department stores, industrial machinery etc., become ever more evident, further stepped up in the 1900s. The average lifespan of a building in Middle or Lower Manhattan this century, like that of Pennsylvania Station, has tended not to exceed 50 years; in the larger cities of North-Western Europe, regardless of wartime destruction or post-war reconstruction, about twice as long.

Nevertheless, Lessing's "fountain of bricks" would appear to have been slowing down more recently. In Paris, for example, since the Malreau Law of 1962 was introduced the *Marais* quarter has gradually been restored to become a very fashionable residential as well as tourist area; while in London the extensive redevelopment plans for Piccadilly and Covent Garden from the early-'70s have been shelved and the latter district especially has become one of the city's most popular, not to mention

commercially lucrative, central districts. Regardless of local residential opposition, similar concepts are likely to be realised in the Spitalfields and Brick Lane quarters of the inner East End. The last 2 decades have witnessed in numerous American cities, headed by New York, widespread attempts at "row house renovation" and "neighbourhood renewal activity" which some have gone so far as to call the "brownstone revival" in "renaissant 19th. century enclaves" of the inner city. Over large parts of inner Berlin "a model of reconstruction for (...) block structure with old houses edging the street" has been carried out under the aegis of an "international building exhibition" (*Internationale Bauausstellung, 1984-1987*).

Many people from various walks of life have found cause to applaud the recent rejuvenation of at least certain inner urban districts, while more has been published by urban planners or others on urban design and by architects about architecture over the past dozen or so years than ever before. Reinvigorating inner urban quarters has been said to bring about long term social and economic benefits to the city, encouraging mixed use in revamped buildings and the residential conversion of what still remained of manufacturing activity in such areas. The traditional base in declining industries, and with it the traditional population remaining here, has tended to be replaced with activities and people deriving their wealth from the service sector. Rents and land values have soared. Private developers have again become responsible for some of the larger conversions or "gentle" redevelopment projects along inner city streets and in inner city street blocks. Subsidies for such projects have been supplied by the municipal authorities or state

governments, themselves either unable or choosing not to fund such undertakings themselves.

"The recent reconquest of the downtown by high-rent, high-class uses, the re-creation of an urban middle class, and the use of art and culture to further these ends - these local characteristics of deindustrialisation are repeated in major cities throughout the capitalist world" (such as) "London and Paris, Birmingham and Lille, Philadelphia, Boston, Baltimore, San Francisco..."

A main question to be asked about inner urban rehabilitation is to what extent speculative development, so dominant in 19th. century urban growth and always present in at least the western city's 20th. century continued expansion or redevelopment, has not reimposed itself as the main force shaping the urban environment. Considered in the context of running down public services, outdated and failing communal facilities, the growing homeless as well as unemployed urban population, can the done-up brownstones and lofts of New York or Wapping's warehouses be viewed as components in the successful rehabilitation of the city as a whole; or are they in fact not the new districts of a (new?) social elite?

A growing housing crisis by the late-19th. century was being observed in many of the industrialising world's major cities, in part provoked by extensive demolition by railway companies, the city centre's "commercialisation" and the resultant overcrowding in neighbouring districts. Increasingly at this time it was being acknowledged that the market could no longer be relied upon in a conventional way to solve housing problems. Public housing schemes

introduced in the 1920s, virtually halted by the Great Depression, reintroduced after the Second World War when planning assumed proportions never before conceived in history, has proven more recently to be reliant on the authorities' ability to enlist the private sector as a partner; particularly in the United States where Zukin writes of the "informal relationship between the federal government and local real estate developers" and even the "nationalisation" of the real estate market. The clearing of "blighted" areas and their replacement by new buildings; i.e. housing estates so characteristic of inner urban planning in the 1960s and 1970s by municipal authorities or developing companies in cooperation with local government, would seem to have had its day.

"At first it seems curious that the very high degree of planning imposed on the city of (West) Berlin and the total absence of planning in central Docklands tend to produce the same result: large chunks of housing separated from each other. The congruity is too close for coincidence: in many ways, European Modernist planning theory from the Charte d'Athènes was, for all its social (and socialist) commitment, a rationalisation of the kind of uni-functional enclaves that early-20th. century capitalism was producing quite naturally without planning."

(Peter Davey "The Architectural Review", April 1989)

Davey here was apparently questioning the historic relevance of the Athens Charter's programme while offering an apology for certain "naturally" evolving private property developments predating the Charter. Although he severely criticised the first phase of development in

London's Docklands as "banal, crude commercial hulks, which sit like clusters of boils among the despoilation of surrounding areas by a thin rash of Neo-Vernacular housing which is totally inadequate for the inner city", Davey drew much consolation from the "second stage" of housing construction. The new definition of Docklands' physical redevelopment has shifted from a "need-based" planning philosophy in the 1970s to one of "demand-led" planning in the light of severely reduced public spending. Similarly, the regentrification of Manhattan's SoHo quarter has been recognised by Zukin as being "a creation of the investment climate", rather than any spontaneous moves, propogated by the media, to create an indigenous community. The Senate Statement on Berlin's International Building Exhibition felt it expedient to commend rather than express any concern over "the reduction in population" of inner city areas, seen in this way to have provided an "opportunity in town planning to create new free areas in the urban organism". Zukin found reason for concern in what may be construed as a new phase (or in economies subjected to a greater degree of central planning than the U.S.A. as the reimposition of capitalist urbanisation) in the continuing deindustrialisation of large urban regions, the service sector's rising importance, changes in labour processes, the reorganising of housing markets, with special emphasis on so-called gentrification and the increasing ghettoisation of a permanently unemployed underclass:

"What we see now in cities that persue the dream" (of 'post-industrial' regensis) "is painful dislocations in the workforce, the expansion of offices and middle-class housing into former working-class and

manufacturing *milieux*, and political realignments that are based on which social classes, and which economic activities, have the right to use the city's space."

It is precisely this reimposing of capitalist urbanisation that a former Second World big city such as Warsaw is facing at present. It is in the light of the resurgent forces of market economy that the relevance of the research undertaken, beyond its value as a study in urban geographical history, will hopefully be considered. Since Warsaw has apparently reached a watershed between an era of centralised planning and reactivated, neo-capitalist private enterprise, now would seem a particularly relevant time to ponder over past phases in its urban growth; to evaluate remnants of an urban fabric with its component building forms generated by past processes. Emphasis is to be laid on housing as the "common denominator" and "fibre" of the city, whose built-up area and "family dwellings" are seen as being "almost synonymous" with each other (Gallion and Eisner).

The single urban case study selected was severely destroyed primarily by international conflict, but also, if to a considerably lesser degree, by subsequent post-war development. A reevaluation of surviving pre-war building forms within the inner city landscape, or *Stadtlandschaft*, is regarded as significant in helping to provide a more informed basis for drawing up future urban policy. The tenement house, or formerly private-owned multi-apartment housing block, appearing from the mid-19th. century, is perceived to be the dominant building type during the study period and the element in the physical urban structure taking shape until the First World War. Processes at work in the late-19th. and early-20th. centuries are interpreted as being the domain of a "small class" which built or

restructured inner Warsaw's pre-Second World War landscape, seen as a "tenement-barracks-city" (*Mietskaserne*stadt); i.e. groups of capitalists profiting "both from the production of goods and" (above all in the case of this city) "from the renting of sites for production and housing" (Lynch).

A major objective, therefore, of the research undertaken is to place the urban inheritance of Warsaw's 19th/early-20th. century development (the tenement house) in its historic urban and social context. The urban case study selected is assumed to fit into a widely-accepted model of 'industrial age', *laissez-faire* capitalist growth. The study period covers the city's transformation within half a century into a 'big' city (*Großstadt*), or metropolis (exceeding one million inhabitants by 1914, compared to some 200,000 in the early-1860s).

Although taken to be the dominant building form to emerge during large-scale urbanisation (*Großstadtentwicklung*) at this time, the multi-apartment and often multi-functional tenement house was spatially restricted to the Mid-Town (*Śródmieście*) and immediately adjacent (inner) districts. Suburban wooden districts, or shanty towns, are conceived as an "urban outback" or by-product of urban development at that time which simultaneously created the "tenement-barracks-city". A question arising in connection with this antithetical urban form and its constituent building type, the wooden house or cottage, is the extent to which limitations imposed by the tsarist authorities on Warsaw's spatial growth, especially from the late-1870s, might have imposed themselves on the internal structure; more specifically on the developing physical urban form (Polish inductive interpretation). Given that the social-class structure of these outlying wooden districts was overwhelmingly proletarian, while that of very substantial parts of the inner city decisively middle-class

or middle-class orientated, Warsaw's physical urban structure might be viewed as being a particularly extreme expression of social stratification in the *laissez-faire* economic system (compare with J. Basti on the Parisian *banlieu*; also inter-war Polish social comment, as well as selected "socialist" literature of the post-1945 era which was not, in spite of everything, entirely the voice of new-state propaganda. Refer to entry no. 68 in "Notes").

The spatial dimensions of a theory of social stratification is based on the generally-accepted notion that residential areas in 'capitalist' cities become segregated, manifesting in the process a hypothetical class system. The influence of social class in urban development at this time is rationalised as being characterised by the activities of private speculators constructing tenements with the prime or even sole intent of procuring rents, thus fully profiteering from the real estate belonging to them in the city. A rising middle class seized the initiative and played an increasingly dominant role in shaping the physical urban environment during the period under investigation. Assuming land, and in particular housing, speculation became a major or dominant factor shaping urban form before 1914, it would be expected that owners sought to put real estate or housing in their possession to maximum profitable use. The resulting high density development of private property could be curbed only by powerful municipal or central government legislation; the former, however, was seriously hampered by the latter, based as it was in a distant capital of what in effect was an occupying, foreign power.

"Varshava in Russian, Warszawa in Polish, and Varshe in Yiddish: all three aspects of Warsaw must be considered to produce a balanced view of the city in the 19th. and early-20th. centuries."

S.D. Corrsin



Apart from a very strong military presence, reflected in the prohibition of building over extensive areas of both inner city and suburban areas - as well as the occupying on a localised scale of certain key buildings to serve administrative, religious or ethnic/cultural functions - tsarist state intervention is not regarded as having played any direct hand in the actual process of urban growth or in the creating of a "new" (built-up at least) landscape. Municipal government under Russian rule was reduced to the status of a subsidiary state institutional body dependent on St. Petersburg's agreement to introduce new measures. Until it began to borrow from private banks, the City Council was funded entirely by central government, although it did succeed in initiating a number of projects of fundamental importance to the city's development, such as the new water-supply and sewerage system implemented in the Mid-Town, somewhat later in Praga, but only to an insignificant extent in the suburbs, from the 1880s (W.H. Lindley materials 1883-1915). Police regulations would appear to have maintained a certain degree of continuity in shaping building development and are seen as being instrumental in forming a characteristic block plan. However, building legislation did not prevent - as had originally been intended during the Home Rule era preceding the period under study - a perceived and mounting "urban chaos" (*chaos urbanistyczny*).

In identifying three major factors shaping the city's spatial structure, G. Węciawowicz included the rebirth of Polish statehood and the city's recovery of its capital functions. In the 1864-1919 period of investigation it is Warsaw's incorporation into the Russian Empire which created the political background to capitalist industrialisation with its consequent effects on socio-economic structure and dynamic population growth up to the First World War. While being directly effected by the Alexandrine reforms of the

early-1860s, emancipating the peasants and giving the Jewish community a degree of social equality, Warsaw was the only city in the Empire not to be granted a council (*gorodskaya дума*) or an executive board (*uprava*) by the Municipal Statute of 1870. Although remaining in a majority throughout the late-19th. and early-20th. centuries, the Polish community (59.1% of the population in 1864; 55.2% in 1914) might be assumed to have been the dominant ethnic group directing the city's growth only after Polish independence was regained in 1918. Nevertheless, it was the Polish language and cultural values adopted in the main by assimilating Jews in the city. The incidence of Judaic conversion to the Christian (and inevitably Roman Catholic) faith was higher than in any other European city. In 1897 55.7% of the population declared itself Catholic by religious denomination, but as high as 61.2% named Polish as its native language (28.3% Yiddish, but 33.7% Judaic; increasing to 38.1% by 1914).

To advance the geographical interpretation of the city's development sequence until 1914, methods which might be employed in an analysis of spatial areas subsequently removed from the urban landscape have been investigated (apart from districts where at least cells or landscape units of the "tenement city" have remained in the modern urban physical structure). An examination has had to be made of the almost completely eliminated Jewish legacy, perceived as a major 'missing link' in pre-holocaustal Warsaw's social structure, economic life and its urban form. As early as 1847; and thus long before mass immigration of "Russian" or "Lithuanian" Jews to Congress Poland, 17 of Warsaw's 20 resident bankers and more than half of those engaged in trade and commerce were Jewish. Particular attention has been focussed on the Nalewki district as the main, but by no means only, area of Jewish settlement in the Mid-Town (c. 92% of the population) The influence of ethnic

and religious factors on building form in identifiably Jewish quarters is considered. Some former Jewish-owned properties have survived to the present in ex-Grzybów commissariat (Próżna St. and Grzybowski Square), but nothing has remained of the neighbouring quarter situated 'behind the' Iron Gate (Żelazna Brama) Square where Jewish traders, merchants and creditors once operated or ran their businesses. These latter districts had apparently taken shape independently of the Nalewki and the communities of these two areas shared comparatively little in common with each other. Jewish urban society would appear to have been as segregated as the Christian, although class consciousness and class divisions were apparently expressed primarily through religious affiliations and cultural orientation. A strong divide existed between the tenement residents of Nalewki (Jewish middle class) and a proletarian populace living in deprived quarters situated 'behind' (i.e. west of) Smocza St. in the Okopowa quarter; a district where consistent tenement barracks housing failed to take shape.

Warsaw's *haskala* community, adopting Polish or less frequently Russian language, clothing and customs, was represented chiefly by plutocrats or affluent upper middle-class families and largely segregated from the orthodox, Yiddish-speaking majority. These groups took up residence in the wealthy city centre or newer southern Mid-Town districts associated with the Polish professional and upper classes at least until the early-1900s when they began to gradually move out to the suburbs, apparently leaving their apartments to be subdivided and rented out to the lower middle classes.

"(...) neither the multiplicity of types nor the new historical circumstances contributed to the further development of this" (building) "type; rather they were conducive to the disappearance of important formulative

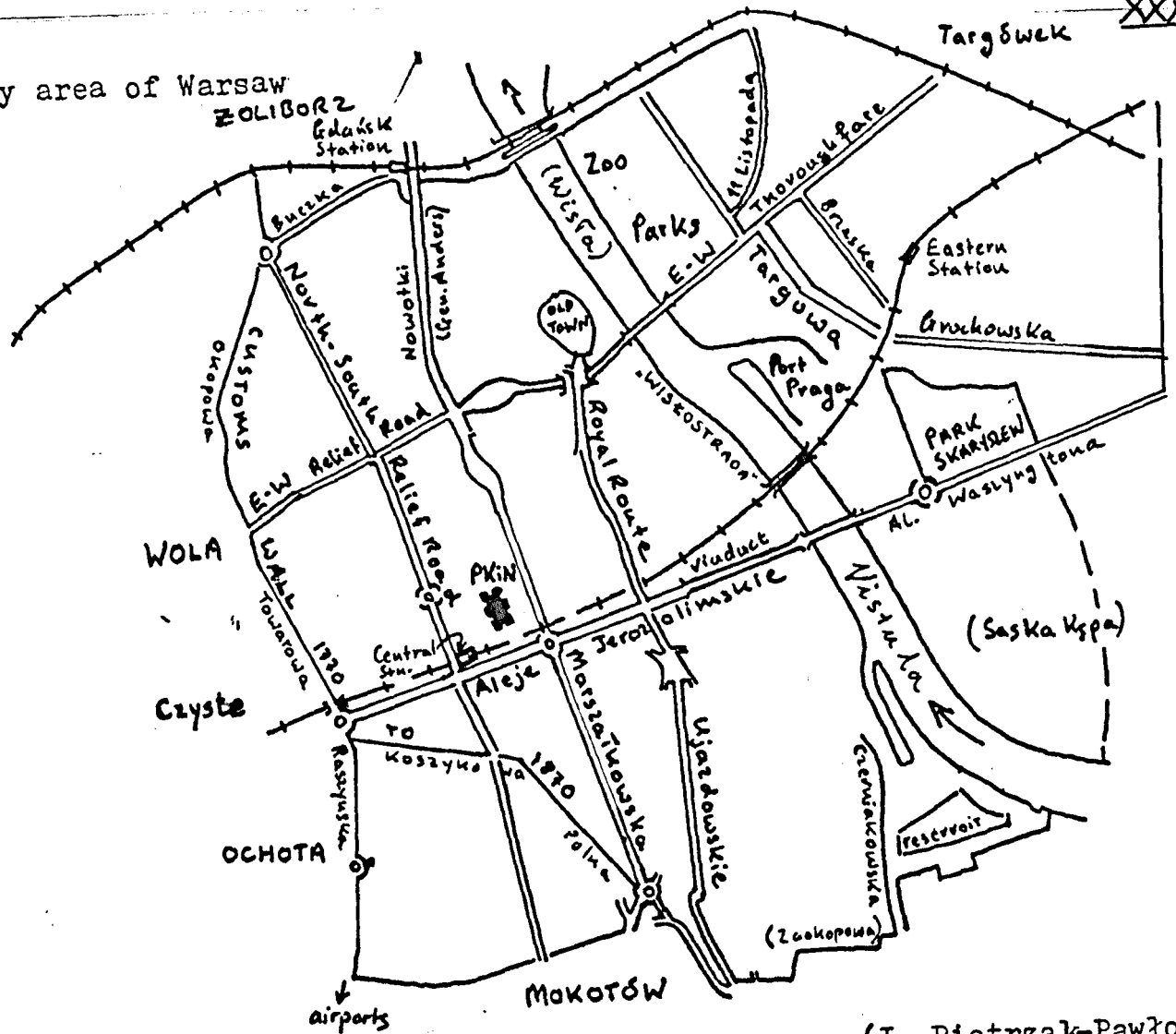
elements, a process already evident in the 18th. century and now approaching its climax. As an architectural type the middle-class town house had had its day."

Büttner's and Meissner's assessment of the middle-class European town house's demise during the Industrial Revolution relates to the rise of tenement dwellings; only in the case of Warsaw this demise did not wholly occur until the mid-1800s. The tenement, on the other hand, was the first residential building form to incorporate on a mass scale the technological innovations introduced to domestic living in the form of gas and electricity, drainage, piped water, the water-closet, central heating, telephone, electrically-powered lift etc. Just as the laying out of Vienna's *Ringstraße* or Haussmann's boulevards may be interpreted as precursors of 20th. century urban planning, the middle-class tenement in continental cities or well-to-do row houses in Britain constituted the first mass-constructed housing form in populous cities, often raised in groups by speculative builders and in accordance with a set design.

In spite of enormous changes effected in the 20th. century, resulting from wartime damage and altering land uses, as well as redevelopment schemes, the tenement remains a significant element in the modern inner urban landscapes of many European and North American cities; especially in continental Europe's three leading 19th. century metropolises, Paris, Vienna and Berlin. Despite extensive wartime destruction, the Warsaw tenement remains an important building form in the urban fabric of the left-Vistula bank Mid-Town while even continuing to prevail over post-war development in the inner rightbank district of Praga (cf. Fig. A3). Attention has been turned to dilapidated inner urban housing stock only since the 1980s

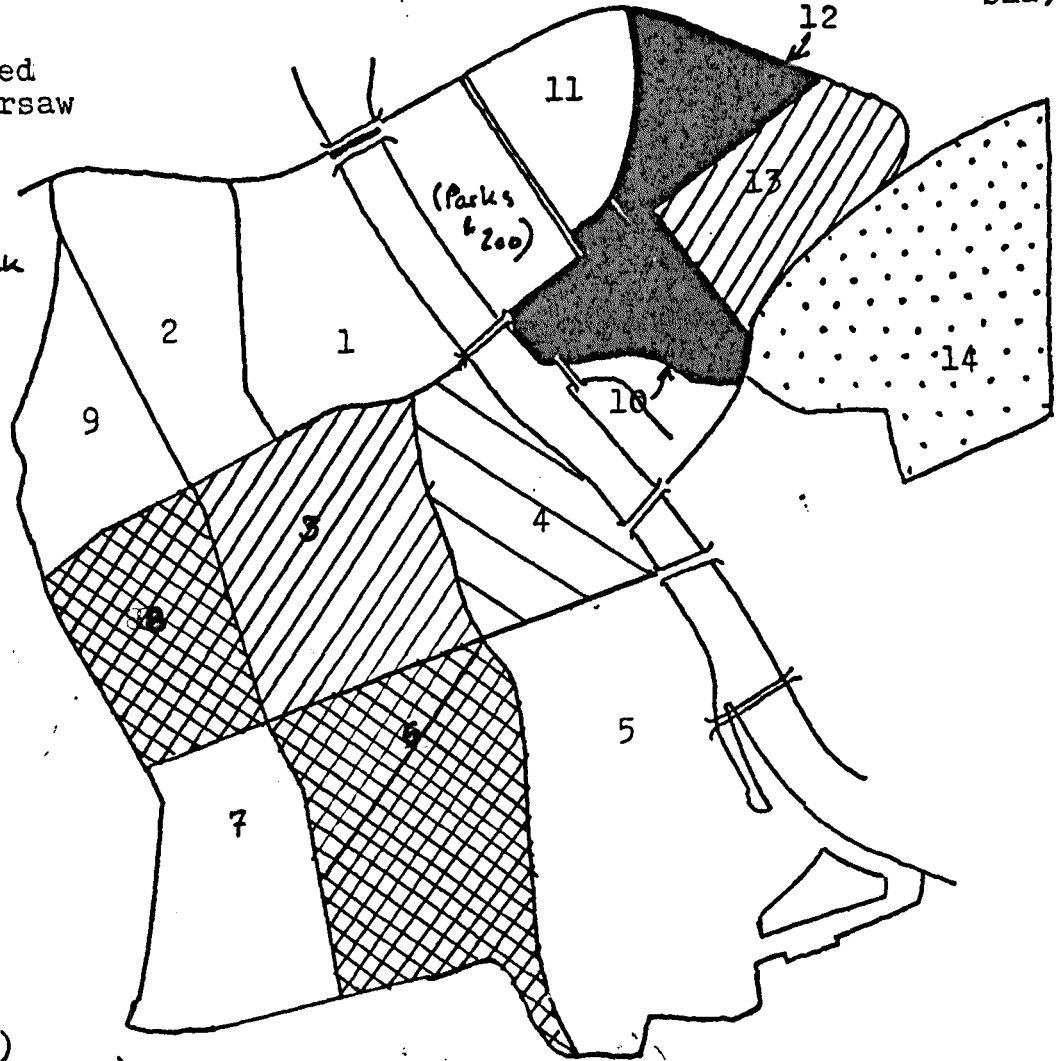
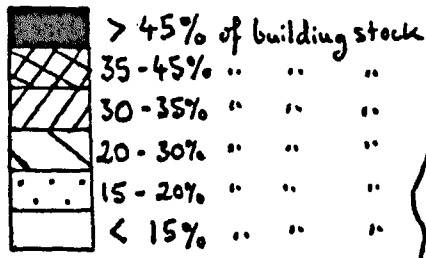
Figure A3:

The inner city area of Warsaw



(I. Pietrzak-Pawłowska)

Surviving or rehabilitated housing stock of inner Warsaw predating 1914 (in 1975)



Sub-districts (key)

"ŚRÓDMIEŚCIE"

- 1. Stare/Nowe Miasto
- 2. Muranów (East)
- 3. City Centre (North)
- 4. Powiśle (North)
- 5. Powiśle (South)
- 6. City Centre (South)

"WOLA" (inner)

- 7. Mokotów Fields
- 8. "Western Mid-Town"
- 9. Muranów (West)

RIGHTBANK

- 10. Central Praga
- 11. "New" Praga (estates)
- 12. "New" Praga (Konopacczyzna)
- 13. Szmulowizna
- 14. Kamionek

source: "Atlas Warszawy" (1975)

and, apart from certain schemes 'on paper', inner city renewal policies on a scale witnessed in Berlin (IBA) or Paris (*aménagement* projects) have yet to be realised over extensive areas left fallow by the war and post-war clearance (particularly in the Western, North Muranów and Powiśle districts).

Some broad presuppositions arising in connection with the research topic demand substantiation.

1. The period under investigation in a Central-East European context witnesses the unfolding of large-scale industrialisation. In a wider, European and North American context the so-called *Hochgründerzeit* was a late phenomenon (later still in Russia itself; refer to entry no. 30 in "Notes").

2. The years 1864 and 1919 may be seen to have an essentially symbolic importance. However, in Eastern European countries the symbolism of certain dates or years tends to be greater than in the western world, signifying in certain cases a watershed between one 'period' in social and 'national-historic' interpretation and another.

The year 1864 is generally regarded as being one such definitive point in the history of Central (Russian) Poland, witnessing as it did the liquidation of regional autonomy and essential incorporation into the Russian Empire following the crushing of an insurrection. From an economic point of view, the Polish Kingdom was already being integrated into an enormous Russian market from 1850 when the customs barrier in force along the River Bug had been lifted; to be followed up in 1877 with the protecting of "Polish" and "Russian"-based industry from western competition by the establishing of a tariff frontier with the German Reich. This economic integration was followed up by the introduction in Russia from 1861 and the Polish Kingdom from 1862 - delayed further by the January

Insurrection - of agrarian reform, including peasant emancipation. Not even the Jews were excluded from the Alexandrine reforms; they were assured equality (at least within the Pale of Settlement), meaning they could trade and even settle wherever they wished. In broad terms Warsaw switched from being a quite small regional capital (according to S. Kieniewicz European city no. 17) to a politically insignificant but economically powerful, major communications centre between western Europe and the Russian Empire (ranked within the top 10 most populous cities of the continent).

"If there has ever been a single year marking the end of one era and the beginning of another that year was 1914." (A. L. Rowse)

Within three years of the outbreak of war tsarist Russia would be no more and another 12 months or so after that the German and Austro-Hungarian reichs would also have disintegrated, while Warsaw would be the capital of a reconstituted state. In 1919 new building legislation and rent controls were introduced by the new municipal administration. As such, it was this year which theoretically spelled the end of uncontrolled property speculation and the tenement house as it had evolved during the preceding epoch (cf. fig. A4 overleaf). The 7-, 8- or even 9-storey "well-courtyards" certainly became a thing of the past, but the courtyard warrens had already become an inextricable element of the inner urban fabric; inextricable at least until the ensuing world war.

3. The tenement house is defined as "barracks"-type housing, subdivided into multiple dwelling units; i.e. *Mietskaserne* (German) or *kamienice koszarowe* (Polish), rented out by owners or middlemen landlords. They were put up by owners usually with the primary objective of being rented out to tenants; i.e. "rented-barracks: ("Miet" being the German for rent). The Polish *kamienice koszarowe* was known alternatively as *kamienica czynszowa* or *kamienica dochodowa*; "czynsz" meaning rent and "dochód" meaning income. The distinction between tenemented property and dwellings in houses rented to tenants by owner-occupiers is fundamental to the defining of tenement housing (refer to "Glossary"). The appearance and diffusion of the tenement is seen as coinciding with the demise and gradual replacement - or tenementisation - of the town house (*das Bürgerhaus*) of pre- and early-industrial times (H. Büttner, G. Meissner, E. Lichtenberger, J. W. R. Whitehand, A. Gut for Berlin, M. Kwiatkowski for Warsaw.)

Figure A<sup>4</sup>

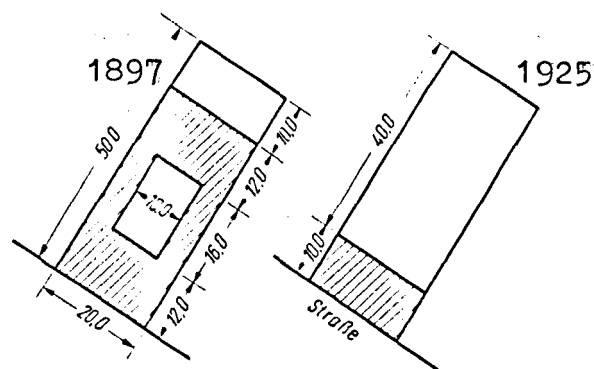


Abb. 12. Mögliche Wohnbebauung auf gleichem Grundstück nach den Bauordnungen von 1897 (links) und 1925 (rechts).

New building legislation introduced in Berlin from 1925 was intended to curb high density property development (compared with the characteristic configuration of frontal-, side- and back- buildings tolerated by the regulations previously in force, which themselves had been "reformed" by the authorities in 1897). Judging from an almost complete absence in Warsaw of properties constructed during the 1920s and 1930s along the lines of multi-building component tenement house plan, it would appear that new building legislation introduced to the city after 1919 adopted a similar format as the one in Weimar Berlin.



Justifiably derided as a product of *laissez-faire* capitalism and exploitive speculation by a small propertied elite, the tenement house in the wake of wartime destruction and post-war confiscations of private land in the inner city was to a large degree replaced by extensive town planning schemes realised from the late-1940s into the 1970s. In designated 'historic' quarters surviving tenements were either pulled down or, more often, readapted to fit into the "historic" surroundings of usually 18th. or early-19th. century merchants' houses (multi-storey frontages lowered to 2 floors, outbuildings demolished, groundfloors adapted where private shops had previously been located; now returning). In partially-surviving districts of a solidly 'capitalist' urban fabric, tenement cells or landscape units were to be gradually redeveloped or 'integrated' into the socialist city's profile, but beyond subdividing luxury or penthouse flats in wealthier homes and the widespread removing of 'eclectic' façadal decoration, as well as isolated demolition projects to accommodate new developments or widened thoroughfares, this latter category has been left to some extent untouched; often with fatal implications for the material and technical state of a given property or group of buildings.

A reassessment of the tenement house's potential uses in the modern city, and even the application of certain aspects of its building plan in relation to the new socio-economic forces arising in a post-'communist' country and restructuring a post-'communist' big city, is seen as being necessary to future planning. A return to the capitalist model of urban development would seem apparent in rising land values in the centre and numerous successful bids by ex-property owners or their offspring to reoccupy properties communalised by the authorities in 1945 (including real estate where wartime operations or post-war urban clearance removed the original properties). The

situation in this respect is potentially **disastrous** for future integrated planning and growth, since the pre-war landownership pattern, virtually monopolised by private people and speculators, may be gradually reasserting itself *ad hoc*.

Apart from the agents of urban landscape change, another major concern in the analysis of urban form is its cyclical nature, manifested over longer spaces of time. Describing Europe as "a continent of urban personalities", and seeing the "paradox of urbanisation" resting on the fact that no epoch or system has yet proved able to plan the city from start to finish, Braunfels concluded *Urban Design in Western Europe* with the sentence:

"As centuries pass, the totality unites into an image of the centuries - multiform, burdened and tested by history, a work of succeeding ages, a dwelling place that could, and still can, convey the forces that conveyed it".

The forces conveying Warsaw's urban plan and physical form on the whole came after the pre-Industrial Revolution era which most interested Braunfels; indeed he even dismissed the Polish capital as being unable to "develop freely into a capital", because of the country's "dependence upon foreign princes in the first half of the 18th. century and its unfortunate division". The trials and tribulations of history certainly weigh heavily on the modern Polish capital's urban morphology. Summing up 200 or so years of Warsaw's urban development, the brakes on *laissez-faire* socio-economic change could be interpreted as being strongly applied during just two periods of centralised government (1815-1860s and 1947-1980s), being partially

applied under inter-war administrations (1918-1939) while being totally lifted when central government was based elsewhere and little interested in domestic affairs beyond maintaining order and a certain degree of stability (1864/'8-1915); or when a new form of government is still in the making (c. 1990 onwards).

An additional factor shaping the urban development must be recognised in periods of socio-economic disruption resulting from wars, or patriotic insurrections and characterised by minimal or an actual halting of building activity with sharp declines in population: 1792 c. 115,000 - 1806 68,000; 1830 145,000 - 1831 114,000; 1905 771,400 - 1906 746,500; 1913 c. 1,090,000 - 1917 827,234 (Greater Warsaw); 1938 1,270,000 - 1945 162,000.

An urban landscape representative of each of these epochs arguably evolved to be disrupted by local rebellion or international conflict as well as by ensuing changes in the social, economic, political and cultural agents at work in the city:

1. a strongly-accentuated uniformity in (low) building heights and to a lesser degree urban plan during the early-1800s, with new streets and plots pointing the way to continued regulated growth;

2. the unfolding of a new landscape from the 1860s dictated by property speculation and increasingly uncontrolled tenement "barracks" housing resulting in a "tenement-barracks-city", surrounded by predominantly working-class quarters and *bidonvilles*;

3. the early-20th. century and interwar years when building activity spread into the suburbs where plenteous land made recently available (1909) attracted developers and substantial portions of the wealthier classes, while

the densely built-up and populous inner city is seen to have undergone only minor morphological changes;

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1943: Ghetto Uprising and demolition of whole inner districts;

1944: Warsaw (Polish Resistance) Uprising and further extensive damage primarily to the leftbank, Mid-Town urban fabric;

---

4. reconstruction within a planned economy undergoing its own minor *voltes-faces* (1956, 1970, 1980-'1), during which, in spite of minor overall functional alterations, the urban landscape was subjected to vast changes;

5. a transition phase in which private investment, as during the interwar years, makes significant inroads in the suburbs (outer as well as inner; i.e. Mokotów-Ursinów, Ochota, Wola,, Zoliborz-Bielany and Praga North-South); however, this phase has yet to make any significant impact on the Mid-Town landscape, apart from the aforementioned claims by former owners to property and land in the centre, as well as some hotel and other "big business" developments, usually by foreign companies. A stage would seem to have been reached where the profile is in a state of comparative inertia, but patterns of land use and ownership are already undergoing fundamental changes.

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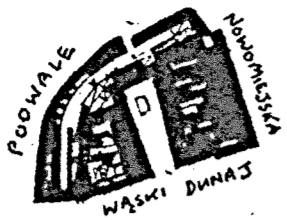
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**PLATE B:**

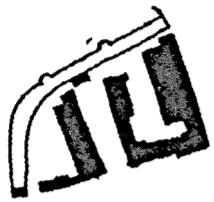
**URBAN PLAN AND BUILDING STRUCTURE IN SELECTED PARTS OF INNER WARSAW 13th.CENTURY - 1990s**

**1. MEDIAEVAL**



Street blocks grouped under no. 40

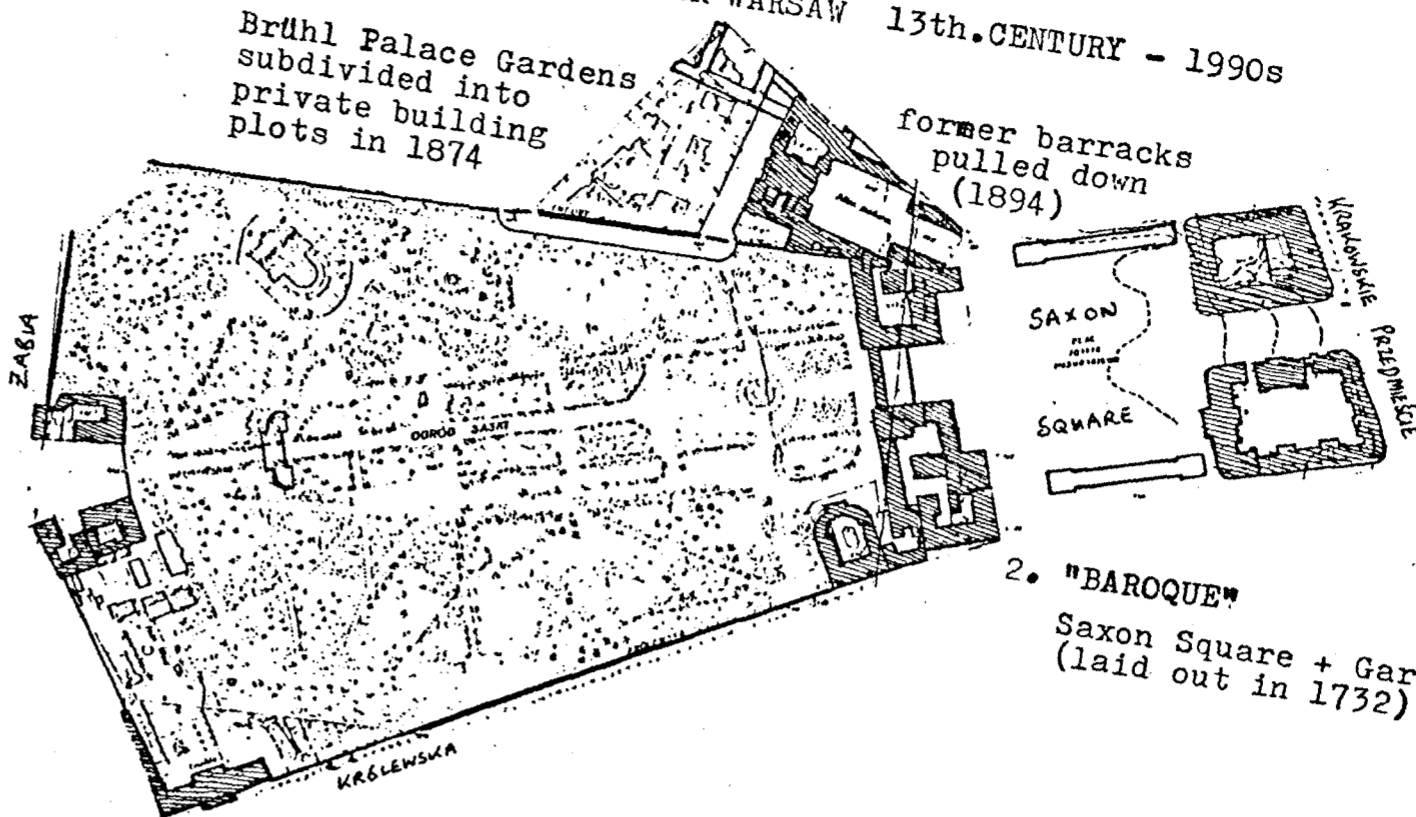
(a). pre-1944



(b). post-war reconstruction

Brühl Palace Gardens subdivided into private building plots in 1874

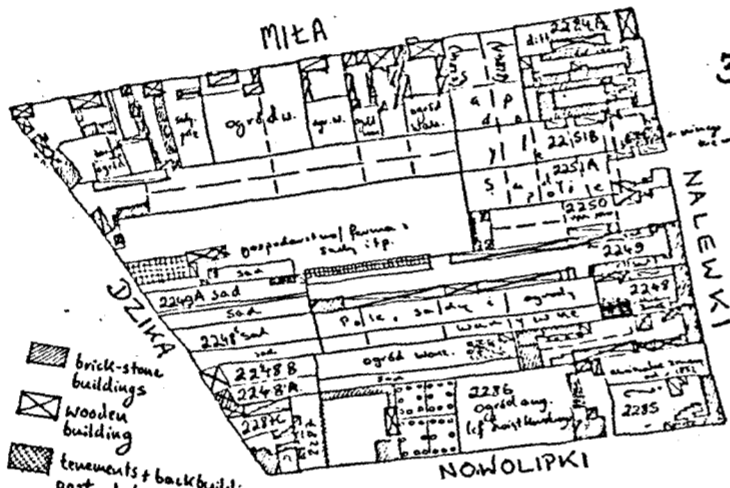
former barracks pulled down (1894)



**2. "BAROQUE"**

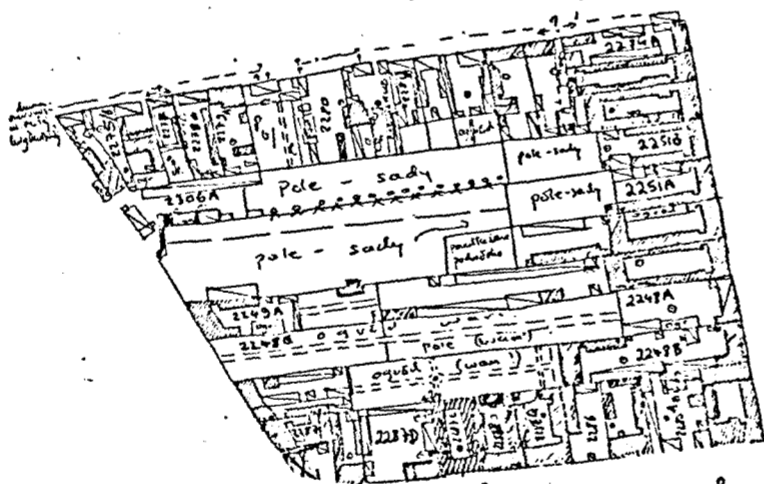
Saxon Square + Gardens (laid out in 1732)

A. 1859

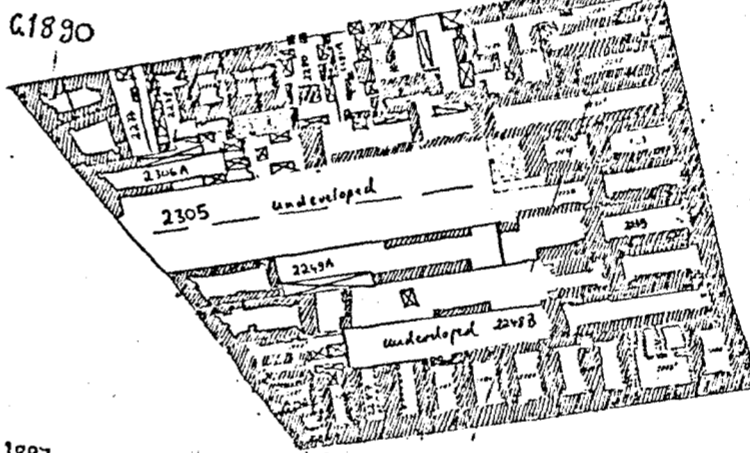


brick-stone buildings  
wooden building  
tenements & backbuildings post-dating 1837

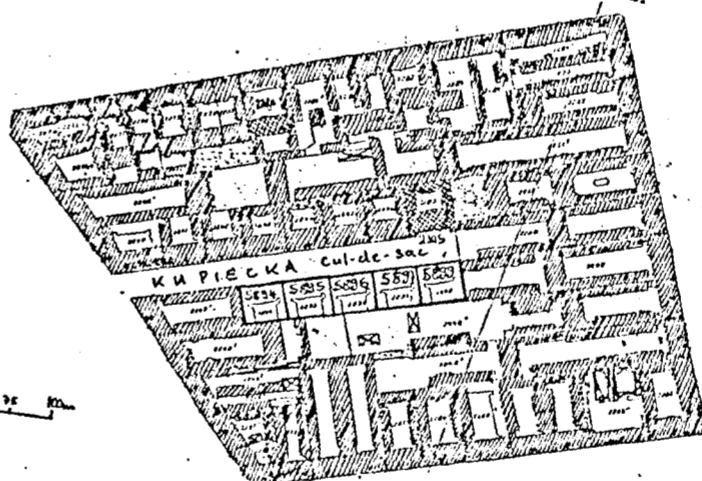
B. 1867



**3. Development of street block no. 91 in Nalewki "cyrkuł" 1859-1897**

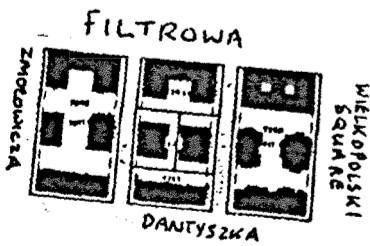


D. 1897



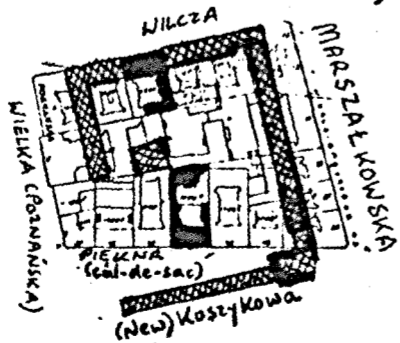
0 25 50 75 m  
1:5000

**4. 1920s**



Co-operative housing on the site of tsarist military land (Filtrowa St.)

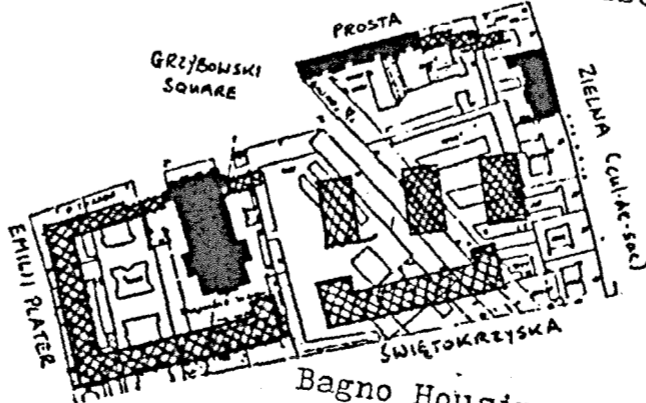
**5. 1950s (Soc. Realism)**



Street block no. 265: MDM housing dvlpmt. (street plan altered)

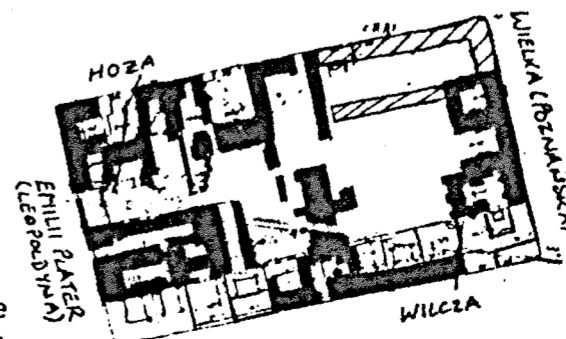
Street block numeration based on the 1919 property census (cf. plate IV<sup>a</sup> in Chapter 4)

**6. 1960s ("modernist" high-rise)**

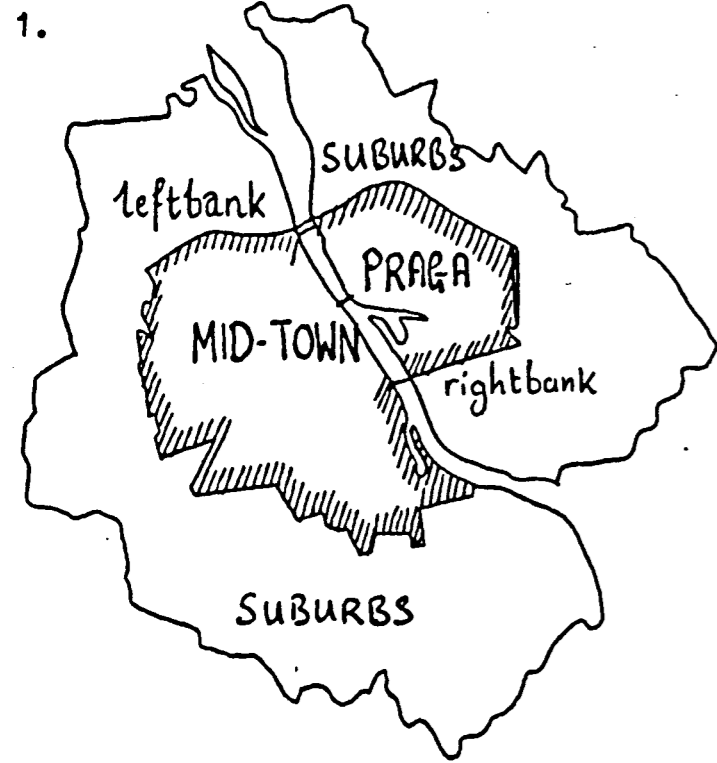


Bagno Housing Estate and Świętokrzyska St. extension (st. blocks 183 + 184)

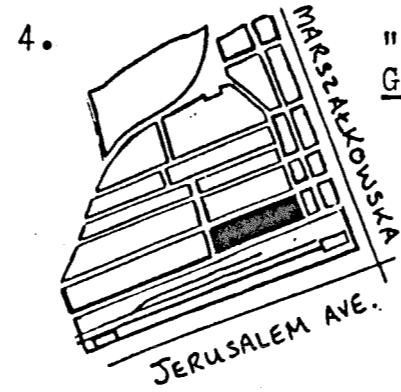
**7. late-1980s**



Rehabilitation of street block 267



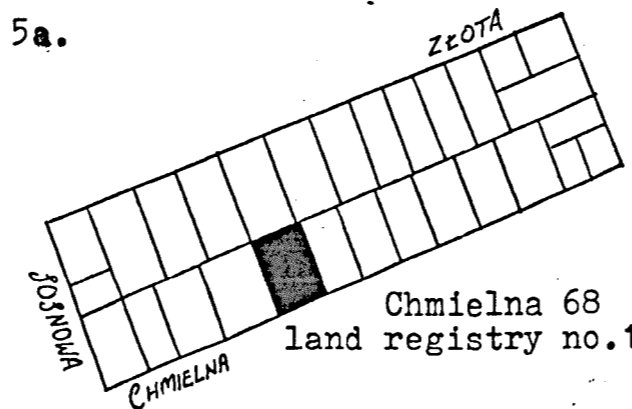
**PART I**  
 INNER CITY WITHIN THE METROPOLITAN AREA /GREATER WARSAW/  
 Scale 1:133,300



**"Cyrkuł" VIII Grzybów District**

**STREET BLOCK ANALYSIS**  
 sub-study areas divided into groups of properties "complying with the natural concentration of houses defined by intersecting streets"

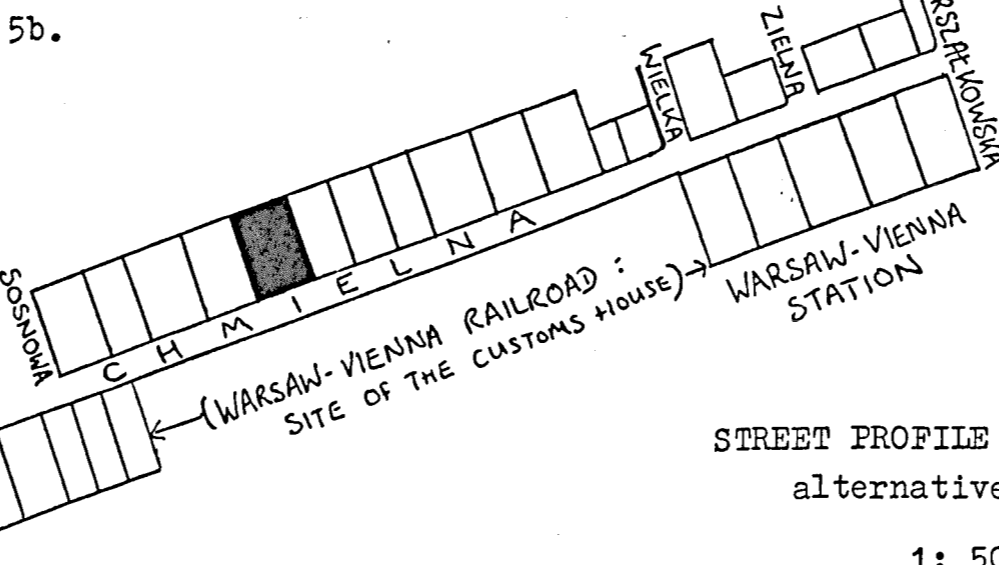
1: 30,000



**PLOT PARCELLISATION WITHIN THE STREET BLOCK**

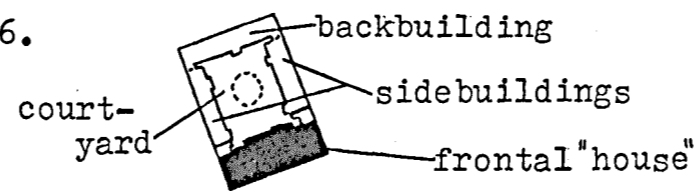
1: 5000

Chmielna 68 land registry no.1544



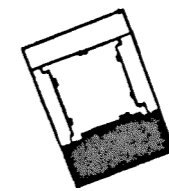
**STREET PROFILE INVESTIGATION alternative approach**

1: 5000 (part III)



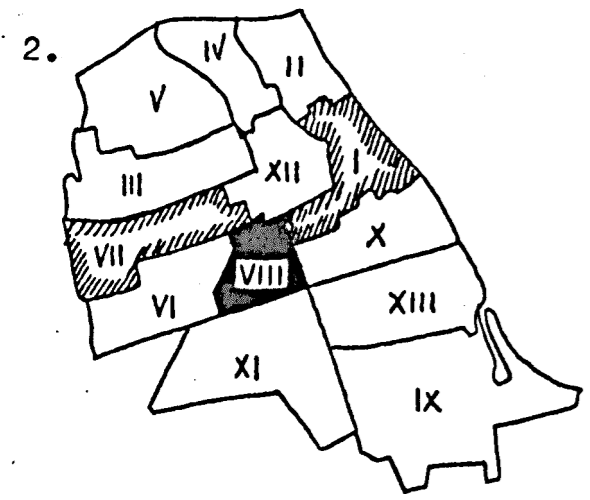
**DEVELOPED PROPERTY "CELL" AND ITS COMPONENTS**

1: 2500



**DEVELOPED PROPERTY "CELL" AND ITS COMPONENTS**

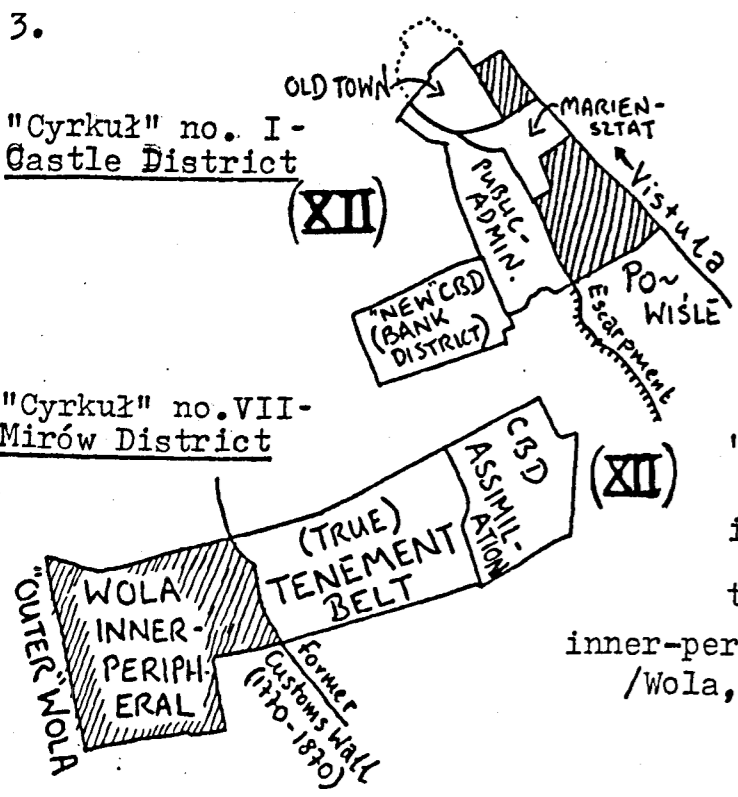
1: 2500



**MUNICIPAL DISTRICTS IN THE LEFTBANK MID-TOWN**

alternatively referred to as:  
 "cyrkuł" - until 1916  
 "okrąg" - after 1916  
 "arrondissement" - French translation  
 commissariat - police district

1:100,000



**SUB-STUDY-AREAS FROM MUNICIPAL DISTRICTS**

areas of comparatively consistent property development or land use patterns

verified by property "size" and housing densities in street blocks:

inner core = CBD-A, B, C, D, E + F

tenement belt districts 1-10

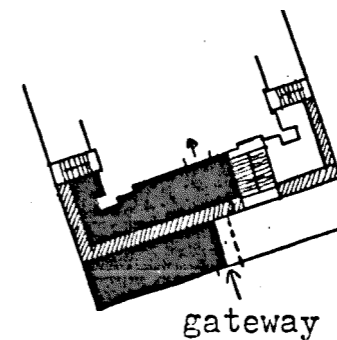
inner-peripheral districts identified /Wola, Powiśle or military land/

1:40,000

case study: CHMIELNA 68/1544

PART III

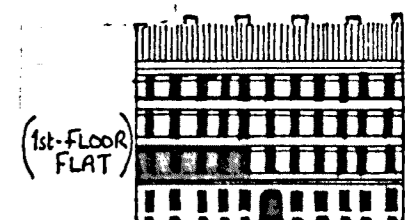
7a.



**BUILDINGS DIVIDED INTO FLATS**

Note: apartment divisions or subsequent subdivisions may occupy parts of 2 building components or more than 1 level

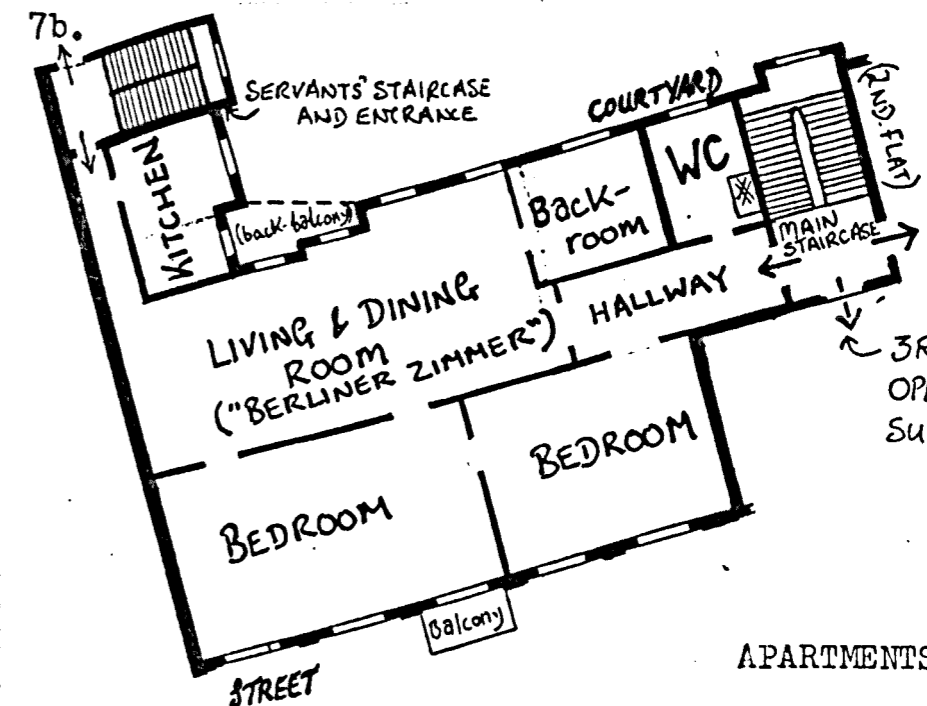
1: 1000



street elevation

1: 1000

7b.



**APARTMENTS DIVIDED INTO ROOMS**

1: 250

(hypothetical)

LITERATURE SURVEY

The list of published materials referred to in the Introduction emphasise the multidisciplinary nature of the research undertaken. Analysis of urban spatial structure may follow a variety of research paths. The internal structure of Warsaw is examined above all from the morphological point of view, but such a direction cannot exclude the functional-economic, topographical-physical and (social) ecological approaches in urban geography (refer to "Research Methodology"). Braunfels recognised ten "disciplines" in which urban studies are conducted, emphasising that boundaries cannot be drawn between them:

1. Documentation of materials; e.g photographs, iconography, city plans (urban archeology?);
2. the general history of cities;
3. legal and constitutional history;
4. economic history;
5. sociology;
6. political science;
7. geography and historical geography;
8. art history;
9. preservation of monuments ("in theory and practice");
10. the study of urban planning.

A. URBAN HISTORY

Reference has already been made to some of the general studies dealing with the city in history or the city in relation to society providing a general context for the research carried out:



1. L. Mumford. *The Culture of Cities* , New York 1938. Enlarged and reprinted as *The City in History* (London 1961), the author suggested a link might exist between "a concentration of urban power" in many parts of the world, reflected to some extent by a proliferation of the megalopolis, and "a last stage in the classic style of civilisation before its complete disruption and downfall". Although not geographical in the strictest terms, Mumford's work surely deserves to be acknowledged as a major contribution to urban studies, not least because in recognising the importance of "a consciousness of the historic evolution of cities" (to) "provide an insight, hitherto lacking, that will enable new measures of control to be introduced into (...) otherwise automatic, because unconscious, processes, the author anticipated the increasing emphasis to be placed on the historic approach to urban geography since the 1970s.

2. R.E. Dickenson. *The West European City. A geographical interpretation*, London 1951. Although his methods and interpretations may have come to be regarded as outdated by "modern" geographers, Dickinson's materials, which he had compiled mainly prior to the Second World War, have provided a valuable background to my own investigations. Dickinson placed some emphasis on the "Structure of the German City" (Chapter 6) as well as that of French city case studies, apart from his general studies of numerous "West" European cities, including Vienna, Prague, Budapest, Warsaw itself (pp. 211-'22 with map; a useful summary of the urban landscape and its development until 1939), Berlin and Paris. In "Part II" the author turned his attention to form and function of the urban habitat, including a chapter

devoted to urban morphology, changing urban form in history (going as far back as the origins of mediaeval towns) and even an examination of house types in North-West European cities, referring to the German K. Hager's study on Polish town houses. It is perhaps regrettable that Dickinson's analysis of European physical structure did not consider the cities of Italy and South (-Western) Europe.

3. H. J. Dyos (editor). *The Study of Urban History*, London 1968; especially the Introduction, in which the late Dyos, Professor of Urban History at Leicester University, referred to urban history as a "field of knowledge" rather than a single discipline.

In *Victorian Suburb: a study of the growth of Camberwell*, Leicester 1961, he dealt with the influence of the propertied classes in shaping the urban environment.

4. L. Benevolo. *The History of the City*, translated publication Cambridge USA 1980; a very comprehensive monograph seeking a world view of urban form development beyond the Euro-North American, innumerable city case studies presented from various civilisations possessing identifiable "urban cultures".

5. T. Hershberg. "The New Urban History" (in Chapter 1 of *Philadelphia. Work, Space, Family and Group Experience in the 19th. Century*, which he edited in 1981) defines the importance and relevance of the "field".

6. H. Carter. *An Introduction to Urban Historical Geography*, London 1983. Following on from Dyos, in the foreword Carter warns of the dangers of confusing the "discrete fields of enquiry" of urban geography, urban sociology and urban history within the broader subject of historical geography. He recognised such areas of research as having two main roots, harking back to a

long-established question on the study of space and time; i.e. historical and geographical approaches (urban history being more concerned with urban life and townspeople; urban geography being more involved with patterning and distribution). Spatial urban history and urban historical geography have been treated in this thesis as fields of inquiry which meet and cross over into each other.

7. W.Norton. *Historical Analysis in Geography*, Longman 1984; discussion of methods in historical geography and examination of literature in the "field" up to the time of writing.

#### B. URBAN MORPHOLOGY

1. J. W. R. Whitehand. *The Changing Face of Cities*. A study of development cycles and urban form, Oxford 1987; based in part on earlier articles.

The introduction, "Background to urban morphology" outlines the origins of the German school (O. Schlüter at the turn of the 19th. century who recognised "urban landscape" (*Stadtlandschaft*) as the main object of research in urban geography; H. Hassinger's study of architectural styles in Vienna; W. Geisler's work on Danzig, now Gdańsk, in 1918), followed by the British contribution ("Conzenian" and indigenous), as well as North American socio-economic settlement geography and cultural geography.

The cyclical aspect of changing urban form is considered. Commercial core, residential areas and urban fringe areas are identified and their urban fabric analysed.

Hassinger's *Kunsthistorischer Atlas von Wien* (1916) represented a type of research which came to be known as 'art geography', continued for example by G. Schaefer whose

most widely disseminated study incorporated that term into its title: *Kunstgeographische Siedlungsschaften und Städtebilder: Studien im Gebiet zwischen Strassburg-Bern-Dijon-Freiburg* (Basle, 1928). Hassinger's research in Vienna proved an important source for H. Bobek and E. Lichtenberger's *Wien: Bauliche Gestalt und Entwicklung seit der Mitte des 19. Jahrhunderts* (Graz 1966; cf. note no. 151 in reference to building typology in relation to the city's social structure).

Post-Second World War urban morphology in central Europe has its origins in the German morphogenetic tradition of the inter-war years, which itself might be seen to have its roots in a series of integrated studies of individual cities. As early as 1874 the first comprehensive study of building history and types for Berlin was compiled by some of the city's better-known architects and builders, entitled *Berlin und seine Bauten*. Over ensuing decades until the First World War similar studies were made of many larger cities in the Reich, including Hamburg, Cologne, Munich and Dresden, as well as where a German community was sufficiently numerous and prosperous to influence a city's development (e.g. *Riga und seine Bauten*, Riga 1908).

The German morphogenetic tradition has clearly influenced the study of urban history and form in the (former) Soviet Union, where it is known as "Town Planning Art", presumed to originate from the German word *Stadtbaukunst* (e.g. T.F. Savarenskaya, D.O. Shvielkovskiy, F.A. Petrov. *Istoria gradostroitel'nogo iskusstva*, Moscow 1989, following on from A.V. Bunin's more comprehensive 2-volume publication of the same title, divided between pre-revolutionary times and the ~~post~~ 1917 era; Moscow 1953).

The morphogenetic, and even morphographic, approach to researching city form and classifying building types remains very important in German-language urban geography and related subjects.

The German geographer M.R.G. Conzen, emigrating from the Nazi *Reich* in 1933, was responsible for introducing urban morphogenetics to Britain, although an indigenous tradition does exist which can be traced back to the research of H.J. Fleure on European cities in the 1920s, while H. Carter in more recent times has consistently emphasised the importance of historical geography within the subject. Conzen saw the importance of urban morphology as resting on its practical utility in providing orientation in both space and time, apart from the townscape's aesthetic value in its own right. Historic insight into the urban landscape will ensure decision making in town planning is more informed.

Conzen himself was a student at the Geographical Institute of Berlin University and much influenced by the work of H. Louis on the urban structure of that city.

2. A.E.J. Morris. *History of Urban Form*. Before the industrial revolutions, Longman 1979 (2nd. edition).

In the author's own words "written for students of urban history in the widest sense" and dealing with "the results of urban development processes" on a world scale over some 5000 years of urban activity. Chapter 7, entitled "A European Survey" is particularly relevant, providing summary histories and schematic or reproduced plans of Amsterdam, Nijmegen, Antwerp, Brussels, Vienna, Prague, Berlin, Budapest, Mannheim, Warsaw, St. Petersburg, Moscow, the impact of Russian rule on Tashkent, Kiev, Copenhagen, Oslo, Helsinki, Stockholm, Lisbon, Madrid and Barcelona.

Morris has been commended for achieving a "fully international" history of the development of city form, but these studies may well be regarded as being superficial. A second study dealing with 19th. and 20th. century urban physical structure is expected in the near future.

3. W. Braunfels. *Urban Design in Western Europe.*

*Regime and Architecture, 900-1900*, published in English in 1988.

The original publication of 1977 was entitled *Abendländische Stadtbaukunst: Herrschaftsform und Baugestalt*. In a largely continental European context, Braunfels places yet greater emphasis than Morris on political factors and their influences on "the architectural organisation of a number of successful cities" selected from the millenium study period. The term "architectural" should be understood here in its broadest sense; i.e. urban design. Although lying beyond the scope of geography and concerned with political forces which in many respects had already lost their primacy by the 19th. century (i.e. "Regime"), this study treats historic urban form as a legacy within the modern landscape; not only of provincial cities like Venice, Lübeck, Nuremberg or Nancy, but of major metropolitan agglomerations whose inner-central layout and a significant part of the building fabric have been inherited from the past and with which the modern city must coexist. Nowhere is this imposing of the past and the need to formulate an interpretation of historic processes in shaping the modern city made clearer than in the final chapter on Rome in which municipal government was thwarted for centuries by papal, and later national-state domination. The urban legacies of London and Paris as long-established state capitals are examined,

as well as those of Vienna and Prague. In the conclusion Braunfels is provocative:

"What is the boundary between necessary planning and the unplannable? The answer can be given only by history, not by theory."

C. STUDIES OF THE URBAN FABRIC IN SELECTED CITIES

1. J.H. Bater. *St. Petersburg. Industrialisation and Change 1870-1914*, London 1976.
2. H. Bobek and E. Lichtenberger. *Wien: Bauliche Gestalt und Entwicklung seit der Mitte des 19. Jahrhunderts*, Graz 1966.
3. M.F. Hamm (editor). *The City in late Imperial Russia*, Indiana University Press 1986.
4. J.F. Geist and K. Kürvers. *Das Berliner Mietshaus 1862-1945* (second of three volumes covering the period 1740-1862-1945-present day), Berlin 1984.
5. *Berlin und seine Bauten*, (1896 publication, Berlin).
6. *Budowle wykonane w dziesięcioleciu 1903-'13 przez firmę Michal Ulam, architekt budowniczy Lwów, Lwów 1913.*
7. G. Laszlo. *Pest Buda, téeszete az egyesitskov*, Budapest 1973.
8. F. Loyer. *Paris XIXe. siècle: l'immeuble et la rue*, Paris 1988.
9. Z. Ostrowska-Kębliwska. *Architektura i budownictwo w Poznaniu w latach 1790-1880*, Warsaw 1984.
10. S.E. Rasmussen. *London the Unique City*, London 1934.
11. A. Rynkowska. *Ulica Piotrkowska, Łódź 1963.*
12. E. Shivichenko. *Moscow, Architectural Monuments 1830-1916*, Moscow 1977, translated.

13. A. Sutcliffe. *The Autumn of Central Paris: the defeat, of town planning 1850-1970*, (London 1970).

These publications have been selected from a vast and ever augmenting bibliography of studies relating to the urban historical geography of individual cities. Each of the studies listed here has some direct relevance to an investigation of Warsaw's urban landscape. Reference to major European (Paris, London), and in particular Eastern-Central European cities (Berlin, Vienna, Budapest), has had to be made. The considerably enlarged second publication of "Berlin and its Buildings" from 1896 (following that under the same title from the 1870s) provides a useful model for classifying Warsaw's own building types: (a). public, state-administrative, military, railway-transport; (b). privately-owned hotels-restaurants, department stores, educational and cultural institutions, industrial; (c). private-residential villas or urban-palatial residences, town houses and rented barracks/tenements.

Of more local centres associated with the Polish world, the urban morphology of Łódź demands particular attention. Rynkowska's history of building forms on the main Piotrkowska Street, like S. Herbst's street profile analysis of Warsaw's Marszałkowska until the First World War, presents a revealing cross-section through the building fabric of a quintessentially late-19th. century city which, unlike Warsaw, has remained largely intact to the present day. Although not concerned directly with house types, J. Koter's more recent work should also be mentioned. Ostrowska-Kęblińska's examination of evolving building types of various functions is comparable with the systematic



research methods and extensive reference to contemporaneous documentary sources employed in the analysis of German urban form; and as such is exceptional among Polish urban monographs. Tenement house development in Poznań (Posen), to an even greater extent than in Łódź, may provide some clues to the adopting in Warsaw of the Berlin model of mass housing construction in the 1860s and 1870s. Breslau (Wrocław), on the other hand, would appear to have lain so firmly in the orbit of Berlin; possibly to some extent Vienna, it is unlikely housing types taking shape here would have made any impact beyond the Silesian provincial hinterland; hence no direct reference has been made to the valuable research carried out by E. Małachowski, based in part on the German-language archives surviving in this city.

A bizarre correlation has grown up in Poland between Wrocław and Lwów (L'vov, L'viv) on account of the post-war mass-deportations and shifting of Poland's western and eastern borders. As capital of an autonomous Galicia (1867-1914/'18) and the only large urban centre where a real "Polish" system of municipal government was able to operate (to the detriment, it could be argued, of the Ukrainian populace), Lwów, rather than Kraków which in 1914 was about half the size, may have taken shape in accordance with rational town planning policies which could not be effected in the "true" national capital at this time.

Grandiose public buildings associated with 19th. century civic planning may have been raised in Lwów rather than in Warsaw, but the latter's still considerably larger-scale development would need to be correlated with that of yet greater urban agglomerations. The preservation of Vienna's pre-1914 building fabric has provided urban historians with a rare opportunity to investigate the

building and social fabric of a 19th. century metropolis. For the purposes of this thesis, however, Berlin takes priority over the former Habsburg capital as a model of tenement house cityscape. Apart from Geist's and Kürver's "encyclopaedic" series of publications relating 350 years of city growth to the rise and decline of a single housing type (and so far as the most relevant, second volume is concerned focussing on a single tenement property; the *Meyershof*), a variety of analytical studies of building form in Berlin during the relevant time period have been drawn upon (these are listed in relevant references at the end of the main text as a supplement to the literature survey and in relation to the thesis).

The examination of cities in the Russian Empire is seen as placing Warsaw's urban growth in the correct socio-economic context, which has been too easily underestimated or misunderstood by 20th. century historians, tending as they have done to focus their attention on the political implications of the Polish capital's incorporation into the Empire. Apart from the chapter by S.D. Corrsin devoted to Warsaw ("Poles and Jews in a Conquered City"), based on his Ph.D. dissertation at the University of Michigan ("Political and Social Change in Warsaw from the January 1863 Insurrection to the First World War: Polish Politics and the 'Jewish Question'"), work by various authors has been compiled on Moscow (J. Bradley), St. Petersburg (J.H. Bater), Kiev (M.F. Hamm), Riga (A. Henriksson), Odessa (F.W. Skinner), Tbilisi (R.G. Suny), Baku (A. Altstadt-Mirhadi). D.R. Brower wrote about "Urban Revolution in the Late Russian Empire". His own monograph *The Russian City between Tradition and Modernity 1850-1900* was published in 1990 (California Press, Berkley).

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Drawing analogies between Warsaw and "Russian" cities would seem to be anathema to Polish research practices (while scholarly interest in 19th. and early-20th. century Russia tended to be obsessed with the negative comparison of Russian with West European cities). Inter-war Polish publications in particular were obsessed with the national capital's failure to compare favourably with the perceived desirable western paradigms of modern urbanity. J.H. Bater's findings for St. Petersburg bear a striking resemblance to land-use patterns and social-class divisions in *fin-de-siècle* Warsaw. The pre-holocaustal urban landscape of Poland's capital city might be interpreted as being no further removed from pre-revolutionary Moscow's as from that of Cologne or Brussels. Housing conditions and living standards for a majority of Warsaw inhabitants almost certainly correlated more closely with those experienced in Odessa or Riga rather than in Hamburg or Munich. Disproportions in living conditions arising especially between German and Russian imperial cities would be expected to have been especially great; for instance, as an indicator of overcrowded housing conditions, the proportion of citizens inhabiting single rooms in Berlin before World War I (3.4%) was among the lowest in Europe; compared to 6.4% in London, as high as 16.3% in Paris, excluding the *banlieu*, but well in excess of 50% in Moscow. With 28.7% of the (inner) urban population housed in 1-room apartments Warsaw presented a somewhat unhappy medium between comparatively better German and disastrously inferior Russian housing conditions.

A comparative aspect of this thesis would endeavour to place 19th. century Warsaw's urban pattern in a regional context, recognising the importance of seeking models of

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urban growth and form, together with broad social and economic processes common to cities in history. Models of "tenement city" development have been sought in studies of the urban profiles of Berlin and Vienna, although in the specific case of Warsaw comparisons might be drawn with urban form and tenement house evolution in such principal cities of the Russian Empire as Odessa, Kiev, Riga, Vilna (Vilnius, Wilno) and Minsk, apart from Moscow and St. Petersburg.

Warsaw had already become by the late-18th. century "an island of urban liberty in a state of *corvée* labour". Although social reform may have emancipated the peasant from the land, a divide between city and countryside was to remain an essential characteristic of Russian imperial society into the 20th. century, arguably being intensified by industrial revolution and dynamic urban expansion after the 1860s. Such a divide was further reinforced by a specific and usually complex ethnic structure. Warsaw's Jewish community (more accurately communities ?) was almost as numerous as the Polish, while the province of Mazovia was populated predominantly by Polish peasants. Russian administrators and soldiers, as well as small colonies of Germans, Armenians and other nationalities, were also concentrated in the city. Odessa, on the other hand, was an overwhelmingly Russo-Jewish city, with Armenian, Greek, German, Polish and even Italian and French national minorities, surrounded by an overwhelmingly Ukrainian countryside. In Kiev the Ukrainian urban community was considerably more important, but it was still numerically inferior to the Russian, Polish and, notably, Jewish populations, even though this city in theory lay beyond the "Pale of Settlement" open to Jewish immigration. Until the

Second World War Vilna was primarily a Jewish-Polish city in an ethnically Byelorussian-Lithuanian part of the Empire (just as Lwów/Lemberik in the Austro-Hungarian Empire was, above all else, Polish-Jewish in a Ukrainian countryside). However, in Riga the traditionally dominant German and Russian communities were already outnumbered by the Latvian population before 1914, although the former two groups, apart from the smaller Jewish populace, owned a larger share of the land, housing and factories. Similarly, the Poles constituted the largest single ethnic group in Łódź, but the Germans and Jews owned most of the housing and industrial property. Out of the ten largest cities of the Russian Empire only in St. Petersburg and Moscow did Russian ethnic populations constitute an absolute majority.

It may be argued that Warsaw's pre-holocaustal ethnic make-up, together with its (inner) urban physical structure, had arisen during the period of Russian rule and that certain analogies might be expected in the ethnic composition and geomorphology of other major cities developing in so-called European Russia prior to the October Revolution. This comparative aspect, while considered fundamental to placing the urban case study in a wider urban context, has had to be cut short in view of limited time and space.

Russian, Ukrainian, Latvian or Lithuanian language sources include:

*Odessa 1794-1894. Izdanie gorodskogo obshchestvenogo upravleniya*, Odessa 1895 (celebrating the 100th. anniversary of this city's founding; a kind of 'Odessa and its Buildings').

K. Cherbulenas, J. Glenzha (editors). *Vilniaus Architektura*, Vilnius 1985.

V.E. Yachevitch. *Arhitektura Ukrainy na rubezhe XIX-XX vekov*, Kiyev 1988.

Y.A. Krastnish. *Ekletisma. Stila celtnes Riga* (and) *Stil modern u arhitekture Rigi*, Riga 1988.

A.L. Punin. *Arhitektura Peterburgu seredini XIX veka*, Leningrad 1990.

Refer also to the monthly periodical *Arhitektura Ukrainy* published since 1991 by the "Institute of Town Planning Art" of the Ukrainian Academy of Science in Kiev.

#### D. WARSAW

1. E. Szwankowski. *Warszawa: rozwój architektoniczny i urbanistyczny*, Warsaw 1952.
2. J. Cegielski. *Stosunki mieszkaniowe w Warszawie w latach 1864-1964*. Warsaw 1968.
3. I. Pietrzak-Pawłowska (redaktor). *Wielkomiejski rozwój Warszawy do roku 1918*, Warsaw 1973
4. S. Kieniewicz. *Warszawa w latach 1795-1914*, Warsaw 1975.
5. S. Herbst. *Ulica Marszałkowska*, Warsaw 1949
6. A. Gieysztor, S. Herbst, E. Szwankowski. "Kształty Warszawy" (in) *Biuletyn Historii Sztuki* R.1947 (Warsaw)
7. D. Sosnowski. "Powstanie, układ i cechy sieci ulicznej na obszarze Wielkiej Warszawy" (in) *Studia do dziejów sztuki w Polsce*, t.II - 1930 (Warsaw)
8. E. Szwankowski. *Ulice i place Warszawy*, Warsaw 1970
9. S. Dziewulski and H.Radziszewski. *Warszawa* (two volumes), Warsaw 1915.
10. A. Szczypiorski. *Gwiera wieku Warszawy 1806-1830*, Wrocław 1962.

11. A. Szczypiorski. *Warszawa, jej gospodarstwo i ludność w latach 1832-1882*, Wrocław 1964.
12. J. Roguska. (A) "Wpływ przepisów na kształtowanie zabudowy Warszawy w drugiej połowie XIX i na początku XX wieku" (summary English translation: "The influence of building regulations on the shaping of Warsaw's building development in the second half of the 19th. and the beginning of the 20th. centuries");  
(B) "Warszawskie echa nowych koncepcji w planowaniu zabudowy czynszowej na początku XX wieku";  
(C) "Architektura i budownictwo mieszkaniowe w Warszawie w drugiej połowie XIX i na początku XX wieku" (English transl.: "Housing architecture and building in Warsaw in the second half of the 19th. and the early 20th. century").

Articles published in: *Kwartalnik Architektury i Urbanistyki* T.XXV Z.3-4 (1980), T.XXXI Z.2 (1986) - nos.1 and 3 respectively.

*Studia do Teorii i Historii architektury i Urbanistyki*, T.XVI (1982) - no.2.

Published materials only of immediate relevance to the thesis topic are listed here; reference to works of secondary value to the urban analysis or drawn upon in the illustrating of specific aspects of this city case study is made in "Notes".

No definitive study of the Warsaw tenement house has as yet been brought out. M. Kwiatkowski's *Architektura Mieszkaniowa Warszawy* ("The Domestic Architecture of Warsaw", 1989), taking little account of socio-economic factors or developing urban morphology, deals only with the

period 1656 - 1831, but in itself is a pioneering study shedding some light on the city's pre- and early-industrial landscape (cf. footnote 305 in "Notes"). Research carried out by J. Roguska of the Architectural Department of Warsaw Politechnic seeks to place remnant tenement housing types in the context of Warsaw's "building development" (*kształtowanie zabudowy*) over the same time period as that covered by this thesis.

Reference to the Warsaw tenement is made in the context of the city's 19th. century history in each of the above works. E. Szwankowski's "Warsaw, a town planning and architectural history" recognises the fundamental role of tenement building in shaping the so-called inner city, although his monograph; a synthesis of Warsaw's urban history unsurpassed by later publications, might be criticised for underemphasising the importance of the 1864-1914 period.

J. Cegielski's "Housing conditions in Warsaw between 1864 and 1964", with its first section dealing with the 1864-1914/'19 era, refers quite extensively to statistical data coming from the study period and analytical conclusions relating to social conditions in the evolving "big" city. It is thanks to Cegielski that my attention was initially drawn to the 1882, 1916, 1919 property surveys and the tsarist-appointed investigation into health standards and housing conditions in the city (1891).

"Warsaw's big-city development" (i.e. *Großstadt-entwicklung*) "until 1918", edited by I. Pietrzak-Pawłowska is the definitive historical geographic study, dealing with the major economic (W. Pruss), social (M. Nietyksza), spatial (Pruss-Nietyksza), infrastructural (J. Gajewski, J. Braun) and city-region (R. Chomać-Klimek) aspects of



late-19th./early-20th. century Warsaw. Case studies of inner urban regions were also presented by W. Pruss (Western District), B. Raczkowski (Muranów) and J. Berger (Praga).

S. Kieniewicz's study offers a purely historical interpretation, placing the city's physical growth more in a broad socio-economic and, above all, political context.

The specific relevance of S. Herbst's monograph of pre-war Warsaw's main street and the shaping of its building profile will be considered in "Research Methodology".

Studies of the physical aspects of Warsaw's pre-holocaustal internal structure were carried out by the architect O. Sosnowski (street plan) and art historians A. Gieysztor (mediaeval), E. Szwankowski (16th.- 18th. centuries) and the historian S. Herbst (19th. century).

A. Szczypiorski's synthetic analysis of the city's social, economic and urban geographies in the early-1800s and "inter-insurrectionary" years (1832-'63), was based on official Polish documents compiled during the home rule era (1806-'13 Napoleonic; 1813/15-'64/'8 Romanov). The author also had published his statistical research for the inter-war years (Wrocław 1968), but apparently gave up on, or avoided altogether the 1864/'8-1915 era (presumably for lack of consistent and reliable government-municipal data sources).

## RESEARCH METHODOLOGY

The research adopts a morphological approach as an examination of the internal structure of pre-holocaustal inner Warsaw. Land use and segregation of population are dealt with as areas of secondary, but obviously related, interest. The city's origin as a settlement form, city-region relations and inner city relations lie beyond the scope of this thesis. The urbanisation process and its measurement is confined mainly to the period under investigation, except where reference to late-20th. century developments has been considered necessary to provide a contemporary perspective (especially where fragments or enclaves of the cityscape originating from the study period have remained). Also, bearing in mind urban growth and internal change may lead to the modification as well as removal of pre-existing elements in the urban landscape, apart from the generation of new ones, aspects of pre- or early- industrial age development, especially from the 18th. and early-19th. centuries (viewed in a context of continuity and organic growth) would need to be taken into account.

No single model of urbanisation has been used in this thesis. The tenement house is taken to be the building form created in response and corresponding to the socio-economic forces active in Warsaw's large-scale urban development. A degree of consistency has been discerned from photographs and detailed city plans in tenement

groundplan, incorporating frontal house blocks (forming in places consistent street profiles), back ranges and transverse ranges creating inner, closed courtyards. Homogeneity has been observed in the block plans of inner city street blocks, but usually in those areas only where building development may be assumed to have taken place exclusively during the study period. In those districts of the city where tenement house construction was carried out within this period, creating a hypothetical belt of comparatively consistent tenement housing (at least in the leftbank Mid-Town), a systematical approach in the investigating of an apparently chaotic process of urbanisation is considered.

Carrying out his own examination of changing urban patterns over time, observed in building forms on Marszałkowska Street, the main thoroughfare of 19th. century Warsaw, the historian S. Herbst introduced his research technique as follows:

"(...) historic analysis of a great and complicated city (...) lies beyond the powers of a solitary researcher. Wishing, however, to contribute something to the field while not oversimplifying the complex issues involved, it is expedient to limit the topic to manageable proportions, although not to the extent where perspectives are narrowed too greatly (something that would occur in the study, for example, of a single" (case study) "property). Two alternatives present themselves: historic analysis of a territorial fragment - i.e. a district; or a cross-section through a significant part of the built-up area - the street."

(S. Herbst. *Ulica Marszałkowska* (Warsaw 1949), p.4)

Herbst carried out his research in the 1930s and war years, referring extensively to documentary sources later lost in the Warsaw Uprising, as well as empirical investigations of Marszałkowska's building fabric and its social structure prior to wartime obliteration. In the present thesis data collected for street blocks comprising landscape units within the built-up area has been referred to extensively (Chapters 4 and 5-7). Street profile analysis is also considered of relevance to the investigation, although in view of the poor, or it should be emphasised disorganised, state of archival as well as photographic documentation, studies would have to be limited to streets preserving a substantial part of their pre-1914/1939

The following constituent parts of the urban area are identified:

1. an evolving commercial core, probably with distinctive Christian (Polish), acculturated Jewish and traditional Jewish quarters;
2. a tenement belt of mainly, but far from exclusively, residential districts, perceived as a fully-evolved urban physical form in relation to the prevailing social, economic and political structures of the period (again, ethnic factors are expected to be significant, with "Orthodox" Jewish communities remaining segregated from Polish-Christian or polonising Jewish social groups);
3. an intermediate, or inner-peripheral area, representing a hypothetical zone in transition between the high density tenement property belt and low density urban "outback" of the suburbs (identification of fringe belt complicated by military land);

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4. the outer city, or suburbs, where urban development, at least until the turn of the 19th. century - and in most "Polish" interpretations until after 1918 - had been seriously retarded by building restrictions within a 2 or 3 kilometre belt inside the girdle of tsarist fortifications encompassing the leftbank city, as well as 7 individual forts raised in the immediate vicinity of the rightbank outer districts (Grochów, Targówek, Utrata, Nowe Bródno, Pelcowizna).

#### STAGE I: THE EMERGENT URBAN PROFILE (1914)

A theoretical schema of concentric rings interrupted by natural topography (river and escarpment) and tsarist military terrain (Citadel, a southern Green Belt and the Mokotów Fields) needs to be correlated with building statistics and demographic data relating to the built-up area and population distribution at the end of the study period (functional zones model in Part I to be reinterpreted following detailed urban analysis based on street block territorial units in Part II).

The Second World War witnessed the clearing of entire, mainly Jewish, districts in the north-western Mid-Town (*Sródmiście*) and partial clearance of the western inner urban quarters, while permitting extensive post-war redevelopment of the CBD and historic centre. A major part of the urban fabric being examined was thus removed in the space of a few years and data must be drawn primarily from documentary sources.

The Russian administration apparently kept an inadequate record of building activities in the city (1868-1915), while interwar municipal administrations failed to take stock of the metropolitan area's 10,000 or so (in 1919) developed properties. The burning or loss of a greater part of the city archives in 1944 (A. Ciborowski) confounds the kind of integrated research carried out in Berlin (J. F. Geist, K. Kürvers, H. W. Hämer, F. Monke) or Vienna (H. Bobek, E. Lichtenberger). The compiling of a comprehensive inventory of Warsaw's pre-war private houses, bearing in mind 96.87% of all real estate divisions in Greater Warsaw were in private hands, would seem an impossibility. Photographic documentation is very fragmentary, being fullest in more representative areas such as the city centre and the Mid-Town southern quarters, substantial enclaves of which have survived to our own times. Insufficient documentary evidence may be at least partially solved by referring to directories which list state or municipal, together with more important private-commercial and private-cultural, institutions, directories of factories and other private businesses released during the study period, but especially from registers compiled by the City Tax Office, listing developed properties within the administrative area of the City of Warsaw (1791-1916) or the metropolitan area (1916-1930; cf. "Primary Sources").

The first comprehensive list of "historically valuable" buildings was drawn up by the City Council in the 1930s, including a substantial number of mainly late-18th. or early-19th. century merchants' houses (usually undergoing "tenementisation" during the study period and identified as "medium-sized" housing in the thesis). No

list, as might be expected, exists of the city's tenement houses, meaning present-day conservationists (official), or specialists and devotees (e.g. "The Society of Warsaw Enthusiasts" - amator) are unable to establish the year of construction or the architect/building firm for a considerable number of private houses originating from the 1864-1914 era.

A general statistical appraisal of the inner city's building stock, building densities and population distribution provides the foundation of this thesis, and a departure point for examining constituent building forms in the urban landscape. Data has been taken from the "Results of the Property and Apartments Census of (...) Warsaw in 1919"). Conducted in the wake of World War One, during which building activity had been reduced to a minimum, the census supplies detailed statistical information for an overall appraisal of both inner and previously unincorporated (until 1916) outer city. This is the first survey of Warsaw properties to achieve an effective comprehensiveness for such an appraisal (compared to its forerunners conducted in 1882 and 1891). The following aspects of the census findings have been introduced to the urban analysis:

1. the classification of building plots in "Greater" Warsaw into real estate, developed/built-up and inhabited property;

2. a broad categorisation of developed property types into "small", "medium" and "barracks" housing;

3. population distribution, based on numbers of inhabitants registered as living in the 15 inner urban (pre-1916 City of Warsaw) and 11 suburban commissariats in the 1919 property census. The inclusion of supplementary

demographic data from before the Great War (i.e. for 1913) is regarded as necessary in ensuring a realistic picture of distribution prior to a perceived wartime exodus of around 1/5 (i.e. c. 200,000 inhabitants) of the urban population between 1914 and 1917);

4. the culmination of this initial stage in the analysis involves introducing statistical data on rooms in apartments (taken from the "Apartments Volume" of the 1919 census) to establish housing density patterns in relation to property or apartments rather than considering population densities in relation to spatial area (insufficient data). The analysis is intended to be advanced from tracing similarities or variations in the data collected between municipal districts or Mid-Town - Praga - Suburb urban regions to analysis at street block scale. The street block is recognised as a basic unit for statistical interpretation in testing both hypotheses of functional zones existing within the urban structure (inner core - tenement belt - inner periphery - suburb) and in the identification of predominant tenement building types within street blocks or groups of street blocks. The consistency of property development over large parts of the "tenement belt", observed in the base plan (ground-plans) or aerial photographs (building heights), should permit the identification of townscape units. These units would be composed of street block groupings of comparable property sizes (measured by the mean number of apartments in developed properties) and housing densities (i.e. mean numbers of residents in rooms of inhabited/habitable properties grouped in the street block statistical unit).



STAGE II: THE CITY OF TENEMENT HOUSES

The "tenement-barracks-city" urban form hypothesis is tested by means of (a) street block analysis in sub-study areas, and (b) an assessment of urban growth and internal changes up to 1914, based, apart from cartographic and photographic evidence, on secondary, published sources (cf. "Literature Survey" and relevant entries in "Notes" to chapters 5 and 6). The sub-study areas are intended to correlate with comparatively consistent patterns of property development, apartment subdivisions and housing densisites established by making the following calculations for street block statistical units (according to data from 1919):

1. mean property sizes and types (the number of developed properties grouped in a given street block divided into the total number of residential, mixed-residential and uninhabited apartments, as well as flats recorded in 1919 as "vacant");

2. mean numbers of tenants in properties (total number of residents in the street block divided by the number of developed or - where identified from the base plan - inhabited properties);

3. mean calculations of rooms in apartments (i.e. total number of rooms divided into the number of inhabited or potentially habitable apartments; note in supplementary statistical data contained in the second volume of the 1919 census, on the basis of which the street block statistical analysis has been possible, no account was made of uninhabited commercial, industrial or public "rooms").

4. the mean number of people per room as an expression of housing densities (registered residents

divided by the number of residential and mixed-residential rooms).

Hypothetical property types generated for inner city quarters or townscape units need to be placed in the context of historically evolving central/CBD, tenement or fringe districts until 1914; tracing the process in certain cases as far back as the middle ages. The suburbs, seen as representing areas of expanding, delayed or arrested property speculation and development, cannot be examined in such detail as the inner city; in the absence of statistical information at street block scale, the analysis in these regions is limited to interpreting building, apartment and demographic statistics in relation to the post-1916 *arrondissements* (*okręgi*).

The investigation is intended at this stage to be moving away from an abstract statistical interpretation to comparing the forms generated by the research method with real or observed forms. Reference must be made to secondary sources (e.g. E. Szwankowski, S. Herbst, I. Pietrzak-Pawłowska, W. Pruss, M. Nietyksza, results of post-1945 research carried out by group bodies), as well as journalists' articles from the study period and social criticisms (the Przyborowski and Korotyński collections, F. Lewicki, A. Sobański, etc.). The model of functional zones and predominant property-building forms arising within them established in Part I is to be tested and, where necessary, revised, with particular reference to the Mid-Town, city centre/tenement belt study area, as a finale and summary of the data collected and analysed in Part II.

STAGE III: THE TENEMENT HOUSE IN THE URBAN LANDSCAPE

The research method applied in spatial form evolution is to be carried through to a desired culmination: analysis of the tenement barracks house as the perceived dominant building type and element in the urban landscape of (inner) Warsaw as it took shape up to World War One.

To recapitulate:

in Part I real estate and a conceived primary property type evolving from the mid-19th. century is viewed in relation to hypothetical functional zones of the inner urban core, tenement belt, urban fringe and underdeveloped suburban area;

in Part II the generated main property-building form, expressed in terms of numbers of apartments, subdivisions into rooms and housing densities, is placed in the context of sub-study areas within the inner city (street block analysis) and selected suburban areas (municipal district as statistical unit).

Apart from secondary sources, greater reference to cartographic materials is involved in tracing the development of such districts and the evolution of building forms.

The investigation is carried through at this stage to the scale of developed properties as cells within the urban structure. Reference is again made to the results of the 1919 census in order to determine the characteristics of:

1. building layout, introducing the "building" (*budynek*), referred to in earlier sources as "house" (*dom*) and "outbuilding" (*oficyna*) as constructional components in developed properties. In the constructional configuration of tenement houses raised during the study period these

building components formed an integrated entity of interconnecting frontal- side- and back-buildings surrounding a usually closed courtyard or courtyards;

2. such building components within the property cell were frequently of differing height and were put up at different times. It was not, therefore, always possible to establish a single construction date for tenement houses, subjected as they often were to extensions and backbuilding at later periods, as well as subsequent apartment subdivisions;

3a. building heights, permitting research to be advanced to a third dimension. Heights are expected to relate to certain generally-defined phases in tenement house development within the study period: 2 floors until the 1860s; 3 or at most 4 floors in the 1870s/1880s,; 4 and 5 floors in the 1890s, increasing thereafter, especially from 1905 when building regulations formerly in force, theoretically not permitting a building's height to exceed street width, were repealed by St. Petersburg (J. Roguska);

3b. by introducing the third dimension to urban landscape investigation, social stratification within the tenement house should become broadly determinable by relating apartment sizes to floor location. Social-class structure is expected to have been dictated by vertical as well as horizontal factors; i.e. wealthier residents occupied first-, second- or groundfloor apartments, less wealthy or the dependents of affluent families rented upper-storey flats, while attics and basements were rented out to lower or lowest income people (the Kohl model). Vertical factors were equally important both in shaping social-class structures within the tenement, with poorer residents occupying apartments in backbuildings and, where

they took shape, back-courtyards, as well as in the city in general. Until the urban social elite began to move out to the suburbs, Warsaw is expected to fit in with the generally observed 19th. century model of social-class spatial distribution; i.e. decreasing wealth and social status with increasing distance from the centre (Bater for St. Petersburg, Olson for Vienna, A. Sutcliffe and numerous others in Paris);

4. the dividing of properties into apartments (anywhere between 1 to in excess of 10 rooms), making allowance for subsequent subdivisions, as well as subtenanting or sharing of rooms; e.g. the mainly Russian phenomenon of *ugol*, or renting corners of rooms;

5. technical innovation and general improvements in domestic comfort and sanitation during the period under study, improving standards in housing construction even while the city and especially the Mid-Town became ever more densely built-up and populated; i.e. the new municipal water-supply and sewers networks, installing of gas, electricity, lifts and even, in rare cases, central heating;

6. property ownership: a social elite in itself? How many owners possessed 2, 3, 4 or more properties? Was property ownership towards the end of the study period entirely motivated by speculative interests?

The process of urban development - based on municipal records until 1868 and, thereafter, by comparing the results of a one-day census in 1882, a state-sponsored survey of health conditions in private Warsaw properties (1891), as well as the 1919 census - is viewed in the context of tenement house evolution and spread until c. 1914. Prototype rented-barracks houses appeared from the mid-19th. century (1857 the first identifiable example of a 4 building

component tenement property, but only of 2 upper storeys - S. Herbst), subsequently advancing into open or comparatively open, undeveloped areas within the pre-1870 leftbank customs wall to become the increasingly prevalent building form of central-inner Warsaw (including Praga). A generally defined increase in building heights from the 1860s is echoed by intensified plot parcellisation or subparcellisation, together with increasingly intensively built-up plots and street blocks.

Tenement house typology, where it can be applied, is to be based on chronological and locational factors rather than architecture, while ground-plan must obviously be taken into account together with varying building plot dimensions. Although the primary function of tenement housing is inevitably determined as being residential, consideration must be made of additional activities carried out. Commercial-office functions mixed with residential would be expected in many city centre properties, predominantly or exclusively residential in larger parts of the tenement belt and small-scale factory, manufacturing or handicraft production in more industrialised areas; including certain street blocks or individual properties, where they have been identified, within predominantly residential quarters. Tenement building form is perceived from the base plan to break down in inner-peripheral districts (Praga, Wola and Powiśle) where the locating of larger factory premises was more concentrated and the urban proletariat had taken up residence.

Case studies (empirical research) test generated models of building forms in the inner city, although counterfactual forms may also appear. These case studies (are provided by)

are provided by empirically compiled data pertaining to elements of late-19th. or early-20th. century development remaining in the modern city landscape:

-an extensive region south of Jerusalem Avenue in former Alexander ("Aleksandryjska"), Pomological-Koszyki and Ujazdów municipal districts;

-tenement ensembles or cells behind the Palace of Culture and Science and North-South thoroughfare, known today as the "Wild West" (*Dziki Zachód*), representing fragments of the former Western districts of Grzybów, Towarowa and Mirów;

-substantial remnants of the "new" commercial centre/CBD taking shape during the study period, however, partially redeveloped since the late-1940s, covering the former Nowy Świat commissariat, but only parts of the Castle and North-Central districts where wartime destruction and ensuing post-war remodelling were far more extensive;

-an example of street profile evolution (Chmielna Street), as an alternative and possibly optimal method of researching urban morphological development; as opposed to analysis by street block units (following S. Herbst's approach in his study on the pre-1939, and overwhelmingly pre-1914 Marszałkowska Street profile).

Less attention has been devoted to building forms in inner-peripheral districts. In Wola and Powiśle tenement house development was very incomplete (cartographic and photographic evidence), and thus interpreted as having been delayed or arrested during the 1864-1914 era. In Praga, Warsaw's inner-rightbank district, the urbanisation process is perceived as occurring semi-independently from that of the "main" city, thereby generating distinctive building

types, as well as a distinctive social-class structure. Empirical research would, nevertheless, be regarded as highly desirable in view of the largely uninterrupted continuity in urban form and social structure into our own times and the clear necessity to protect Praga's urban environment from complete degeneration.

Limited attention should be focussed on Mokotów and, to a lesser degree, Ochota as suburban districts coming increasingly under the influence of (chiefly) residential property speculation and the advance of tenement house construction from at least the early-1900s (compared to industrial location in Wola).

In conclusion, the tenement house as a building form in the large-scale urban development of Warsaw, during a period when it is perceived to have become the dominant element of the resultant (inner) cityscape, is to be investigated in relation to spatial areas and units at varying scales:

-initially, real estate and developed property divisions are to be examined within the Greater Warsaw area and a territorial breakdown into inner urban (pre-1916 City of Warsaw: commissariats I-XV) and outer city (commissariats XVI-XXVI);

-developed property "housing" types are first introduced according to numbers of built-up properties and their apartment subdivisions (uninhabited as well as inhabited) recorded in 1919 for the municipal districts/commissariats;

-it should become possible at the next stage, through the interpreting of data collected in the 1919 census for



street blocks, to verify hypothetical morphological and social contrasts within the municipal districts, formulated by referring to cartographic evidence as well as from observing building forms, non-extant as well as existing, in various parts of the city. Street block analysis is an essential part of the research process as a means of synthesising the two fundamental aspects of research: (a) urban form and its evolution viewed from the perspectives of "inner" city, municipal district and smaller sub-study areas); (b) the property "cell" within the urban landscape and its components (building, apartments and rooms). Plate A is intended to illustrate this breaking down of the urban area into spatial units and the research components within the tenement house (Plate B, on the other hand, is intended to illustrate varying densities of urban development in relation to plot structure in selected parts of inner Warsaw over time);

-building components of the tenement house and the process by which this property type came to predominate in the simultaneously evolving urban landscape (building phases, reference to property data from the 1864-1914 era) are examined. In this way, the extent to which "tenement uniformity" through the maximum developing of building plots in the Mid-Town study area came to characterise the evolving urban profile is considered. Urban form and its evolution is thus to be examined at this final stage at the scale of individual properties (case studies) or groups of properties forming landscape units (street blocks) in the Mid-Town study area. An alternative method of researching urban landscape development is considered in street profile evolution.

PRIMARY SOURCES

The historical nature of the research undertaken has made the procuring of a base plan predating Warsaw's destruction in the 1939-'45 war imperative; a plan providing a 2 dimensional, at least, record of the urban form. The plan secured, from the Archives of the Capital City of Warsaw, was draughted in 1925 by municipal land surveyors under the direction of J. Jeżowski at a scale of 1:2500, redraughted with certain revisions in 1936 (mainly in response to suburban development). Areas immediately relevant to this thesis (i.e. the leftbank Mid-Town or *Srodmieście*) have been reproduced in Part II of the thesis at a reduced scale of 1:5000 (plates v<sup>a</sup> and v<sup>b</sup> and plates VI<sup>a-e</sup>). Detailed illustrative maps contained in the thesis have been redrawn using this plan, which was itself based on the so-called Lindley Plans (*plany Lindleyowskie*) draughted during the laying of the new water-supply system and sewers in the 1880s and 1890s (subsequent 1:2500 scale plans from 1897 and 1903 preserved in the city archives). While taking into full account new, overwhelmingly state-government, building developments after 1918 in the Mid-Town, as well as interwar suburban housing projects, streets, etc., the "new" city plans of 1925 and 1936 would appear to have failed to record a significant number of private property developments in the Mid-Town between 1903 and 1914/'16. During research outbuildings and even a small number of whole tenement properties originating from this period and still extant have come to light which were not recorded on the interwar plans. Such defects, although not undermining the base plan's general usefulness as a record of the pre-holocaustal urban fabric, are regarded as reflecting

the failure to adequately document private properties in the inner urban area, as well as the unincorporated suburbs, raised during the 1868-1914 period, when the tsarist authorities were in control of municipal affairs.

Reference to detailed city plans from the study period would be expected to greatly contribute to analysis of the urban process and the spatial advance of tenement housing. However, apart from a revision of the yet earlier Engineer Officers' Corps plan (1867, scale 1:6800) and the above-mentioned 1:2500 scale general plans from 1897 and 1903, no town plans of a sufficiently specific scale to record property ground-plans have been preserved from this era. A series of detailed 1:250 scale Mid-Town maps was compiled in connection with the new water-supply system and network of sewers between 1886 and 1897 (for Praga in 1904-'6). Some of these plans have been referred to in selected street block or tenement house case studies in Part III.

Photographic evidence from the study period of interwar years has provided supplementary, "3-dimensional" information on the urban fabric: published albums are listed under reference entry no. 70 in "Notes", while additional materials for Nalewki and Grzybów districts as well as Nowy Świat, Chmielna St. and other parts of the leftbank inner city have been discovered in the History of Warsaw Museum collection and those of the Institute of Art (ISPAN).

"The Results of the Property and Apartments Census", conducted in July 1919 and released as a delayed municipal publication in two volumes (1922, 1923) has provided extensive statistical data for assessing the urban internal

structure as it had taken shape until World War One (refer back to "Research Methodology" for how the question of urban depopulation in 1914-'18 was got over).

Apart from the actual statistics (presented according to a territorial breakdown into municipal districts/commissariats/okręgi), the census publication included an explanatory, semi-analytical introduction: parts I and II of both volumes I (property statistics) and II (apartments statistics).

Data has been drawn from Volume I of the census results in Part I of the thesis:

-categorisation of property divisions in the metropolitan area into real estate (undeveloped), built-up (developed) and inhabited (in 1919) properties;

-(developed) properties classified into "uninhabited", "small", "medium-sized" and "barracks" houses according to numbers of apartments;

-the numbers of residents in (developed) properties. As a preliminary step to street block analysis, data relating to apartments and their functions (i.e. exclusively residential, mixed-residential or uninhabited commercial, industrial or public), as well as their subdivision into rooms, has had to be taken into account (data contained in the second, "apartments statistics" volume). Analysis of property sizes, as analogous with hypothetical building form, and numbers of residents in rooms, as an indicator of housing densities, has been made possible by supplementary data placed in an annex summary contained in the second volume.

The final stage of the investigation, focussing on the tenement house as a building form within and composing the urban landscape, is to be carried out in the light of

statistical information contained primarily in the first volume relating to:

-the number of building components and their constructional materials recorded in developed properties (available only at the scale of municipal districts);

-varying functions of building components (emphasising the theory of mixed functions being carried out within individual property "cells");

-building height (bearing in mind the building components comprising properties might vary in height);

-property ownership and the legal or professional status of the "tenement owners" (*kamienicznicy*).

Additional reference has also had to be made to the second volume in the statistical evaluation (again in relation to municipal district, because no data was released for the street blocks) of fluctuating flat sizes and their location within the property):

-flats classified according to their location (frontal house or outbuilding);

-the number of rooms recorded in flats;

-flats according to floor location (vertical factor).

The "house" or "outbuilding" component is the main statistical unit for examining the intensification of property development during the study period according to the following sources:

-municipal records compiled during the home rule era before the City Council's takeover by the tsarist authorities in 1868 (original documents are preserved in the Main Archives of Old Documents: AGAD);

-the One-Day Census of 1882 (*Spis jednodniowy Warszawy*) released as a municipal publication (1883-'4)

which includes a list of every private, built-up property in the city, the number of apartments in each property and registered residents; an invaluable source of information for determining the spread of tenement barracks housing in the study area up to that moment in time;

-the tsarist-sponsored sanitary commission's survey of 1891 (refer to the opening pages of Part II);

-incomplete, or partially-preserved, building statistics and records of building permission granted private developers during the study period (Fig. 3.4).

Property Registers (*Taryfy domów miasta Warszawy*) were compiled by the city's Tax Office according to Land Registry numeration until a reformed and consistent system of street addresses was introduced in 1887. The information they provide is not entirely reliable: plots already designated Land Registry numbers and built up are not always listed; numbers were occasionally entered incorrectly; "phantom" addresses appear in certain registers which, only by referring to later registers or, if available, detailed cartographic sources from that time, may be verified as having never existed; also, owners' names are frequently mis-spelled. The Property Registers are housed in the Municipal Archives ("Archiwum miasta stołecznego Warszawy") which is a subsidiary body of the Main Archives of Old Documents (AGAD). Registers from the period under investigation are available for the years: 1865, 1866, 1870, 1871, 1872, 1873, 1874, 1877, 1878, 1880, 1881, 1882, 1887, 1891, 1893 (in Russian), 1897 (in Russian), 1898, 1900, 1901, 1908, 1915 and 1918. These have been supplemented by W.Dzierżanowski's Directory of 1869, as well as H.Swiatkowski's "Property Registry and Map

of the City of Warsaw" published in 1852 ( republished in the mid-1980s as facsimiles) to compile an "Inventory of Warsaw Properties for the years 1852-1914", contained in the annex of Part III.

Although the information supplied by the Property Registers is not complete, they have proved to be the only sufficiently comprehensive source for tracing the demarcation of new building plots and establishing their location within the Mid-Town study area up to the outbreak of war; i.e. about 2731 new plots, of which 650 have not been located, although most of these would have represented undeveloped real estate or vacant sites (623 according to the 1919 census).

Warsaw's Land Registry Office was opened in 1818. Real-estate files were opened for each private property lying within the municipal boundaries. A separate branch and address system operated in the rightbank district of Praga. The inventory compiled for this thesis lists some 7000 real estate divisions in the leftbank inner city, of which 5415 in 1919 were recorded as having been built up to a greater or lesser extent (designated so-called Land Registry numbers, "numery hipoteczne" 1-7093). Almost 3000 of these divisions had already been registered prior to 1864 and for these older properties as many as 6 files were compiled between 1818 and 1944/1947. A file is divided into four broad sections:

I. records or inserted documents concerning changes of ownership and describing the property (building data, alterations, physical limits of the plot, subsequent partitions, etc.);

II. details relating to the owner, or owners, and family matters, including birth, marriage or death

ceremonies and certificates, military service of family members or even tenants, etc.;

III. documents referring to hereditary tenure, endowments and other legal matters, as well as servants employed by the owner;

IV. debts incurred by owners and records of longstanding debts among tenants to the owner/landlords, including eviction notices.

The older Land Registry files have been moved from the Municipal Archives to the provincial town of Pułtusk. More recent records, and potentially still relevant, particularly at the moment, have remained in the Land Registry Office (*Hipoteka*) on the East-West Thoroughfare, or *Solidarność* Avenue. This collection is probably the richest and one of the most exposing data sources for an investigation of the city's 19th. century social structure and urban fabric. A small-issue publication from 1979 entitled "Warsaw's bourgeois class in the second half of the 19th century in the light of public notary documents" (*Burżuazja warszawska drugiej połowy XIXw. w świetle akt notarialnych*) by J. Hensel offers minutely detailed insight into the public affairs, customs and domestic lives of a highly influential social minority. Very little information, however, of immediate practical value to research into urban form and the processes creating the urban landscape is contained in this study. Taken as a whole, Hensel's study seems illustrative of a basic lack of systematic research of this period (refer to Literature Survey). Archival materials are either too fragmentary or "top heavy" in their prolific, minute and often superfluous detail. For example, in the chapter enticingly entitled "The House Model" ("Model domu"), the number of chairs,



tables (walnut wood or mahogany wood), wardrobes, hand towels, day shirts, nightshirts, nightcaps, etc., as well as the obligatory grand piano, one would have expected to encounter in a typical middle class home of the 1850s are listed. On the other hand, no information is given - or is available - on how many rooms might have been contained in this late-Biedermeier apartment, nor how many other apartments might have composed this very genteel town house. Nor is there any reference to changing models of urban housing especially from around this time when such medium-sized town houses were beginning to give way to considerably larger rented tenement housing and the effects such changes would have inevitably had on such middle-class homes.

Hensel attempted to work out a synthetic approach to the mass of legal documents remaining in the Public Notary and Land Registry Offices. So far as researching the tenement house as a building form and its impact on the urban fabric are concerned, very selective and exhaustive examination of their contents is necessary (cf. J. Roguska articles in *Architektura i Urbanistyka* quarterly, with English translations, as well as her research publication on Warsaw villas). It could be said that the chaotic state of the Land Registry files is indicative of the chaotic direction which Warsaw's urban development took before the Great War. Only group research on the files might be expected to produce effective and integrated findings. Information of potentially greater value is contained within the files, but until now this has been limited to individual properties (e.g. M. Kwiatkowski working on the early-19th. century, apart from Roguska's findings for surviving tenement houses in the southern Mid-Town region).

## GLOSSARY

- Greater Warsaw* the metropolitan area (*wielka Warszawa*; area 11,483 hectares) did not become an administrative entity until Spring 1916 when the suburbs (*strefa podmiejska*) were incorporated into the previously functioning City of Warsaw (Pol.: *miasto Warszawy*; Rus.: *gorod Varshavy*).
- cyrkul* municipal districts coincided with the Russian police districts (Pol: *komissariaty*). Including Praga, 12 such districts (I-XII) operated throughout the study period until 1907 when a further 3 *cyrkule* were created (XIII, XIV, XV).
- okrag* replacing from 1916 the anachronistic term *cyrkul* (from the French *circule*; ie 'delineation'), but territorially little altered from the pre-1916 divisions. An additional 11 suburban *okręgi* (translated into French as *arrondissements*) were created (XVI-XXVI).
- dzielnica* apart from minor territorial realignments in 1938, the pre-1916 districts continued to operate until a new, greatly augmented metropolitan area was created in 1951 (44,541 hectares), subdivided into 6 expansive municipal districts (*dzielnice*). The previous inner urban districts have consequently lost any functional, or even preceptual significance in modern Warsaw.
- inner city* The concept of inner city, or "Mid-Town" (*Śródmieście*), has replaced pre-1950s distinctions between districts I-XIII, although certain localised associations persist:
- |                     |     |  |
|---------------------|-----|--|
| "Old" + "New" Towns | -   | I, II and part of IV                   |
| "East Muranów"      | -   | parts of III, IV + V                   |
| "Northern Centre"   | } - | I, X, XII; also parts<br>of VII + VIII |
| "Northern Powiśle"  |     |  |

"Southern Centre" } - IX, XI and XIII  
"Southern Powiśle" }

"West Muranów" (III-V) and "Western Centre" (VI, parts of VII + VIII) come under the municipal administration of Wola *dzielnica*, while part of the previously undeveloped Mokotów Fields (*Pole mokotowskie*) lie within *Sródmiście* (cf. fig. A3 in "Introduction").

*inter-  
mediate  
zone*

(Inner) Praga, Wola and Powiśle districts have been recognised as forming part of an inner-suburban area in relation to the city's pre-war development, situated between the densely built-up "Mid-Town" area and the suburban periphery.

*street  
block*

urban units defined by intersecting streets of the built-up area (Ger.: *Block*; Pol.: *kwartał*).

*building  
plots  
and  
Property*

"Property" (Ger.: *Grundbesitz*; Pol.: *nieruchomość*) was defined in the 1919 Warsaw property census as "a separate, immovable possession". As "a territorial unit (...) belonging to an individual person, corporate body or even several persons, partitioned off from other possessions of the same owner", real estate (Ger.: *Grundbesitz* or *Immobilien*; Pol.: *własność gruntowa*) in the city took the physical form of building plots (Ger.: *Grundstücke*; Pol.: *działki budowlane*). The term *parcela* (literally "plot") was applied in the said census to compact inner city building plots, while in undeveloped suburban areas "real-estate divisions" (*podziały gruntowe*) were considered as being more widely applicable.

For greater precision "developed" or "built-up" property (*nieruchomość zabudowana*) has been introduced in the thesis as an investigative unit for analysing the urban physical structure.

*buildings* On the grounds that developed property tended to consist of groups of buildings which might have been raised before or at different times within the study period, of varying size, height, constructional material, as well as the number of dwellings contained within it, an even more basic investigative unit has been recognised in the building component (*budynek*).

In Warsaw tenement house building configuration typically incorporated:

- ~ frontal house (front block; Ger.: *Vorderhaus*)
- ~ transverse ranges (or sidebuildings: *Seitenflügel*)
- ~ back range(s); ie backbuildings (*Quergebäude*)

These building components were raised around a central courtyard, or *Hof*; Pol.: *podwórko*.

*tenement  
barracks*

A term derived from the German *Mietkasernenhaus*, or rented barracks house, also adopted in Polish (*kamienica koszarowa*). The military connotation is not <sup>in</sup> any way connected with army building, but rather with a standardisation in domestic architecture during the Industrial Revolution, leading in continental Europe to the middle-class town house's demise and its replacement with apartment blocks leased out to tenants.

The "rented-barracks-city" (*Mietkasernenstadt*) was the dominant model of large-scale urban development throughout much of Central-Eastern Europe. *Koszarowość*, or "barracks-like quality" was recognised as the chief characteristic of both building type and housing conditions in Warsaw (1919).

*tenement  
house*

(Ger.: *Mietshaus*; Pol.: *kamienica czynszowa*, or *kamienica dochodowa*) is a more generalised term for "tenement barracks". A tenement's "barracks quality" has been based on the number of apartments it contains (ie in excess of 20)

*apart-  
ments*

are seen as being synonymous with "flats" (Pol: *lokale* being indistinguishable from *mieszkania*). An apartment very often was inhabited by more than one household or subtenants or a single lodger. Where expansive *bourgeois* apartments had been subdivided into smaller dwellings, one main entrance from the main staircase might well lead into a communal corridor (formerly serving as a vestibule-hallway), lending access to 2, 3, 4 or more flats of reduced living space.

*rooms*

(Pol: *izba*) might constitute whole family dwellings (ie singleroom apartments; *lokale jedno-izbowe*).

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PART I

THE INTERNAL STRUCTURE OF WARSAW IN 1914



## CHAPTER 1

### 1A THE FIRST COMPREHENSIVE PROPERTY COUNT

#### Warsaw and the new European order

The 1919 property census was carried out when the development of Warsaw had reached an evident watershed, arising from international conflict and an ensuing breakdown of the formerly prevailing system of state authority. This statistical base for appraising the city's urban structure as it had taken shape during the later half of the 19th.- and earliest part of the 20th. centuries dates from a time when not only Warsaw, or even the European subcontinent, but much of the modern world might be perceived to have been entering a new era. (1)

The 1914-'18 war created a political vacuum in Central and Eastern Europe following the collapse of tsarist Russia and military defeat of Germany and Austria-Hungary. Warsaw's occupation by the Wehrmacht in August 1915 ended just over one hundred years of Russian administration, which had ranged from a tolerant policy of home rule to almost complete centralisation based in St. Petersburg. (2) Although the evacuating Russians took with them considerable amounts of industrial machinery, blew up the three Vistula bridges and burned down the East Bank railway termini, while the Germans requisitioned many resources for their own war effort, the city was spared material destruction. Nevertheless, as the war dragged on migrational trends reversed as increasing numbers of first generation urban dwellers moved back to the country and virtually all civilian building came to an abrupt halt.

The dawning in 1918 of a new era seemed to herald far-reaching social and economic change. For Warsaw there was the additional, and major, consequence of regaining its long lost political status of capital city to an independent state in the wake of more than half a century of intensive growth as a provincial centre within the autocratic, centrally governed and, according to West European norms, extremely backward Russian Empire.

World War Two inflicted yet greater, even cataclysmic changes, depriving that dramatic turning point in European history concluded by the 1919 Paris Peace Conference of much of its significance to the modern world as well as to the modern city of Warsaw. The social and urban patterns investigated in 1919 were to be analysed in connection with defining a long-delayed and seriously-needed urban policy for the city, but these patterns would have ceased to exist in 1945 when plans for an effectively New Warsaw were drawn up. Wartime devastation and postwar redevelopment have rendered the 1919 census findings largely irrelevant to the external shape and community of the present day city. These results provide essential information for assessing the urban structure (as well as broad sociological characteristics, which had undergone a certain degree of transformation during the First World War) of Warsaw as it had evolved during the 1864-1914 period under examination.

Main objectives and circumstances surrounding  
the property count

No permanent property register or record of building

activity had existed for Warsaw before 1919 nor, in stark contrast to most major European cities, had a regular property count been taken since at least the mid-19th century. The surveys that had been made in 1882, 1891 and 1916 were conducted by different bodies with different objectives, the most recent of which had dealt exclusively with the suburban periphery.

"The Commission for the Apartments Census in the Capital City of Warsaw" was set up to conduct the actual count which, originally planned to be carried out in ten days, took place between 23rd June and 7th July 1919 in the 15 administrative districts of the so-called Mid-Town (*Śródmieście*) of the western Vistula bank and Praga on the eastern side of the river. These 15 "okręgi", translated into French as *arrondissements*, until the very recent suburban incorporations had constituted the city's entire territorial area.<sup>(3)</sup> The municipal districts of Warsaw, originating in the earliest administrative delineation of 1791 (i.e. into *cyrkuły* I-VII, including Praga), coincided with police district (*komisariat*) boundaries and were to function until major changes in municipal government were enacted in 1951. A district headquarters responsible for policing the commissariat was thus located in each *cyrkuł*; a new police station being opened with every successively-created municipal district (*cyrkuły* VIII-XV). Census regions corresponded with these municipal districts which had undergone miniscule territorial alteration from the Russian-rule *cyrkuły* during the administrative expansions and reforms of Spring 1916, carried out under German occupation but free of German interference.

Inner-city municipal regions were subdivided by the

Census Commission into street blocks "complying with the natural concentration of houses defined by intersecting streets."<sup>(4)</sup> "Property Questionnaires" were issued to property owners, "Apartment Questionnaires" to the heads of individual households, while the census collector filled out his own form and information chart on the constructional characteristics, function(s) and subdivision into "uninhabited", as well as "inhabited", apartments of each property investigated.

The two sets of questionnaires inevitably gave rise to a broad statistical division reflected in the eventual publication of separate "Properties-" and "Apartments Statistics" volumes. The volume recording statistics gathered from the property questionnaires and census collectors' data, with its emphasis on the number of buildings composing a single property, building type and function, constructional materials, dimensions, as well as internal fixtures and title deeds, offers extensive and often detailed insight into the urban landscape as it had evolved until 1914. The "Apartments Statistics" volume more reflects the social factor, in particular housing conditions as they existed in the summer of 1919. In view of four years of hardship the social structure of Warsaw as it had existed in 1914 was not reliably portrayed in the 1919 census which was primarily a property census anyway.<sup>(5)</sup> While the urban landscape might be assumed to have undergone insignificant alteration since the outbreak of war, the population of the newly-created Greater Warsaw area has been estimated to have fallen by 18.5% between 1914 and 1919).<sup>(6)</sup> It is impossible to say how many apartments had been occupied in 1914, although the overall number must have dropped dramatically during the war years, (taking into

account overcrowded living conditions in so very many Warsaw homes, and the amount of subletting, the number of apartments vacated between 1914 and 1918 was proportionally far smaller than the number of urban migrants; cf. "Vacated flats in developed properties" in Chapter 4).

A clear discrepancy exists between the original intentions of the census commission and those expressed in the delayed census publication by professors L. Krzywicki (from the Central Statistics Department) and E. Strzelecki (of the Warsaw City Council Statistics Division), who defined the property count's overriding aim as:

"(...) organising and carrying out a survey in Warsaw of unoccupied as well as occupied apartments, and a survey of properties, including those which are uninhabited, partially erected or demolished."<sup>(7)</sup>

The amount of detailed information gathered in 1919 reflects the ambitious objectives of the original census commission; objectives which are not emphasised in the census results publication prepared by Krzywicki and Strzelecki. Much of the data collected was never to be processed. The authors underlined the importance of recording unoccupied apartments and vacant or uninhabitable properties, because, in the long run, only these aspects of the census were to be considered of any practical value by the state governmental and municipal bodies financing the entire operation. [n]

Complications were encountered from the start in connection with still overcrowded housing conditions and the obvious inaccuracies of existing property taxation registers. The latter, particularly serious, hurdle was got over by applying specific definitions of property and apartment for the census collectors.<sup>(8)</sup> In spite of a

general willingness to cooperate among the 325 collectors, most of whom were still attending higher education, many of them turned out to be less reliable than had been hoped. Frequently they did not understand the procedure of filling out their own questionnaires, and information they found too complicated or demanding to gather was likely to have been approximated. As a consequence, data relating to certain street blocks discovered during processing to be suspect had to be so recorded when the results were finally published. An additional factor undermining the overall survey's accuracy was the widespread fear among the Jewish community inherited from chauvenistic tsarist policies of exorbitant taxation. The census publication authors were eager to stress that while the data was not always complete, it was "highly characteristic that no conscious attempt to give false details was recorded." (9)

The sub-urban periphery

An insurmountable problem was experienced with the second, envisaged stage of the census in the gathering of similarly detailed data for the 11 recently incorporated suburban districts, composing an extensive, semi-rural and barely integrated area of more than 8,200 hectares; i.e. about two and a half times greater than the combined area of the inner, or Mid-Town districts and Praga. In the suburbs street names often did not exist for what all too frequently constituted little more than dirt tracks. Property numeration was highly unsatisfactory, municipal administration barely existed while some of

the overwhelmingly wooden buildings had been pulled down or even destroyed during the Great War. Property owners were often difficult to track down, not least because the census was carried out in the middle of harvest time and many suburban dwellers, being peasant farmers by occupation, were away working in the fields of their neighbours or beyond the Greater Warsaw area. When an owner could be found, he might well be illiterate, while innumerable, longstanding landownership disputes might utterly confuse census collectors. The definition of property applied to the inner city districts frequently could not be applied in the suburbs. A typically rural feature was the suspicion which met the collectors' inquiries.

The complications involved in extending the property census into the suburbs proved so great that in the long run data collected during the 1916 count had to be resorted to, itself not always satisfactory in detail or accuracy and, in view of three traumatic years, already out of date.<sup>(10)</sup>

Further difficulties arose with surveying factory properties in the inner city as well as the suburban periphery; in its haste the census commission had failed to make suitable provision for investigating industrial buildings, which frequently had incorporated into it some housing space. Finally, a significant proportion of state-owned building directors did not acknowledge the commission's jurisdiction and refused to answer the questionnaire; this was the case with the Polish State Railways (PKP).

Financial insolvency and delayed publication

Problems in the field were not where the uphill tasks of the census ended. The national government had much bigger fish to fry at a time when the nascent Polish state's security, as well as its territorial, integrity were far from established.<sup>(11)</sup> Even the municipal authorities proved somewhat intransigent, at least to begin with. Financial difficulties were the inevitable and rapid outcome. The credit initially supplied to the commission barely covered the costs of collecting and cataloguing the data, which apparently laid untouched until the City Council Statistics Division finally intervened in July 1920. The reason for this fortunate turn of events was an entirely practical one; the responsibility of empty building plots, destroyed buildings and deserted housing in need of repair had been given over to the City Council's Accommodation Office together with the Ministries of Public Works and Health.

The commission's findings thus took on a new and immediate importance, and presumably it is to joint cooperation between the Council and employees of the Central Statistics Department, as well as support from the two governmental ministries that recognition is due for the eventual, if long-delayed publications of the census results in June 1922 (Volume I : Property Statistics) and December 1923 (Volume II : Apartment Statistics). The authors were anxious to explain this delay in the first volume:

"Recent international events, the calling-up to the army of our staff and later retractions of our office, as well as the serious lack of necessary financial support to publish, have greatly delayed the releasing of our results."<sup>(12)</sup>



A need was clearly felt to emphasise the continued relevance of the census:

"The Statistics Division of the Warsaw City Council which is publishing the following census findings has continued the work of the Commission for the Apartments Census and has remained, as far as at all possible, in constant contact with the members of the said commission in order to maintain the continuity of the original investigation and its aims." (13)

This is not to say that the Council was in a position to process all the data amassed during the original count, as the authors freely admitted. Considering the exceptionally difficult circumstances it was no mean feat that anything from the census was published at all. Evidently, it was not realistic to adhere to the ambitious, high-minded plans of the now defunct census commission; personnel, funds and time were simply too limited. To economise on all three, as well as to coordinate conflicting levels of detailed information for the, on the whole, sufficiently investigated inner 15 *arrondissements* and insubstantially examined suburban zone, the statistical data relating to both properties and apartments was presented according to the 26 administrative districts and not, unfortunately for our purposes, according to street block.

"The excessive time and cost involved in verifying and correcting such a division" (i.e. into street blocks) "has made it necessary to condense the results into tables relating to a far less revealing territorial breakdown. In this publication the police districts have been resorted to as the most discriminate divisions." (14)

The wealth of data collected for the 13 West Bank inner city districts and the 2 central, East Bank districts of Praga was, at least, partly published in the second volume as a single annex chart recording only some basic information on numbers of properties, flats and tenants in each street block. It is to be presumed that the vast number of questionnaires for each property and every individual apartment in the inner city and Praga area<sup>(15)</sup> was filed away in the Town Hall or Central Statistics Department and destroyed during the 1944 Warsaw Uprising.

The relevance and shortcomings of the 1919 census publication

It has been assumed that the first volume of the census results, recording structural and functional characteristics of properties located in what were referred to as the Mid-Town and Praga, is of primary relevance to defining Warsaw's urban profile as it had evolved until the First World War. Data relating to the urban periphery, or outer city, based on the 1916 survey, permits verification of the enormous structural, as well as social, contrasts which can be expected to have existed between these still largely unintegrated suburban regions and the 15 districts constituting the city of Warsaw before 1916. The second volume, containing apartment statistics, serves as a supplement to the first volume.

The essential drawback to the census findings published in 1922 and 1923, recognised by Krzywicki and Strzelecki, was the presentation of data according to district rather

than street block. "The Results of the Property and Apartments Census for Great Warsaw in 1919" provide a solid and unique statistical record of the city whose dynamic development had been halted by the 1914-'18 war and whose urban pattern still remained frozen in 1919.<sup>(16)</sup> However, any breakdown of that urban pattern is almost entirely limited to identifying contrasts between the 26 municipal districts. These local government areas did not reflect certain broad variations in the urban profile, population densities and functional structure of Greater Warsaw. Nevertheless, they also concealed immense internal contrasts which could have been identified if the census results had been calculated using smaller and more correlative territorial units.<sup>(17)</sup> The 13 inner urban (i.e. Mid-Town) *arrondissements*, moreover, did not relate to the city's spatial development during as well as prior to the 19th. century,<sup>(18)</sup> nor did they reflect the contemporary functional structure.<sup>(19)</sup>

The over-generalised presentation of property and apartments statistics in the census publication is partially alleviated by the supplementary annex table recording the numbers of flats, rooms and inhabitants of the 435 street blocks in the 15 municipal districts comprising the so-called Mid-Town and Praga.<sup>(20)</sup> This additional and more precise information offers much insight into Warsaw's physical as well as social structures as they had evolved in the late-19th. and early-20th. centuries.

The application of a census for the  
greater metropolitan area

The Greater Warsaw area (cf. Fig. 1.1.) was created between 1915 and 1917 under the supervision of Warsaw City Council's Building Division.<sup>(21)</sup> As such, it was a very new political body which has come to be considered a direct outcome of the Russian withdrawal, ending what is generally perceived among Polish circles to have been a fundamentally damaging tsarist stranglehold on the city's development.<sup>(22)</sup> It is perhaps ironic that the so-called "great incorporation" was in fact initiated in the twilight of Russian rule by the tsarist viceroy.<sup>(23)</sup>

Warsaw's administrative area had indeed increased minimally under Russian rule. The city had been encircled by fortifications after 1878, and only following their closure in 1911 had it become possible to construct in the suburbs anything more substantial than improvised wooden buildings which could be rapidly pulled down in the event of local or international hostilities breaking out. As long as the fortifications operated no urban planning scheme was tolerated by St. Petersburg; even after 1911 attempts by the City Council to annex the suburbs met with disapproval or at best indecision from the state authorities. The relationship between municipal and state government had become highly complex, even in Imperial Russia.<sup>(24)</sup> There is no cause in urban analysis to become embroiled in national schools of historical interpretation. The Polish urban historian, Irena Pietrzak-Pawłowska concludes:

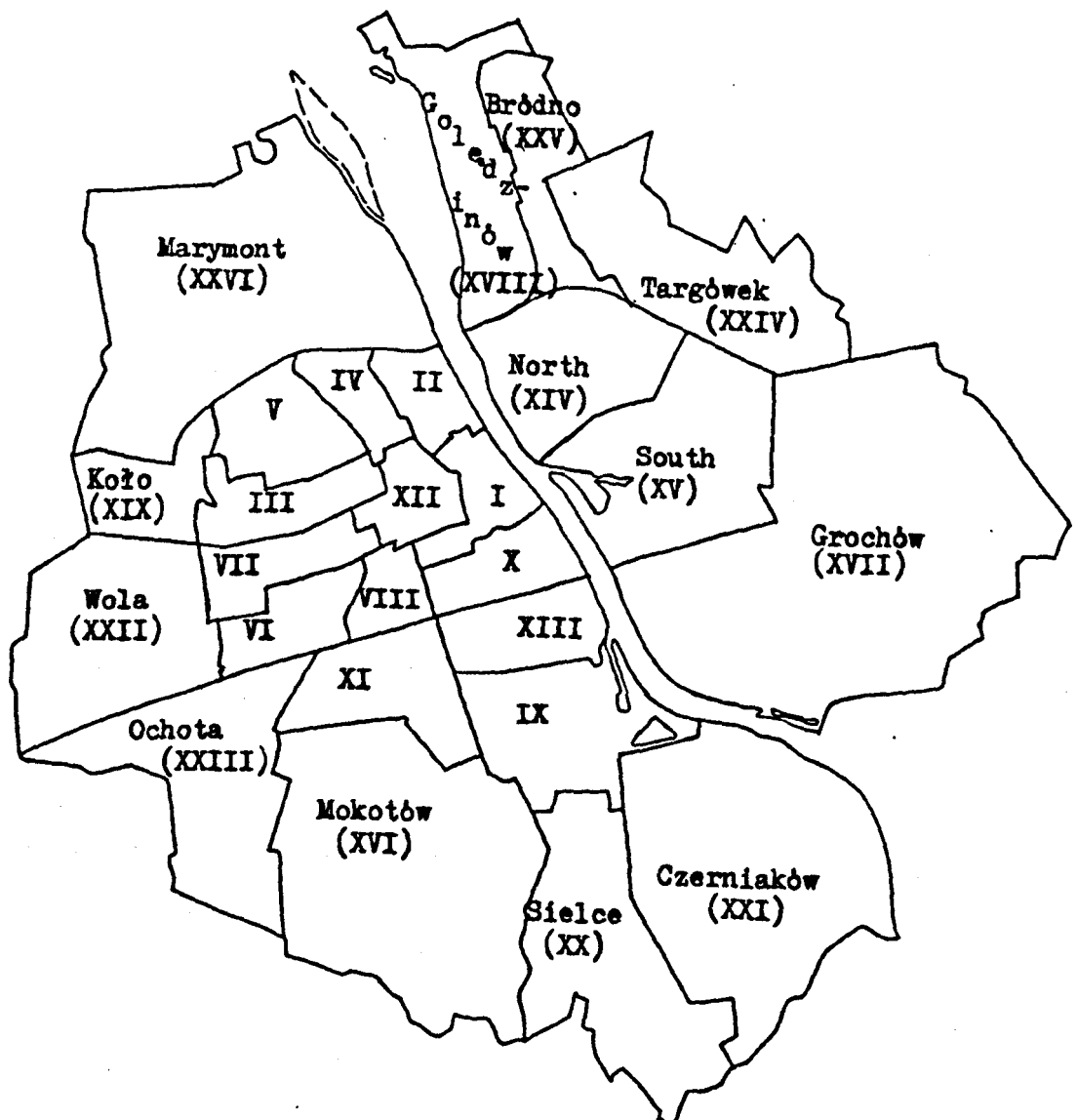
"Investigating Warsaw's past demands, nevertheless,  
a complex analysis of historical realities in which

the city's multiple functions and the life of its inhabitants took shape. The conditions under which Warsaw developed were created by universal changes no less than by the fortunes of region and country."(25)

Although the suburbs were administratively integrated with the main city only at the end of the theoretical building phase under investigation, they clearly belonged to the city functionally from a much earlier time.(26) A certain analogy might be drawn with the New York City Consolidation Act of 1897,(27) or the creating of Gross Berlin in 1920,(28) when the city boundaries were extensively augmented to embrace suburban communities. The major difference in Warsaw's case was the extreme lack of administrative organisation and public facilities, the tackling of which was to prove one of the Second Polish Republic's more impressive undertakings.(29)

The 1919 survey is to be examined retrospectively and not in the context of providing groundwork for redesigning the urban fabric and/or reforming living conditions in what the statisticians responsible for the census publication quite justifiably regarded as an overcrowded, chaotically formed big city. Even though this census took place when the development cycle, or rather, cycles, of the 1864-1914 period were over, in the absence of any similarly detailed and methodical survey from before the Great War, it is necessary to refer to the property census results extensively in order to determine Warsaw's urban profile as it had evolved during what is frequently called the late-industrial era.(30)

Figure 1.1 : The twenty-six municipal districts of Greater Warsaw from 1916.



The mid-town districts before and after the suburban incorporation of 1916

"cyrkuł" (prior to 1916)	district name referred to in text*	"okrag"/"arrondissement" (post-1916)
I Zankowy	Castle District	I Krakowskie Przedmieście
II Soborny	New Town "	II Stare Miasto
III Mostowski	Leszno "	III Leszno
IV Bielański	Nalewki "	IV Muranów
V Powązkowski	Okopowa "	V Powązki
VI Towarowy	Towarowa "	VI Towarowy
VII Wolski	Mirow "	VII Mirowski
VIII Jerozolimski	Grzybów "	VIII Grzybów
IX Łazienkowski	Ujazdów "	IX Ujazdowski
X Nowy Świat	New World "	X Ordynacki
XI Koszyki	Koszyki "	XI Koszyki
XII Centralny	N. Central "	XII Ratuszowy
XIII Aleksandryjski	Alexander "	XIII Solec

\* District names have been chosen for their relevance to the 1864-1914 period and historic continuity, (cf. chapters 5, 6, 7)

1B PROPERTY DIVISIONS AND BUILDING DENSITIES  
IN GREATER WARSAW

Developed property and real estate

Property was defined for the purposes of conducting the 1919 census as :

"a separate, immovable possession (real estate) constituting a certain economic whole" and "  
(...) a territorial unit, empty or built up, belonging to an individual person, corporate body or even several persons, partitioned off from other possessions of the same owner." (31)

It was not unusual that an explanation of the component under investigation should be emphasised, but in the case of a city such as Warsaw where an all-embracing property count had no effective forerunner, this definition would seem to have been particularly important.

A total of 13,551 properties was registered and investigated by the census commission. The City Council tax office listed 11,738 divisions while the police department recorded the existence of 13,261 properties in the Greater Warsaw area. These considerable discrepancies resulted mainly from a lack of organisation in the suburbs, although confusion in the Mid-Town districts often arose with groups of properties belonging to one owner (note : 650 building plots demarcated in the years 1876-1915 in the Mid-Town *arrondissements* alone have not been located; cf. Table 17 in Part III). It is likely that most, if indeed not all, these plots had not been developed, being listed as such in the

Land Registry Office, the records of which would have been of some practical help to the 1919 census commission. Private owners would have felt no great inclination to register such undeveloped properties at the City Council Tax Office.

"Immense complications were encountered in determining the number and category of properties through the lack of any single, definitive and external characteristics common to all properties."<sup>(32)</sup>

The census commission's defining of property and real estate as separately functioning units within the urban organism, on the grounds that this was the only concept common to all types of property reveals that Warsaw had been taking shape, like most so-called capitalist cities of the period, in accordance with the dictates of private ownership.

It was noted that properties which had been developed were fully accounted for in public and police records:

"Built-up properties possess as a rule separate police and land registry numbers as well as a record of registered inhabitants."<sup>(33)</sup>

Although allowance had to be taken of land which had not been built upon in central-inner Warsaw, the bulk of undeveloped properties unaccounted for in municipal, land registry and police sources lay in the suburbs, represented by cultivated fields, pastureland, meadows and even marshes. The subdividing of land into property units complied with compact building plots (*parcelle*) in the intensively built up quarters of *arrondissements* I-XIII and XIV-XV, and predominantly extensive, real estate divisions (*podziały gruntowe*) in the suburban *arrondissements* XVI-XXVI.<sup>(34)</sup>



Developed property, recognised as a statistical unit (*jednostka statystyczna*) in the 1919 property count, constitutes a basic investigative component for analysing the urban profile and the processes by which that profile evolved during the 1864-1914 period.

#### Concentrations of developed property\*

In Table 1 mean densities of property divisions per hectare have been calculated according to municipal district. Subcategorising the absolute number of properties (column A) into built-up properties (column B) establishes in very broad terms the extent to which one district had undergone urban development in comparison with another. Built-up (*zabudowana*) or developed property at this stage is a very relative term, taking no account of building size, height, constructional materials, etc.. Recording the number and density of inhabited properties (column C) reflects the degree to which housing was incorporated into developed properties regardless of whether a given property's main function was residential, industrial, commercial or even public.<sup>(35)</sup>

In the case of suburban districts XVI-XXVI only the absolute number of properties has been taken from the 1919 census. Figures for built-up and inhabited properties have been based on the survey carried out between the 27th. and 30th. June 1916<sup>(36)</sup> on the grounds they better

\*Refer to Tables I and II in the annex to Part I

Table 1 : Property densities in the Greater Warsaw area

District /okrag/	Area in hectares	PROPERTY DIVISIONS			Mean number of prop- erties per hectare		
		plots /A/	built-up /B/	inhabit'd /C/	A	B	C
I	116	459	416	405	3.96	3.59	3.49
II	106	435	411	403	4.10	3.88	3.80
III	173	661	566	555	3.82	3.27	3.21
IV	116	253	231	223	2.18	1.99	1.92
V	208	495	413	405	2.38	1.99	1.95
VI	174	486	429	420	2.79	2.47	2.41
VII	168	565	501	493	3.36	2.98	2.93
VIII	99	476	428	417	4.81	4.32	4.21
X	137	508	465	460	3.71	3.39	3.36
XII	121	321	312	303	2.65	2.58	2.50
IX	396	358	296	288	0.90	0.75	0.73
XIII	203	516	473	467	2.54	2.33	2.30
XI	290	515	474	466	1.78	1.63	1.61
XIV	388	656	476	468	1.69	1.23	1.21
XV	578	671	471	467	1.16	0.81	0.80
XVI	1106	570	418	401	0.52	0.38	0.36
XX	560	604	311	306	1.08	0.55	0.55
XIX	183	230	150	149	1.25	0.82	0.81
XXII	569	709	403	402	1.25	0.71	0.71
XXIII	538	584	413	413	1.09	0.77	0.77
XVIII	406	365	244	241	0.90	0.60	0.59
XXIV	427	631	442	435	1.48	1.04	1.04
XXV	337	643	474	466	1.91	1.41	1.38
XXVI	1308	944	729	707	0.73	0.56	0.54
XVII	1722	600	337	330	0.35	0.20	0.19
XX	560	604	311	306	1.08	0.55	0.55

Table 2 :

A breakdown of Greater Warsaw into Mid-Town, inner-rightbank and suburban zones based on property densities

Urban Region	Area in hectares	Property divisions			Mean number of prop- erties per hectare		
		plots /A/	built-up /B/	inhabit'd /C/	A	B	C
MID-TOWN I-XIII	2307	6048	5415	5305	2.62	2.35	2.30
PRAGA XIV-XV	966	1327	947	935	1.37	0.98	0.97
SUBURBS XVI-XXVI	8210	6176	4057 <sup>+</sup>	3986	0.75	0.49 <sup>+</sup>	0.48 <sup>+</sup>
GREATER WARSAW I-XXVI	11483	13551	10136	9956	1.18	0.88	0.87

approximate to the situation as it had existed prior to the outbreak of war. In 1916, 4057 built-up and 3986 inhabited properties were recorded, in contrast to 3774 and 3716 respectively in 1919, reflecting accelerated depopulation and demolition of wooden buildings for materials and even firewood in these districts under the impact of prolonged wartime conditions. No detailed survey was made in 1916 of the so-called Mid-Town and Praga where living conditions also worsened, but damage to property was far less extensive. The registering in 1919 of 16 developed properties in need of general repair in municipal districts I-XIII and 8 in Praga underlines the comparatively insignificant dilapidation of inner-central Warsaw's housing stock between 1914 and 1918.

The census commission defined a threefold territorial division of Greater Warsaw for interpreting the results. A broad distinction between the inner and outer-suburban zones was recognised, with a subdivision of the inner city between the 13 "Mid-Town" (*dzielnice śródmiejskie*) districts on the River Vistula's west (i.e. left) bank and the two inner-rightbank districts of Praga.

"A clear distinction based on property concentration exists between Warsaw's Mid-Town, Praga and suburban regions. The Mid-Town possesses almost two times more" (in absolute terms) "properties to the hectare than Praga and almost four times more than the suburbs. The dividing up of real estate for building development purposes in connection with the increase in value of plots nearer the centre is the main cause" (i.e. causal factor) "of these differences." (37)

This dividing up, or parcelling of land into building plots can be assumed to have been virtually complete in the inner

13 *arrondissements* and to have been very advanced in Praga. In the suburban districts the process was barely underway or had been hindered by restrictions imposed by the tsarist authorities for military-strategic reasons.

Mapping this basic statistical information in diagrammatic form helps to clarify the broad contrasts existing in Greater Warsaw's urban profile. However, the information is so generalised at this stage it is open to different interpretations (cf. cartogram I in Plate I). Apart from the relative value of the term built-up property (*nieruchomość zabudowana*), the fact that no account was taken in the census of undeveloped land, represented by military terrain, parks, municipal grounds etc., must also be born in mind. Certain characteristics are already identifiable. The municipal district recording the greatest number of developed properties in relation to its (overall) territorial area (*okręg VIII*) was situated at the very heart of metropolitan Warsaw, while all but 4 of the inner leftbank *arrondissements* possessed denser property concentrations than any of the inner rightbank or suburban districts. Less than 2 developed properties per hectare were recorded in *arrondissements* IV, V, IX and XI, but it cannot be assumed that they were in anyway morphologically similar to districts XIV (Praga North) or XXIV and XXV where developed property densities were recorded as exceeding one per hectare. Reference to detailed cartographic sources<sup>(38)</sup> reveals the juxtaposition in districts IV, V, IX and XI of intensively built-up street blocks and large tracts of undeveloped land. In contrast, suburban districts XXIV and XXV were characterised by dispersed, wooden buildings covering most of their territories. Large and thriving suburban communities (Targówek, Nowe Bródno and Pelcowizna)

had arisen here from the 1880s<sup>(39)</sup> in connection with the concentration of railway sidings and depots behind 3 main East Bank railway termini, but the raising of stone and brick structures had been severely limited by tsarist building regulations because of the Alexander Citadel's proximity, with its subsidiary forts and extensive military esplanade. The urban profile of Praga North, and, to a lesser extent, of Praga South (XV), was distinguished by enclaves of compact brick building mixed with more dispersed wooden structures as well as extensive military grounds in the North and undeveloped land in the South.

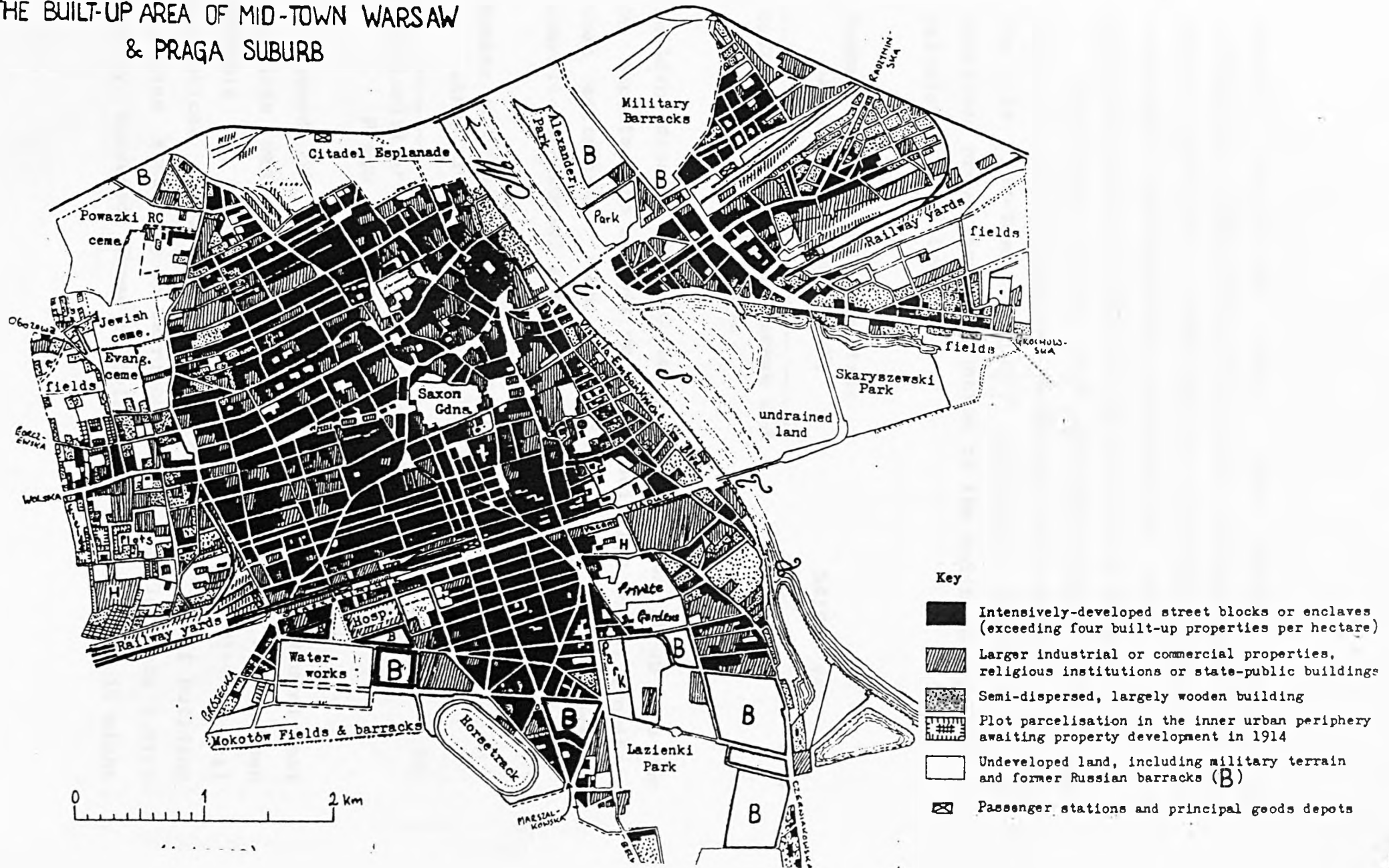
#### Undeveloped land in the Mid-Town and Praga districts.

Of the 3273 hectares constituting the 15 inner districts which had composed the City of Warsaw prior to the 1916 incorporation, 2073 hectares were classified as built-up.<sup>(40)</sup> Extensive railway sidings with workshops behind the Vienna/Kalisz, Terespol and Kowal stations together with streets and squares accounted for 563 hectares. The remaining 637 hectares, which were designated "green terrain", included military grounds formerly belonging to the Imperial Russian Army, the Łazienki, Alexander and Ujazdów parks, a southern inner-city green belt area and 3 smaller town parks, 2 expansive private gardens and a complex of cemeteries located in the north-western district V (cf. Fig. 1.1.). A relatively insignificant number of undeveloped properties identified in the 1919 census as farmland (207 in the Mid-Town, 164 in Praga), presumably horticultural, and situated in the

peripheral parts of *arrondissements* III, V, VII, IX, XI, XIV and XV, would have been classified green terrain together with the military complexes, exercise grounds, parkland etc.. Unfortunately, there is no explanation of how undeveloped industrial and commercial properties (159 in I - XIII, 32 in XIV - XV) or building plots serving no functions (211 in I - XIII, 167 in XIV - XV) were classified in terms of developed and undeveloped land. Disused property divisions near railway complexes in all probability treated as undeveloped land, whereas an empty building plot cleared for a projected new edifice or a factory closed down during the war can be expected to have been classified as forming part of the built-up land. (41)

Significantly, no distinction appears to have been made for the suburban districts between built-up and undeveloped land. Although the suburbs still represented mainly virgin territory for developers, detailed town plans from the early 20th. century provide irrefutable evidence of extensive plot parcellisation and building activity prior to 1914, particularly in Mokotów (XIV), Sielce (XX), Wola (XXII), Ochota (XXIII), as well as the aforementioned shanty growth in Targówek (XXIV) and Nowe Bródno (XXV). (42) Until 1916 each of these districts had come under the jurisdiction of rural parishes (*gminy*) and has possessed no form of municipal government or district records of their own. The 1919 census commission referred extensively to public records belonging to the Warsaw City Council, a considerable proportion of which had been destroyed or confiscated in 1915 by the retreating Russians. While it had become customary in official surveys of most European cities to consider property, or building densities in relation to built-up area, (43) the 1919 census based its results on the

Figure 1.2 :  
THE BUILT-UP AREA OF MID-TOWN WARSAW  
& PRAGA SUBURB



overall territorial area. This major drawback to effectively interpreting the census findings arose from the lack of sufficiently detailed land survey data, both for the previously unincorporated suburbs and, even, for the 15 districts formerly constituting the City of Warsaw. (44)

Referring to the only available record of developed land (i.e. 2073 hectares), which applies to Praga as well as the 13 Mid-Town municipal districts, the density of developed properties in relation to the built-up area can be calculated as follows:

Number of developed properties in <i>okregi</i> I-XIII and XIV-XV	5415 + 947
Built-up area of inner Warsaw and Praga in hectares	2037
	= 3.07

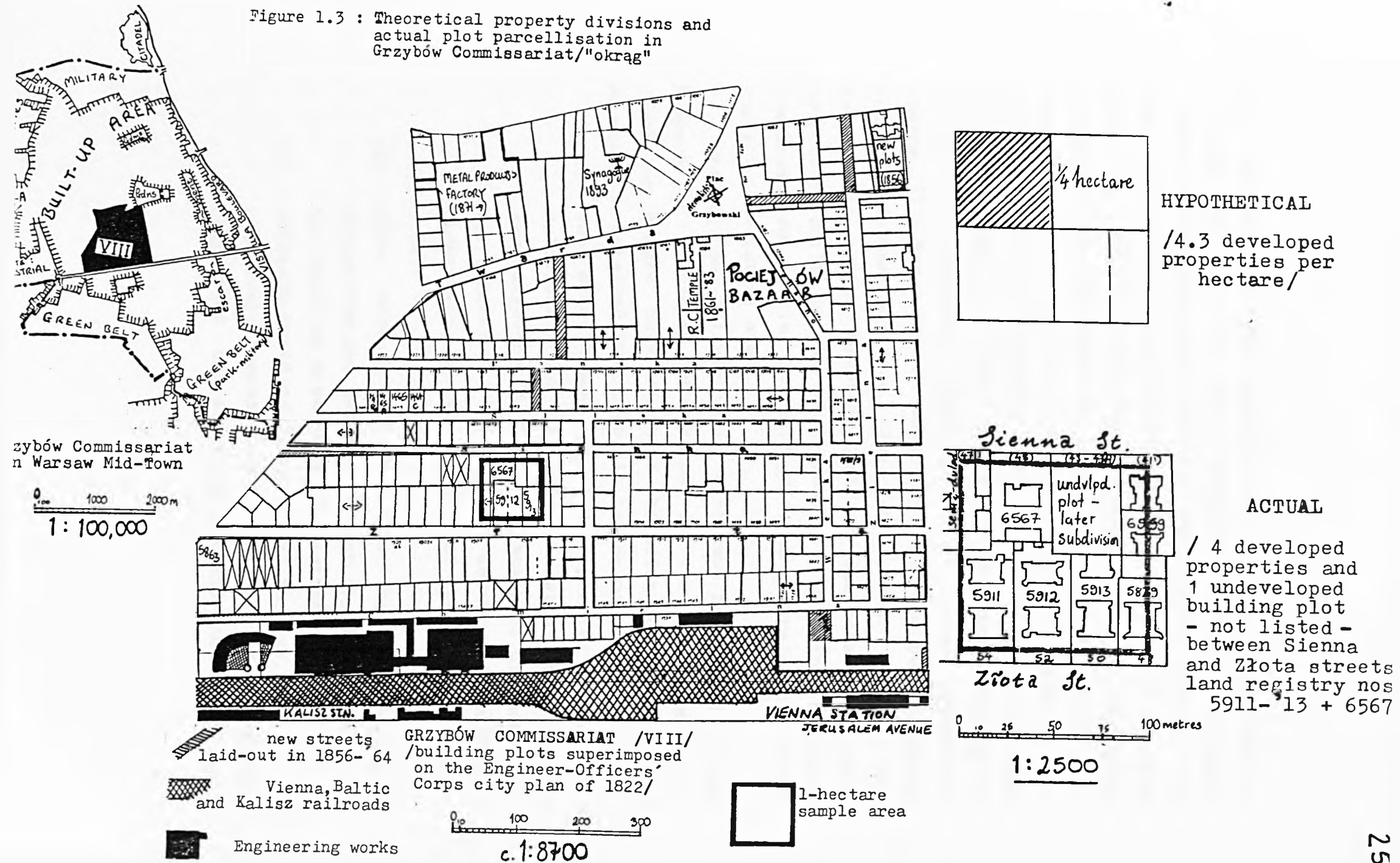
Building densities calculated according to built-up area can be expected to reflect more realistically actual densities than estimations like those in Tables 1 and 2 based on overall territorial area:

Number of developed properties in <i>okregi</i> I-XIII and XIV-XV	5415 + 947
Territorial area of inner Warsaw and Praga in hectares	3273
	= 1.94

No record of built-up area for the individual municipal districts was made in the 1919 census, nor has it been possible to find any such record in annual City Council statistical publications from before 1915. (45) If building densities according to territorial area in districts I-XIII greatly exceeded those calculated for XIV and XV, it might



Figure 1.3 : Theoretical property divisions and actual plot parcellisation in Grzybów Commissariat/"okrąg"



be assumed that the numbers of properties per hectare in relation to built-up area exceeded 3.07 in the left-bank inner city and fell well short of that figure in Praga. The central location of *arrondissement* VIII ("Grzybów") at least partially explains why the highest number of developed properties in relation to overall hectaral surface was represented by this district. Nevertheless, Grzybów formed only a part of the urban core; nor should it be presumed that building - as well as population - densities had to relate to Warsaw's geographical or even commercial centre.<sup>(46)</sup> Map 1 reveals that, excluding one public square and the Vienna Railroad lines with their sidings and engineering works, Grzybów district was consistently and compactly built up; no other inner city municipal district possessed so little undeveloped land in relation to its overall territorial area.

Drawing on calculations which have been based on the numbers of developed properties in the 1919 census and combining meagre information on the built-up area of inner Warsaw with detailed town plans it can be concluded that:

- (a) the mean number of 4.3 properties per hectare calculated in accordance with the eighth *arrondissement's* total surface area did not fall far short of the actual density of developed properties in this part of the city (cf. Fig. 1.3);
- (b) this mean number of more than 4 developed properties per hectare in fact applied to most of the built-up area of inner westbank Warsaw;
- (c) although building plots varied in size, a relatively consistent density of developed properties characterised the Mid-Town districts,

especially those districts such as Grzybów which, as will be seen, had not undergone intensive urbanisation prior to the late-19th. century.

#### Buildings and developed properties

No clear distinction has been made as yet between concentrations of developed properties and the more commonly acknowledged concept of building density. This ambiguity arises from the arguably unorthodox methods of the 1919 survey, excused by the census publication authors as being necessitated by the difficult circumstances under which the property count was conducted; and even by what was very frequently referred to as the "unnatural" or even "Tartar" urban, social or architectural characteristics of the city itself.<sup>(47)</sup> The census commission chose to separately define buildings "as any construction comprising a single entity in a technical sense"<sup>(48)</sup> from developed properties. It should become obvious at a later stage that built-up properties, especially in the more intensively developed parts of the city, generally consisted of complexes of usually interconnecting buildings which often had been constructed or extended at different periods and even fulfilled differing functions, while forming an integral part of the same property and belonging to the same owner (refer to "Building components comprising tenement properties" in Chapter 9, Part III). This kind of urban morphology was far from unique to Warsaw; what is exceptional is that the property count took into account every building as a constructional subdivision of each

developed property. This additional detail provides bonus insight into the urban structure of Warsaw, which in view of the lack of comprehensive archival sources or building records is of particular importance to this study.

Building densities have been calculated according to developed properties (*nieruchomość zabudowana*) and not, as would be the case with British towns, according to buildings or houses. While buildings (*budynki*) rarely defined more than part of a developed property, the yet vaguer terms of "house" or "home" were designated "inhabited property" (*nieruchomość zamieszкана*). Categorising a property as inhabited indicated that property was developed.<sup>(49)</sup> Out of a total of 13,551 property and land divisions recorded in the Greater Warsaw area by the 1919 census, 10,181 (i.e. 75.13%) were discovered to be developed and 9956 (73.47%) to be inhabited. This apparent synonymy of inhabited property with developed property has yet to be considered; it would appear to have been a fundamental sociological trait of pre-1939 Warsaw that virtually every building complex to a lesser or greater degree served a residential function. Developed - i.e. built-up - properties accounted for 89.80% of all land estate divisions in the Mid-Town, 71.97% in the 2 inner right bank districts of Praga and only 61.45% in the suburbs. The threefold territorial division between *arrondissements* I-XIII, XIV-XV and XVI-XXVI can be expected to become more pronounced as the urban analysis becomes more detailed.

## Chapter 2

## DEVELOPED PROPERTIES AND APARTMENTS

The 1919 census established that 9956 of the 10,136 developed properties in Greater Warsaw were inhabited, not counting 24 properties with habitable but unoccupied apartments; i.e. in more than 98% of built-up properties the provision of housing space in some form was recorded (cf. Table II in the annex to Part I). No distinction for the moment is made between purely or predominantly residential building complexes and properties in which the accommodation of people was of secondary importance; in factories or office and public buildings, for example, only the caretaker, with or without family, might be living permanently on the premises. In Warsaw, as in nearly all major continental cities undergoing intensive urban development prior to 1914, apartment accommodation inevitably prevailed over single-family houses. The preponderance of multiple housing-unit buildings necessitated the conducting of a quite separate survey of apartments within the general property count of 1919.

## Property and apartment statistics

A certain discordance would seem to have been encountered with correlating the statistics gathered from the property and apartments surveys. In the property questionnaire filled out by the owner (cf. "Instructions for Census Collectors" issued by the census commission and "Property

Questionnaire" translated in the statistical annex of Part I), apartments were interpreted collectively as :

"a set of interconnected, inhabited quarters designed as a single unit during a house's construction." (50)

In the apartment survey, however, emphasis was placed on the actual living unit as "all rooms occupied by one or several households", details of which were filled in on a quite separate questionnaire by the chief occupant of each apartment (cf. "Apartments Questionnaire" in annex). While landlord-proprietors might be expected to have perceived their properties in terms of the overall number of rooms or apartments they let, tenants would have been concerned primarily with the room or rooms they rented, regardless of whether these rooms constituted an entire apartment with its own flat number or formed only part of an apartment shared by more than one household. A substantial proportion of tenants sublet a room or rooms to subtenants. No absolute distinction could exist between flat/apartment (*lokal/mieszkanie*) and room (*izba*), because not all apartments consisted of separate rooms. If a single dwelling was composed of only one room that room in itself had to be classified an apartment and the terms "room" and "flat"/"apartment" became indistinguishable. To avoid confusion, the expression "single-room apartment" (*lokal jednoizbowy*) was, understandably, adopted in the 1919 count, as well as in the surveys of 1916, 1891 and 1882 carried out for inner or suburban Warsaw. (51)

It was noted that a certain degree of inaccuracy had arisen in the apartments survey results, because some property owners had counted cellars, attics, shops connected to living space and even garrets above attics as separate

dwellings in spite of the fact these auxiliary chambers did not function as apartments.

#### Defining house types according to numbers of apartments

The property survey-orientated definition of an apartment as forming one of a number of dwelling units located in a house or complex of buildings occupying a building plot can be applied in the analysis of Warsaw's urban morphology. Statistical information pertaining to individual apartments and their inhabitants is of greater relevance to investigating housing conditions as they existed at the precise moment of the property count.<sup>(52)</sup> By referring to apartment statistics and relating them to property statistics it should be possible to establish a broad classification of habitable properties. In effect, hypothetical housing types may be formulated based on numbers of apartments recorded in developed properties, which in the census results were presented according to municipal districts.

In the property census publication Krzywicki and Strzelecki proposed a threefold category of housing property types corresponding with what they called international statistics.<sup>(53)</sup> A resolution passed at the Vienna Housing Congress of 1910 had drawn a basic distinction between single-family, or small houses containing 1, 2, or 3 flats and medium-sized, so-called town houses subdivided into between 4 and 20 flats, while any property composed of more than 20 apartments was designated "barracks housing".<sup>(54)</sup> The word "barracks" in reference to house construction

(*casernenartige Gebäude*, or *Häuser des Casernen-Systems*) had been introduced in the 1860s by German philanthropists concerned with building regulation and housing reform. (55) The housing congress resolution from 1910 made no reference to more widely-used, but vaguer terms like tenement house (*Miethaus*) or even rental barracks (*Mietskasernen*) to avoid possible misinterpretations. It can be surmised that a property designed during the later industrial era ("Hochgründerzeit") to provide more than 20 apartments was put up principally as tenant holdings, but this does not infer that a property qualified as tenement only if it contained in excess of 20 separate dwellings. Medium-sized housing composed of under 20 but more than 3 apartments - which had evolved during earlier phases of large-scale urban growth throughout much of mainland Europe - apart from remaining the standard housing type in most smaller, provincial, towns and expanding suburban districts of the great continental cities, continued to represent tenement housing designed for wealthy occupants and consisting of large but relatively fewer apartments. (56)

No definitive line could be drawn between *Miethaus* and *Mietskasernen*; representatives of the 1910 international housing congress evidently chose to decide on a tangible, statistical definition.

More specific delineations of tenement houses, barracks or otherwise, may be based on building configurations, architectural plans or in accordance with considerations of functional and social structure. (57) The statistical definition would apparently provide a firm base for introducing the tenement as the dominant building form in Warsaw, apart from many major European cities developing in the 19th century. Moreover, in view of the endless variety



of tenement house forms adapted to widely differing building plot patterns, interrelated functions and frequent subdivisions of existing apartments, as well as later reconstructions or building extensions accompanied by changes in social composition, this categorisation of house type in relation to numbers of apartments recorded at a certain time may represent the only definition to be universally applicable.

"It emerges that the mean number of apartments per property in" (Greater) "Warsaw is 22.18. Even this most generalised mean indicates that barracks housing predominates in the city."<sup>(58)</sup>

The overall figure of 221,403 apartments in Greater Warsaw (cf. above table based on Table II in the annex to Part I) makes no allowance for vacant flats; a question dealt with in the apartments statistics,<sup>(59)</sup> which in any case is not immediately relevant to an investigation concerned primarily with examining the urban landscape as it had been evolving in relation to building forms. A major discrepancy in need of clarification existed between properties recorded as inhabited and those which were uninhabited but contained space for human habitation; i.e. between inhabited and potentially habitable properties. It has been seen that 9956 of the 10,136 developed properties recorded in 1919 for Greater Warsaw were inhabited. However, in view of wartime depopulation it could not be assumed that this figure accurately reflected the true number of properties designed to fulfil some kind of residential function.<sup>(60)</sup> 62 developed properties were not accounted for in the survey, because they had been inaccessible to the census collectors; most of these

Table 3 :

Developed property groups according to numbers of apartments

Region and district	Total no. of developed properties	Unknown	Developed properties consisting of :				Total number of apart- ments /flats/	Mean number of flats per habitable property
			NO FLATS	SMALL HOUSE 1-3 flats	MEDIUM HOUSES 4-20 flats	BARRACKS -HOUSING over 20 flats		
MID-TOWN I-XIII	5415	42	60	431	1616	3266c	167,239	31.59
PRAGA XIV-XV	947	10	9	133	426	369	20,934	21.98
SUBURBS XVI-XXVI	4057 /3774/	26	10	1456	2092	473	37,799 /33,170/	9.40 /8.87/
<hr/>								
GREATER WARSAW	10419 /10136/	78 /62/	79 /94/	2020 /2009/	4134 /3942/	4018 /4029/	226,572 /221.403/	22.08 /22.18/
<hr/>								
MID-TOWN								
IV	231	1	1	11	17	201	12,108	52.87
VII	501	6	3	33	126	333	18,502	37.61
V	413	-	5	45	83	280	15,296	37.49
VIII	428	5	2	28	75	318	14,962	35.45
VI	429	1	6	60	90	272	14,775	35.01
III	566	3	9	55	163	336	17,495	31.58
XI	474	6	5	48	113	302	13,694	29.58
XIII	473	4	4	38	136	291	13,470	28.97
IX	296	3	6	37	95	155	8,102	28.23
II	411	1	5	12	184	209	10,398	25.67
I	416	6	6	21	196	187	10,348	25.61
X	465	2	3	32	183	245	11,362	24.70
XII	312	4	5	11	155	137	7,363	24.30
<hr/>								
PRAGA								
XIV	476	3	8	48	212	205	10,915	23.48
XV	471	7	1	85	214	164	9,479	20.47
<hr/>								
SUBURBS*								
XVI	418	15	2	124	163	114	6,429	16.03
XXIII	413	-	-	136	162	115	6,322	15.31
XXII	403	1	-	102	204	96	5,660	14.07
XIX	150	-	1	32	88	29	1,831	12.29
XX	311	-	2	103	165	41	2,854	9.24
XXIV	442	2	-	137	276	27	3,541	8.05
XXV	474	3	1	141	316	13	3,380	7.19
XVIII	244	-	2	58	176	8	1,750	7.23
XVII	337	3	-	167	162	5	1,817	5.44
XXI	136	-	-	89	38	9	700	5.14
XXVI	729	2	2	367	342	16	3,515	4.85

\* Data for suburban districts XVI - XXVI taken from the 1916 property survey /cf. S.Szymkiewicz. "Wielka Inkorporacja" in Kronika Warszawy, 1930 and "Rocznik Wydziału statystycznego Magistratu M.St. Warszawy, Rok 1916".

belonged to the state authorities and were located in the inner urban districts (42 in the Mid-Town and 10 in Praga).<sup>(61)</sup> Apart from this unknown factor, a further 94 developed properties were discovered to possess no form of habitable accommodation, leaving a revised total of 9980 properties containing apartment space of some kind.<sup>(62)</sup> The terminological nuance between habitable and inhabited properties thereby allowed for the 24 properties which were uninhabited in 1919, but had had included in their building plans habitational space. The calculation of mean apartment numbers per property was thus derived from dividing the sum total of habitable apartments with the number of properties in which some kind of flat accommodation existed, regardless of whether or not the property in question was inhabited in 1919 or served a predominantly residential function:

Confirmed total of habitable apartments	
in Greater Warsaw	221,403
	= 22.18
Total number of developed properties	10,136 - 62 - 94
unknown factor -	
developed properties with no flats	

The so-called "barracks quality" (*koszarowość*)<sup>(63)</sup> of Warsaw's urban profile is already established by this mean figure of more than 22 apartments per habitable property, even though this is a generalised statistic hiding enormous and inevitable regional contrasts. In the tabular classification of developed property types (cf. Table 3), mean property sizes based on numbers of apartments have been calculated according to municipal district in descending order. Before considering these inter-arrondissement

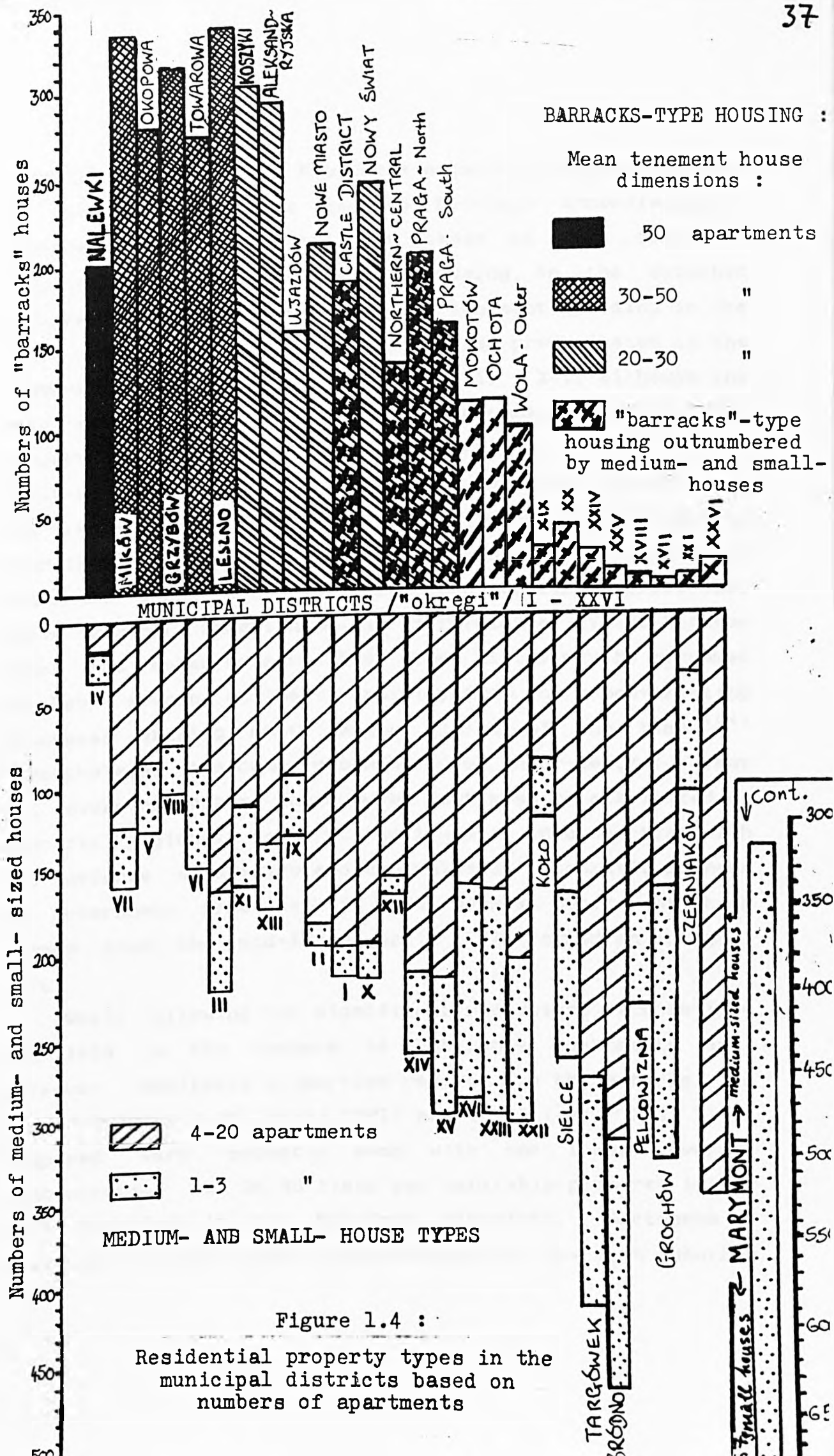
variations, it is to be expected that the introduction of a considerably smaller component to the urban analysis in the form of apartments, as compared to developed or inhabited properties, enables a definitive statistical expression of the effective urban divide that existed between inner-central Warsaw and its suburban periphery (cf. Fig. 1.4 and cartogram 2).

The 13 Mid-Town police districts, covering a mere 20.09% of the overall administrative area, possessed 167,839 or 75.81% of the entire number of apartments with the rightbank complement of the inner city, Praga, representing 8.41% of the land, and 20,934 (9.21%) flats. In the suburbs, which accounted for 71.50% of Greater Warsaw's spatial area, but only 33,170 apartments; i.e. 14.98% of the total number (in 1919), the situation was almost entirely inverted.

It would be hardly realistic to assess building densities in terms of numbers of apartments per hectare; any reference to apartments statistics in an analysis of the city's physical structure must be interpreted through the property or housing unit of which every apartment inevitably forms an integral part. The broad categorising of housing types has been based on a calculation of the mean number of individual dwelling units recorded for habitable properties in the Greater Warsaw area, its urban regions and municipal-police districts (I - XXVI).

Using the same statistical formula helps to determine the degree and intensity of property building (as basically synonymous with urban development) in the inner-urban and outer-suburban districts.

If the suburbs accounted for a substantial 37% of Warsaw's 10,136 developed properties, the mean recording of

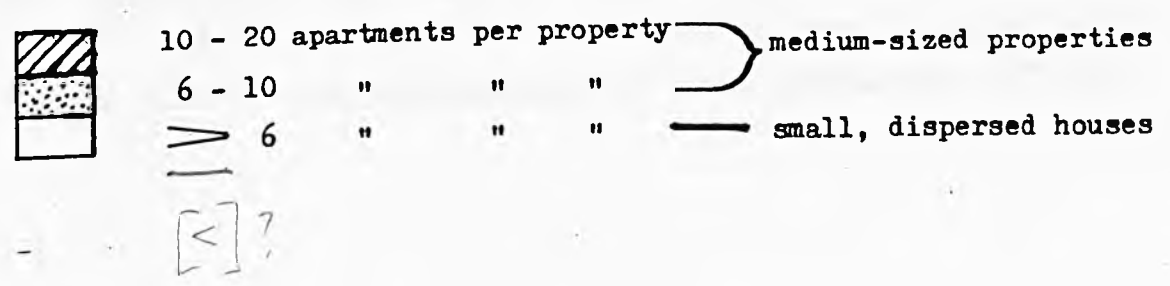
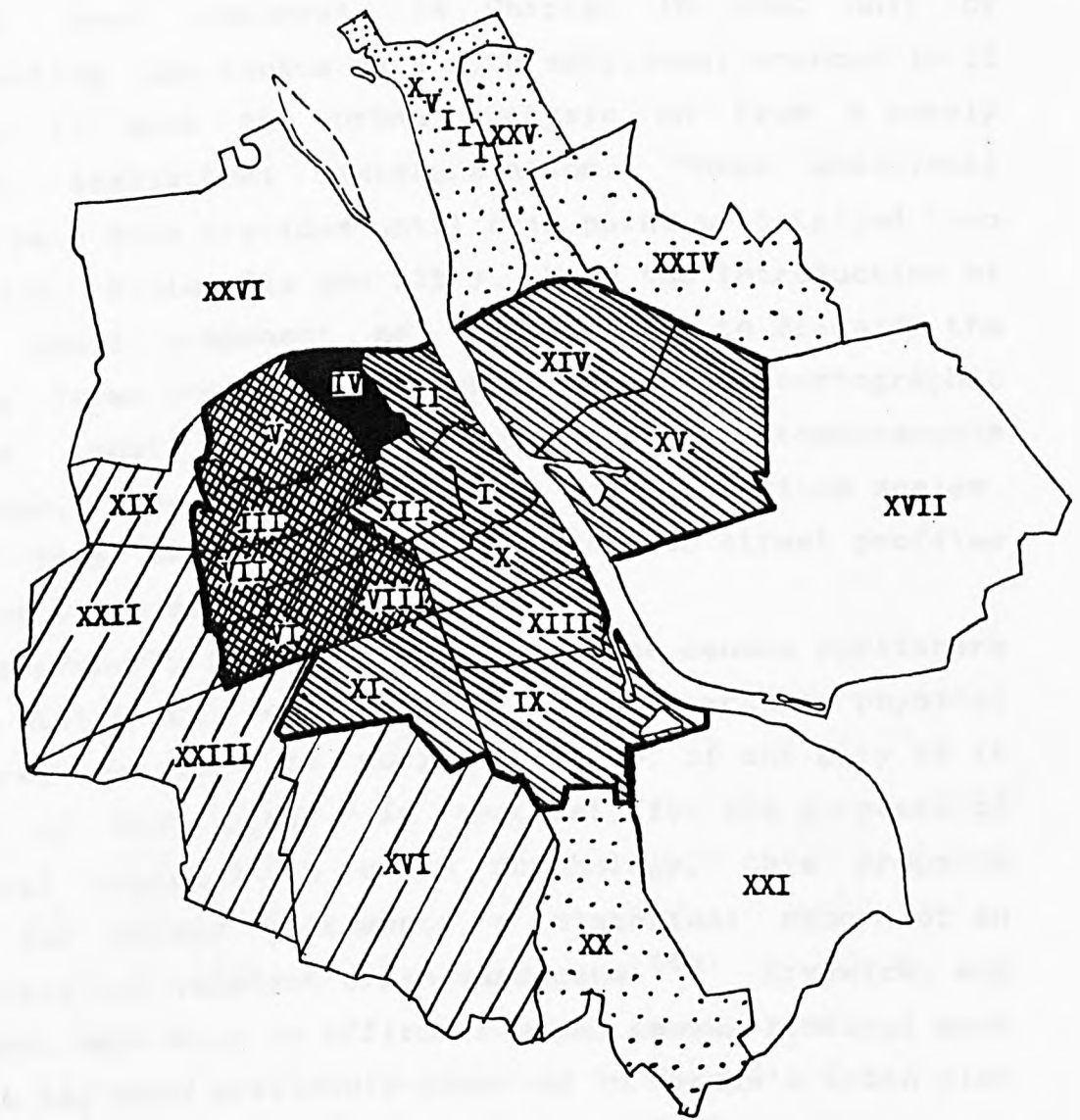
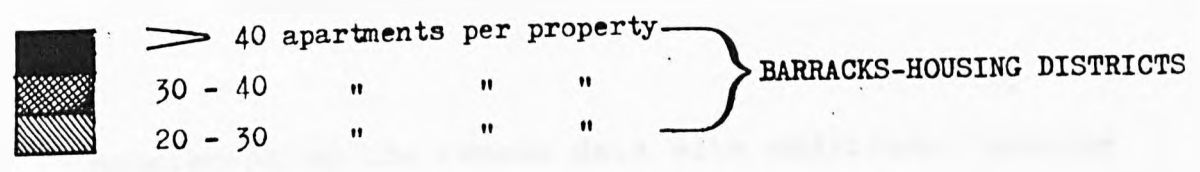


under 10 apartments per habitable suburban property compared to over 30 apartments in the Mid-Town *arrondissements* verifies the hypothetical landscapes of low, dispersed single-family and medium-type housing in the suburban periphery and compact, multi-storey tenement building in the inner city. Barracks-type housing also predominated in the inner-rightbank districts (*okręgi* XIV - XV), although the mean recording of just under 22 apartments per habitable property suggests Praga was not nearly so intensively built-up as the 13 Mid-Town *arrondissements*. Breaking up the pre-1916 urban area and its newly-incorporated outskirts into the 26 municipal districts simultaneously enriches this simulated urban patchwork with more localised variations, while further underlining an irrefutable divide between inner and outer Warsaw. This urban divide may be presumed to have arisen at least partially from the urban-creating processes shaping most larger cities of the time.<sup>(64)</sup> Nevertheless, the dense urban build of inner-central Warsaw and severe neglect of the suburbs must also be attributed to specific regional factors, particularly in connection with the defence strategies and centralised, autocratic methods of government practised in the Russian Empire, of which Warsaw from the mid-1860s until 1915 formed an integral part.

While allowing for significant reductions between 1916 and 1919 in the numbers of habitable apartments and, moreover, habitable properties recorded in the suburbs, the range between 4.85 (*okrąg* XXVI) and 16.03 (*okrąg* XVI) flats compared very modestly even with the lowest average concentration of 24.30 flats per habitable property (*okrąg* XII) recorded in the Mid-Town districts. Cartogram 2 presents a clear visual interpretation of how each suburban

district fell short of the more-than-20-apartments-per-property threshold and every inner urban district, including North and South Praga, were manifested to be so-called barracks-housing districts (*dzielnice kozzarowe*). (65) This mapping of the statistical information provided in Table II of the property survey results represents a credible, if extremely generalised, outline of the varying levels of property development in 1919 according to local administrative areas. It should prove possible at a later stage to compose a considerably more revealing cartogram based on supplementary statistical data published as an appendix in the second volume of the census results, mapping the mean number of apartments per habitable property calculated according to street block as a far more desirable unit of urban analysis than the territorially expansive and largely amorphous municipal districts. For the moment, however, it is important to establish broad patterns in the urban landscape in order to distinguish those parts of Warsaw where intensive property development - as synonymous with urbanisation - had taken place until the 1914-'18 war, isolating them from those regions where building was still in its early stages, had been severely impeded, or for a variety of reasons was completely absent.

Cartogram II : Mean number of apartments per developed property





Chapter 2B

THE WARSAW TENEMENT-HOUSE-CITY

Supplementing the census data with additional sources

It has been observed in Chapter 1B that only by supplementing the census data with additional sources is it possible to move the urban analysis on from a purely abstract statistical interpretation. These additional sources have been provided until this point by detailed town plans (cf. Plates IIa and IIb ). With the introduction of such a small component as the apartment to classify the building forms comprising the urban landscape, cartographic evidence must be supplemented by contemporaneous photographic documentation of the city at various scales, ranging from aerial or bird's-eye views to street profiles and eventually individual buildings.

The property count was treated by the census publishers as a statistical confirmation of the actual physical structure, as well as social make-up, of the city as it existed at this time. In contrast, for the purposes of historical analysis in urban morphology, this property census for Warsaw represents a historical record of an effectively non-existent urban landscape.<sup>(66)</sup> Krzywicki and Strzelecki were able to affirm from the census findings much of what had been previously observed in Warsaw's urban plan and building pattern,<sup>(67)</sup> or formulated interpretations of human experience associated with life in this particular city.<sup>(68)</sup> No great need was expressed to refer extensively to town plans (beyond mapping the data collected);<sup>(69)</sup> no

photographic evidence was presented in the census publication. Researching some seven decades later Warsaw's urban landscape as it took shape during the late 19th.- and early-20th. centuries demands excessive reference to cartographic and photographic sources. Although a significant, if small, proportion of property development dating from this era escaped destruction during the 1939-'45 war and has not been subjected to alterations in connection with postwar phases of reconstruction, it is detailed maps and photographs of the pre-holocaust city which provide the only empirical base of sufficient scope to an investigation of this kind. (70)

#### Medium-tenement and barracks-housing in the Mid-Town

Correlating the apartment statistics with habitable properties gives a generalised indication of the extent to which the building plot approximately typical to each police district had been built up. This is a purely statistical correlation failing to take into account variations in building plot dimensions, and one that ignores open green spaces, military terrain, railroads, railway yards, public squares, streets and even vacant building plots constituting no less an integral part of the urban landscape than developed property.

It has been proposed in Chapter 1B that the built-up area of inner-central Warsaw was characterised by a relatively consistent density of more than four developed properties per hectare, (cf. Fig. 1.3). This conjecture was arrived at by taking the highest recorded density of

developed properties - available only in relation to overall spatial area - in the eighth municipal district of Grzybów and applying that density calculation to the entire Mid-Town built-up area, on the grounds that densities recorded for most of the other 13 inner urban *arrondissements* had been distorted by expansive tracts of undeveloped land largely not present in the test district. Referring to 1:2500-scale city plans from before 1939, this hypothetical building density was compared with real, groundplan densities of developed properties in part of Grzybów district.

Although building plot densities in relation to the built-up area of Warsaw's Mid-Town might be proven to have been comparatively consistent, the extent to which property had undergone development and had been subdivided into apartments varied greatly. A significant fluctuation was recorded within the 13 inner-central *arrondissements* of between 24.30 (in *okrag* XII) and 52.87 (in *okrag* IV) flats per average habitable property. Only differences in property groundplans and their constituent frontal/outbuilding components are represented on detailed town maps; fluctuations in building plan and height must be drawn from photographic evidence or archival sources, as well as from empirical research of buildings predating 1914/'19 which have survived to the present day. Apart from building heights, constructional materials and communal facilities, (cf. Part III) it will be necessary to consider associations between a property's frequently multifunctional structure and its architectural plan, and where applicable the sociological characteristics of its inhabitants (cf. Chapters 5, 6 and 7 in Part II, apart from individual tenement case studies in Part III).

It has become clear that barracks-housing accounted for

44

the greatest proportion of apartments in the inner urban districts - including also Praga lying beyond the Mid-Town - but the relation of mean apartment numbers per property was highly inconsistent. In the older parts of Mid-Town Warsaw, situated in *arrondissements* I and XII, this predominance of barracks houses was not absolute; although a greater proportion of the overall number of apartments was located in properties containing over 20 flats, the barracks-type habitable property was actually outnumbered by medium-sized housing. The former mediaeval quarters and their immediate environs were composed of distinctively smaller building plots and a more traditional urban landscape than elsewhere in the mid-town. These quarters represented Warsaw's comparatively historic, pre-industrial core with its rundown, picturesque 17th.- and 18th. century burgher houses (often raised on mediaeval lower storeys), magnatial palaces, noble residences and sacral architecture. Above all there were the urban-architectural legacies of two early-industrial development phases dating from the late-18th. century (interrupted by the Polish-Lithuanian Republic's disintegration) and the home rule era (1815-'31) of Russian dominion, characterised by some administrative and church edifices, but especially by town houses designed in the so-called neo-Classical style and raised at ever-increasing distances from the mediaeval nucleus in regions covered in the 1919 count by *arrondissements* II, III, IV, VII, VIII, X, and XIII.<sup>(71)</sup> It has been suggested already that tenement housing may not be presumed to have consisted exclusively of properties containing more than 20 apartments. Medium-sized housing in the Mid-Town districts would have included pre- or early-industrial properties or later, "infill" property developments confined to smaller

building plots, as well as buildings partially taken up by commercial or administrative office space and/or larger apartments inhabited by more affluent citizens. (72) [ci]

#### Nalewki and Grzybów tenement districts

Recording a mean proportion of almost 53 apartments per habitable property, the northern-inner *arrondissement* of Nalewki (IV) very prominently stood out as possessing the most consistently barracks-type housing in Warsaw. More than 20 flats were discovered in 201, or 87.01% of the total number of developed - including uninhabited - properties, of which as many as 18 barracks tenements contained over 100 flats. The Nalewki in many respects emerges as Warsaw's quintessential tenement district; even more so than Grzybów (VIII) where the greatest density of developed property per hectare had been registered (cf. Chapter 1B). With just over 35 flats per average habitable property, and virtually 75% of all its developed - including uninhabited - properties consisting of more than 20 flats, Grzybów itself had evidently developed before 1914/'19 into a barracks-house district.

Cartographic sources reveal that property parcellisation was in places far less compact in the Nalewki (especially in the region of Nalewki, Franciszkańska and Świętojerska streets), than in Grzybów (cf. Plate IIa). However, a fully satisfactory clarification on the considerable contrast in apartment concentrations between these two inner urban districts must be sought in differing flat sizes, land-use patterns and ultimately in varying

building heights, although in the case of the latter distinction, properties in the Nalewki very rarely exceeded four storeys, while Grzybów paradoxically possessed a significant proportion of 5- and even 6-storey buildings (cf. "Building Heights" table in the statistical annex to Part III). Although the plot structure of Grzybów did noticeably differ from that of the Nalewki, groundplan building patterns in both commissariats were comparatively analogous. Consequently, it could be conjectured that the causes behind contrasts in apartment concentrations per property had arisen from differences in the leading economic activities and main social characteristics which existed between these two distinctly tenement districts.

In fact, the Nalewki was characteristically a district of wholesale retail, small-scale trading, small businesses and workshops specialising in handicraft manufacturing. Richly-stocked shops displaying wares made in local workshops, using materials brought in from the great textile mills of Łódź and Żyrardów, supplied the city, as well as a sizeable part of the Russian market, with clothing and footwear. The artisans, craftsmen and shopkeepers lived closeby, above, at the back of or even in their workplaces, while merchants and innumerable street vendors found temporary accommodation in guest houses, with family and friends, or returned at night to neighbouring districts (cf. "Tenement Belt Districts" : T-3/IV in Chapter 6).<sup>(73)</sup>

Grzybów possessed larger factories and railway engineering plants behind the Vienna and Kalisz stations, numerous banking houses and commercial offices on and in the vicinity of Marszałkowska Street, as well as one of Warsaw's largest bazaars off Grzybowski Square, with many commission and brokers' shops on nearby Próżna and Grzybowska streets.

The groundfloor, first-storey and even basements of very many properties accommodated office or shop space, while the upper storeys were subdivided into apartments, frequently inhabited by the wealthy and consisting of 3, 4 or 5 rooms (cf Table 6b in Chapter 4). Accommodating office space and larger flats inevitably reduced the overall number of apartments recorded in what were nevertheless sizeable and compactly-developed properties. Grzybów's sociological structure ranged from industrial workers, street traders and shopkeepers to white-collar employees and property owner (cf. Tenement Belt District 7 in Chapter 6).<sup>(74)</sup>

#### Small, or single-family, housing

Krzywicki and Strzelecki observed that accommodation provided on factory premises for several families or a single caretaker was recorded in the 1919 survey as single-, 2- or 3-apartment properties (e.g. 28 in Grzybów, compared with only 11 in Nalewki). In the more industrialised Towarowa (IV), Leszno (III) and Okopowa (V) *arrondissements*, greater numbers of what the 1910 Vienna Housing Conference had designated small houses were counted, as well as in relatively more affluent districts belonging to IX (Ujazdów), XI (Koszyki) and XIII (Aleksandryjska) where resident caretakers were also employed in numerous hospitals and state-public buildings.<sup>(75)</sup> In these latter, southern Mid-Town districts a notable number of plutocratic and aristocratic villa residences arising from the 1840s, to be partially engulfed by later tenement construction, would have been recorded in 1919 as small housing; that is unless

servants were accommodated in or at the back of such premises(76).

Beyond the Mid-Town, in terms of small housing Praga, as a region of some considerable factory development, bore close similarities to the western Mid-Town districts. However, the much greater proportion of 1-, 2- or 3-apartment properties in the suburbs could only be accounted by the farm or village-type, small wooden cottages still abounding beyond the pre-1916 city limits.

Variations in urban build and apartment subdivision  
within the Mid-Town tenement belt

In cartogram II the western and north-western inner urban districts of Towarowa (IV), Mirów (VII), Leszno (III) and Okopowa (V), together with Grzybów (VIII) and Nalewki (IV), stand out from the remaining Mid-Town *arrondissements* as being characterised by particularly densely subdivided tenement holdings exceeding 30 apartments per developed property. Urban growth prior to the 1860s, following the dominant North-South orientation to Warsaw's historic spatial expansion parallel to the Vistula, had advanced beyond the Castle (I) and New Town (II) districts into the post-mediaeval North-Central (XII) and southern-central, New World (X) *arrondissements*. A broad distinction may be drawn between these four municipal divisions and those lying south of the East-West thoroughfare of Jerusalem Avenue (Aleje Jerozolimskie),<sup>(77)</sup> consisting of XIII (Aleksandryjska), XI (Koszyki) and IX (Ujazdów). These three central Mid-Town districts had taken shape somewhat later than the



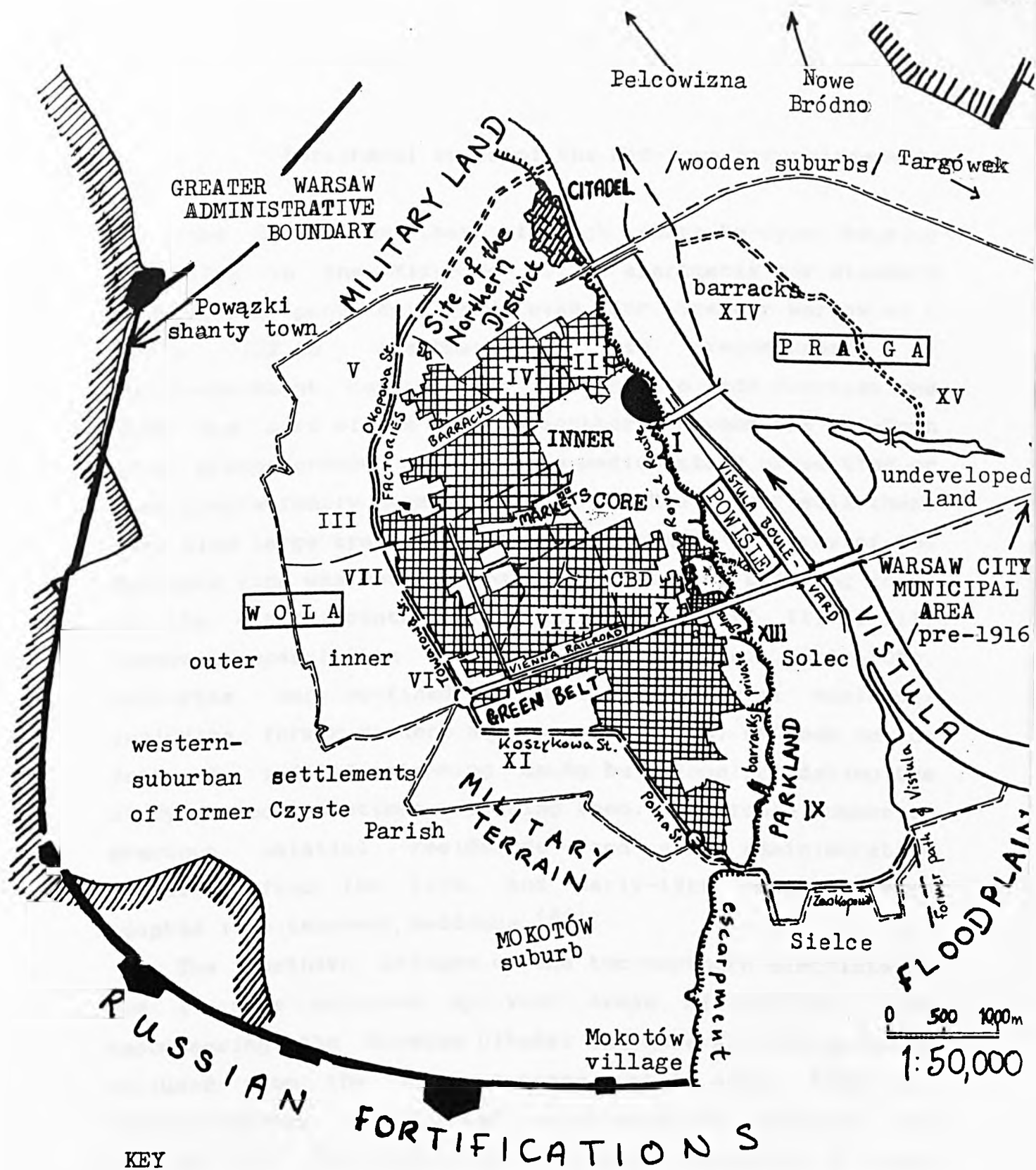
north-western and western, as well as the central areas.<sup>(78)</sup> Apart from some extensive military grounds, parkland, state-public building complexes and the aforementioned villas, southern Mid-Town Warsaw to a large extent was composed of comparatively regular tenement development raised in a number of stages up to the outbreak of World War One from the early-1860s (Aleksandryjska), 1870s (Koszyki) and 1890s (Ujazdów) on previously agrarian land.

Comparing the mean number of apartments per property with the degree of a given district's barracks-housing quality (or *koszarowość*), expressed as a percentage of all developed properties), suggests very significant variations existed in the nature of tenement building and flat subdivision. Okopowa (V), Mirów (VII) and particularly Towarowa (VI) and Leszno (III) *arrondissements*, while possessing in excess of 30 apartments per mean inhabitable property, prove to have contained proportionally fewer barracks-type houses than districts VIII (Grzybów), and even XI (Koszyki) and XIII (Aleksandryjska), as well as IV (Nalewki). It will become clear that the western regions of the inner city represented by *arrondissements* VI, VII, III and V were inhabited by a to a large degree by a proletarian or artisanal populace, accommodated in small, subdivided and frequently single-room apartments, which was engaged in mainly secondary and tertiary manufacturing (metal crafts, timber and paper, food processing), as well as small-scale trading and retail activities. The urban structure, comprising numerous small or medium-sized factories and partially-developed building plots, as well as closed-courtyard, multi-apartment housing blocks of the barracks kind,<sup>(79)</sup> was more varied than that of the relatively consistent tenement build of the Nalewki and

Grzybów. Compact and relatively consistent tenement buildings, however, constituted extensive parts of Koszyki (XI), Aleksandryjska (XIII) and Ujazdów (IX) where, apart from a far smaller industrial workforce (mainly polygraphic, chemical and more food processing)<sup>(80)</sup>, together with domestic servants, housed in backrooms, basement flats or upper floors and attics, wealthy bankers, industrialists, lawyers, doctors, some Russian civil servants, remnants of the Polish aristocracy and largely polonised Jewish plutocrats rented spacious, well-fitted apartments, or even possessed their own villas.

In spite of the schematic characteristics of this breakdown of the Mid-Town internal structure imposed by the administrative units, a very general picture, supported by cartographic evidence, is beginning to take shape of an inner belt of almost exclusively tenement housing which formed during the 1864-1914 study period. This tenement zone accounted for virtually the entire developed areas of Grzybów (VIII) and Nalewki (IV) together with extensive parts of III, V, VI, VII, IX, XI and XIII *arrondissements*, lying between the historic core with its older districts (I, II, X and XII) and the peripheral northern (Citadel), western (Wola), southern (green area) and riverside (Powiśle) fringes of the Mid-Town (cf. Fig. 1.5).

This inner city of tenement blocks; a tenement belt, represents the area to be placed under intensive investigation.



KEY




-  Tenement belt
-  former customs wall /1770-1818-1870/
-  escarpment

Figure 1.5 :  
 Zone of consistent tenement house development  
 in relation to  
 city centre/CBD, inner-peripheral districts and suburbs /to 1914

Peripheral areas of the Mid-Town *arrondissements*

It has been seen that although barracks-type housing prevailed in the Mid-Town (31.59 apartments per standard inhabitable property), and even for Greater Warsaw as a whole (22.18 apartments), this preponderance of multi-apartment housing was subject to wide fluctuations from one part of the city to another. Beyond the Mid-Town this preponderance gave way to medium-sized properties or even single-family houses. Within the Mid-Town itself there were also large areas where compact tenement property of the barracks kind was not the most representative building form. In the older, central-northern districts (I, II, X, XII) tenement speculation in the late-19th. and early-20th. centuries was confined to small territorial enclaves, including former gardens as yet undeveloped, or took on the form of "infill" planning among buildings pre-dating the study period, sometimes replacing them. A notable number of previous palatial residences and even administrative buildings from the 18th. and early-19th. centuries were adapted into tenement holdings. (81)

The northern fringes of the two northern districts II and IV were occupied by vast areas of military land encompassing the Russian Citadel and were all but entirely excluded from the urban process until after 1918 (cf. Soliborz-Fawory, "eradicated inner-northern district" in Chapter 7). The industrial-proletarian character of large parts of the western districts (III, V, VI, VII) was not wholly conducive to compact and consistent tenement construction; especially in those parts of Wola suburb which had been incorporated into the city as late as 1900 and 1908. An analogous situation existed in the extensive

riverside quarters, lying below the escarpment, known as Powiśle, where industrialisation in the early-19th. century and constant threat until the early-20th. century of flooding had seriously undermined coherent development, reflected in a semi-regulated street plan and chaotic plot parcellisation. The blatantly slumlike character and social deprivation of Powiśle was a favourite theme of many socially-aware novelists and journalists of the time.<sup>(82)</sup> The inevitable contrasts in the urban fabric and social structure arising between the so-called Main City/Town (*główne miasto*) and Lower City/Town (*dolne miasto*) have thus far been concealed in the property statistics, because the riverside area did not constitute an administrative district in itself, but formed parts of *arrondissements* I, X, XIII, and IX. Along the southern fringes of southern district IX and XI, apart from the extensive army barracks and military terrain known as the Mokotów Fields, a green belt had been preserved by the imperial Russian authorities and City Council where a number of public building complexes had been put up and private investment was strictly forbidden.

Such quarters undergoing delayed or not entirely related urban development and territorial expanses isolated from the urban process need to be dealt with separately or excluded altogether from the investigation (cf. Chapters 7 and 8 in Part II).

## Praga

Although medium-sized houses (426) outnumbered barrack-houses (369), the mean number of flats per inhabitable property exceeded 20 in both the 14th and 15th *arrondissements*. Long separated from left-bank Warsaw<sup>(83)</sup> and subjected to frequent flooding from the river, Praga, like Powiśle and Wola, developed significantly later than the Main City and attracted considerable, if delayed, industrial investment (in particular steel, mineral and chemical industries). The specific urban and social qualities of the right-bank districts were all the more emphasised as a result of its favourable treatment by the tsarist authorities as a semi-new town on the Russian side of the Vistula, partially regulated in the 1860s when the main railway lines from St. Petersburg and Moscow were laid. Extensive administrative expansion in 1888 provided Praga, in stark contrast to the left-bank city, with plenteous open land for spatial growth. The "Russian" character of Praga is often alluded to in works of various kinds relating to this part of Warsaw.<sup>(84)</sup>

## Tenement housing in the left-bank suburbs

The suburban *arrondissements* of Mokotów (XVI), Ochota (XXIII), and Wola (XXII), where around one quarter of the inhabitable properties were composed of more than 20 apartments and averages of between 14.08 and 16.03 flats were recorded per property, clearly stand out from the other suburban territories incorporated into Warsaw in 1916. Such

multi-apartment housing arose in the suburbs to a large degree, but by no means exclusively, after 1911 when it became possible to construct private property from permanent materials beyond the contemporary city limits on the former fortification belt. The final years of peace preceding the First World War witnessed remarkable building activity; more than 300 tenement properties counted in the southern and western suburbs immediately adjacent to the Mid-Town alone were apparently raised largely during this period,<sup>(85)</sup> (compare, nevertheless, with conclusions based on press releases from the 1890s in "Mokotów outer-tenement district" in Chapter 8).

Elsewhere in the suburbs the medium-sized house completely outranked larger properties. Sielce (XX) represented a southerly extension of Powiśle and an analagous lower-town suburb to the upper-town suburb of Mokotów. Koło (XIX) was somewhat cut off from the main spatial orientation in urban expansion by the cemeteries forming the peripheral territory of Okopowa (V) and Leszno (III) Mid-Town *arrondissements*. Targówek (XXIV), Bródno (XXV) and Pelcowizna (XVIII) portrayed similar statistical traits in the mean recordings of between 7.19 and 8.05 apartments per (overwhelmingly groundfloor or single-storey, wooden) property. The actual predominance of small, single-, 2- or 3-apartment housing in Grochów (XVII), Czerniaków (XXI) and Marymont (XXVI) serves to underline their overwhelmingly rural character even in relation to the other suburban regions. It should be stressed that within Marymont had arisen prior to 1914, in the shadow of the Citadel, several populous shanty towns,<sup>(86)</sup> explaining the exceptionally large figure of 725 developed properties, including 342 of the medium type.

The tenement house in Warsaw's urban landscape

The results of the 1919 property census have proven Warsaw to have been a city in which virtually all developed properties (i.e. in excess of 98%) fulfilled some kind of residential function. Of the 10,419 built-up and 10,262 inhabited, including potentially habitable, unoccupied properties recorded in 1916, 4018 were classified as barracks housing on the grounds they contained more than 20 habitable apartments; 3266, or 79.50% of these "barracks" houses were located in the 13 *arrondissements* comprising Warsaw's left- or West-bank, so-called Mid-Town. Dividing the number of habitable apartments by the sum total of habitable properties, allowing for 94 developed properties the 1919 census failed to investigate, thus establishing a mean calculation of just over 22 apartments per developed property, defined the so-called barracks quality (*kobzarowość*) of Warsaw, even including its largely underdeveloped suburbs.

The size of property, assessed in relation to apartment concentrations, varied greatly and would seem to provide the most tangible statistically-defined contrasts between the inner-Mid-Town districts and the suburbs. Significant fluctuations in building density and flat subdivision within the so-called tenement districts (*dzielnice kobzarowe*) of the inner city are also evident. The inner urban, East Bank quarters of Praga, averaging almost exactly 22 apartments per developed, habitable property, would seem to have represented an intermediate stage in urban growth between the Mid-Town's compact physical structure (24.30 - 52-87 flats per property) and the recently-incorporated suburban districts (from 16.03 dropping to as little as 4.85 flats



per property). As such, Praga's physical form and in all likelihood its social structure may be expected to have manifested certain characteristics common to both the Mid-Town and the suburban zone.

The medium-sized house, composed of between 4 and 20 apartments, apart from frequently accounting for more affluent tenement housing or mixed-residential buildings in the city centre, incorporating private apartments and office-retail space, has been interpreted as an intermediate building form, arising during earlier phases of urban development to undergo extension or replacement during largescale urban expansion. In all but two of the Mid-Town *arrondissements*, covering the larger part of Warsaw's historic core, the middle-sized, or merchant's house was outnumbered substantially by barracks housing properties; in Praga it retained a slight majority over the latter, while in the suburbs it represented the largest single group of house types based on apartment subdivisions by a very considerable margin.

As far as an urban physical fabric composed of tenement buildings (incorporating multifarious, commercial, retail, industrial and even state-public administrative functions, apart from providing residential accommodation) had evolved in Warsaw to echo the *Mietskasernenstädte* of Berlin and Vienna from the same period, this urban landscape of tenement houses had taken shape within the 13 administrative districts of the inner city's West Bank. Nevertheless, tenement housing, including a substantial number of "medium-sized" houses, containing less than 20 flats, as well as the "barracks" houses, did not prevail in all parts of the 13 Mid-Town *arrondissements*. Furthermore, tenement properties, consisting of multi-storey frontal buildings

with interconnecting outbuildings enclosing single or more courtyards, had also taken shape in Praga and were even beginning to appear in parts of the suburban zone (especially in Mokotów, Ochota, and outer Wola). Zones of predominant and partial tenement development, as well as spatial areas completely devoid of tenement buildings, are apparent within the metropolitan area of Greater Warsaw, but their delineation is greatly confounded by the non-functional character of the administrative districts upon which all statistical data has been presented thus far. Assuming social structure related to Warsaw's physical form as it had taken shape during the late-19th. century and early-20th. century, residential patterns may be expected to shed additional light on the urban landscape.

Chapter 3

POPULATION DISTRIBUTION

The residential pattern in 1919

Recording the number of inhabitants residing in Warsaw and comparing demographic patterns with the degree of urban development in various districts and regions of the city were in themselves fundamental aspects of the 1919 census. Population, however, is of relative rather than absolute importance to a property count, in which respect the Warsaw census by interpreting demographic statistics according to urban spatial area, developed properties, building components and individual apartments was no exception. (87)

Although the 1919 results might prove to be of comparative use for verifying other sources of demographic data, there was no question of the property and apartments survey replacing a population census which was to be conducted for the entire Polish state on 1st. October 1921. (88)

The census commission's properties and apartments questionnaires were intended to record permanently-registered inhabitants rather than the overall urban populace; little, if indeed any, consideration was apparently taken of temporary or unregistered citizens, including the homeless:

"In order to obtain a connection between dwelling and population the apartments census did not count the number of people present on the given day, but of every permanently residing occupant in each particular apartment. (...) Our figures are summary

and do not give a picture of social structure."<sup>(89)</sup>

Apart from the afore-mentioned urban depopulation caused by the long war years, another explanation behind the significant discrepancy of nearly 200,000 people between the 1913 estimation and 1919 recording of Warsaw's population must be sought in the 1919 property count's failure to account for unregistered residents and the homeless, as well as suburban and even inner urban inhabitants not in the city at the time. In the national census of 1921 the population of Greater Warsaw was 909,700; a figure, as will be seen, well short of that estimated for the same area in 1913, some 3 years prior to the suburban incorporation (cf. Table 4), but substantially more than the 846,322 inhabitants recorded in 1919. While bearing in mind the 1921 census would have counted unregistered inhabitants, suggesting Warsaw's urban revival in an independent Poland had yet to begin three years after the conclusion of the major international hostilities,<sup>(90)</sup> referring to demographic data from 1921, no matter how complete, is undesirable for the purposes of appraising the social structure as it had evolved until 1914. Residents' and police registers, the municipal and meagre rural parish records predating the Great War, although often incomplete and insubstantial, need to be examined to help establish a more reliable picture of residential patterns as they had evolved until 1914, before they had been reversed by the ensuing socio-political transformations which had a particularly dramatic effect on this part of Europe.<sup>(91)</sup>

It should not be assumed, however, that only the actual property and apartments statistics from the 1919 census are relevant to an analysis of Warsaw's industrial

age urban landscape, on the grounds that only these statistics reflect to a very large degree the situation, particularly in the inner city, prior to the outbreak of war (as opposed to the demographic data). No population census had been carried out for the city since 1897; demographic sources for the intervening 22 years are provided exclusively by registers of permanent and temporary inhabitants compiled by the city council and police department. Moreover, this census was the first to embrace both the pre-1916 City of Warsaw (*Miasto Warszawy*, or *gorod Varshavy*) and the suburban periphery. As such, the residential pattern portrayed in the 1919 property count represents an equally important point of reference for demographic analysis:

"Although our overall estimation of the population may be lower than the true population, the relative and comparative results retain their relevance, providing a picture which in all likelihood is not far removed from reality."<sup>(92)</sup>

Even allowing for seasonal depopulation in the suburbs, where many inhabitants had moved temporarily beyond the Greater Warsaw area to take part in the summer harvest,<sup>(93)</sup> as well as the census commission's failure to investigate 102 mainly inner urban properties, the overwhelming number of 662,206 residents; i.e. 78.24% of the recorded populace, living permanently in the Mid-Town districts indicates an overwhelming proportion of the urban population was accommodated in no more than one fifth of Greater Warsaw's territorial area. For every four suburban residents and every three citizens of Praga there were 26 Mid-Town inhabitants; a ratio echoed in the 1919 census by

the 35 leftbank inner city barracks houses composed of more than 20 apartments to every 5 suburban and 4 inner city right-bank properties of this type. The proportion of apartments recorded in Mid-Town properties at this time in relation to the outer urban area and Praga, expressed as a ratio of c. 15 : 4 : 3, was not so great (i.e. 4x the number of apartments in *arrondissements* XVI-XXVI and 5x greater than *arrondissements* XIV-XV). The explanation for this marked difference must be sought in contrasting apartment sizes and their functions (accounting also for exclusively non-residential uses) between inner leftbank Warsaw and its suburbs, including Praga. (cf. Tables 6a and 6b in Chapter 4)

The population densities recorded in 1919 (cf. above table based on Table III of Annex I) reflect the broad urban divide between the leftbank Mid-Town, two rightbank inner city districts of Praga and the suburban *arrondissements* (displayed graphically in Plate IIIa). The very wide margin of between 73.93 (IX) and 662.49 (VIII) inhabitants per hectare recorded among the Mid-Town *arrondissements*, as in the question of building densities, may be explained at least in part by the failure to take into account open, undeveloped, land (cf. "Undeveloped land (...) " in Chapter 1B). By taking the pre-1914 estimation of built-up land for Mid-Town Warsaw and Praga combined (2307 hectares) and dividing it into the total number of inhabitants recorded in 1919 for *arrondissements* I - XV, the significantly larger and more realistic figure of just over 355 residents per hectare is obtained (compared to 225 residents per hectare in relation to the overall area of inner urban Warsaw).

4. Table of resident-population densities in 1919 calculated according to municipal district

District (okrag)		number of registered inhabitants	area in hectares	number of inhabited properties	number of habitable apartments	Mean resident densities		
						per hectare	per inhabited property	per habitable apartment
INNER (I-XIII)		662,206	2307	5255	167,839	287.01	126.01	3.95
PRAGA (XIV-XV)		74,606	966	928	20,394	77.23	81.27	3.66
BUILT-UP (I-XV)		736,812	2073	6183	188,233	355.43	119.11	3.91
OUTER (XVI-XXVI)		109,645	8210	4021	37,170	13.36	27.27	2.95
I	old I	36,335	116	402	10,348	313.23	90.39	3.51
	core II	40,429	106	400	10,398	381.41	101.07	3.89
N	new XII	23,847	121	298	7,363	197.08	80.02	3.24
	core X	40,460	137	455	18,362	295.33	88.92	3.56
N	III	73,746	173	553	17,495	426.27	138.36	4.22
	NW IV	48,354	116	221	12,108	416.84	218.80	3.99
	V	62,737	208	395	15,296	301.62	158.83	4.10
E	West VI	59,530	174	418	14,775	342.13	142.42	4.03
	VII	76,532	168	491	18,502	455.55	155.87	4.14
	VIII	65,587	99	414	14,962	662.49	158.42	4.39
R	South IX	29,275	396	285	8,102	73.93	102.72	3.61
	XIII	51,144	203	459	13,470	251.91	111.42	3.80
	XI	54,230	290	464	13,694	187.00	116.88	3.96
PRAGA	XIV	39,676	388	465	10,915	102.26	86.25	3.64
	XV	34,930	578	463	9,479	60.43	76.27	3.68
O	Moko- XVI	19,897	1106	401	6,429	17.99	49.62	3.09
	tów XX	7,637	560	309	2,854	13.64	24.72	2.68
U	Ozy- XIX	5,598	183	149	1,831	30.59	37.57	3.06
	ste XXII	17,622	569	403	5,660	30.97	43.73	3.11
	XXIII	19,596	538	413	6,322	36.42	47.45	3.10
T	Bród- XVIII	4,794	406	242	1,750	11.81	19.81	2.74
	no XXIV	8,368	427	440	3,541	19.60	19.02	2.36
	XXV	6,794	337	470	3,380	20.16	14.46	2.01
E	XXVI	11,332	1308	725	3,515	8.66	15.63	3.22
	semi- XVII	5,556	1722	334	1,817	3.23	16.63	3.06
	rural XXI	2,450	1054	136	700	2.32	18.01	3.50
GREATER (1916)		846,457	11483	10262	226,572	73.71	82.48	3.74
WARSAW (I-XXVI) (1919)		846,322	11483	9979	221,403	73.71	85.89	3.82

All calculations for the suburban districts have been based on the 1916 survey, while statistics relating to the inner urban districts (I - XV) have been taken from the 1919 property census.

### The administrative and commercial centre

Bearing in mind previously considered tracts of undeveloped land, particularly in *arrondissements* II, IV, V, VI, XI and above all in *Ujazdów okrag* (IX) (cf. Fig. 1.2.) a hypothetical division can be made of the Mid-Town administrative area into the following:

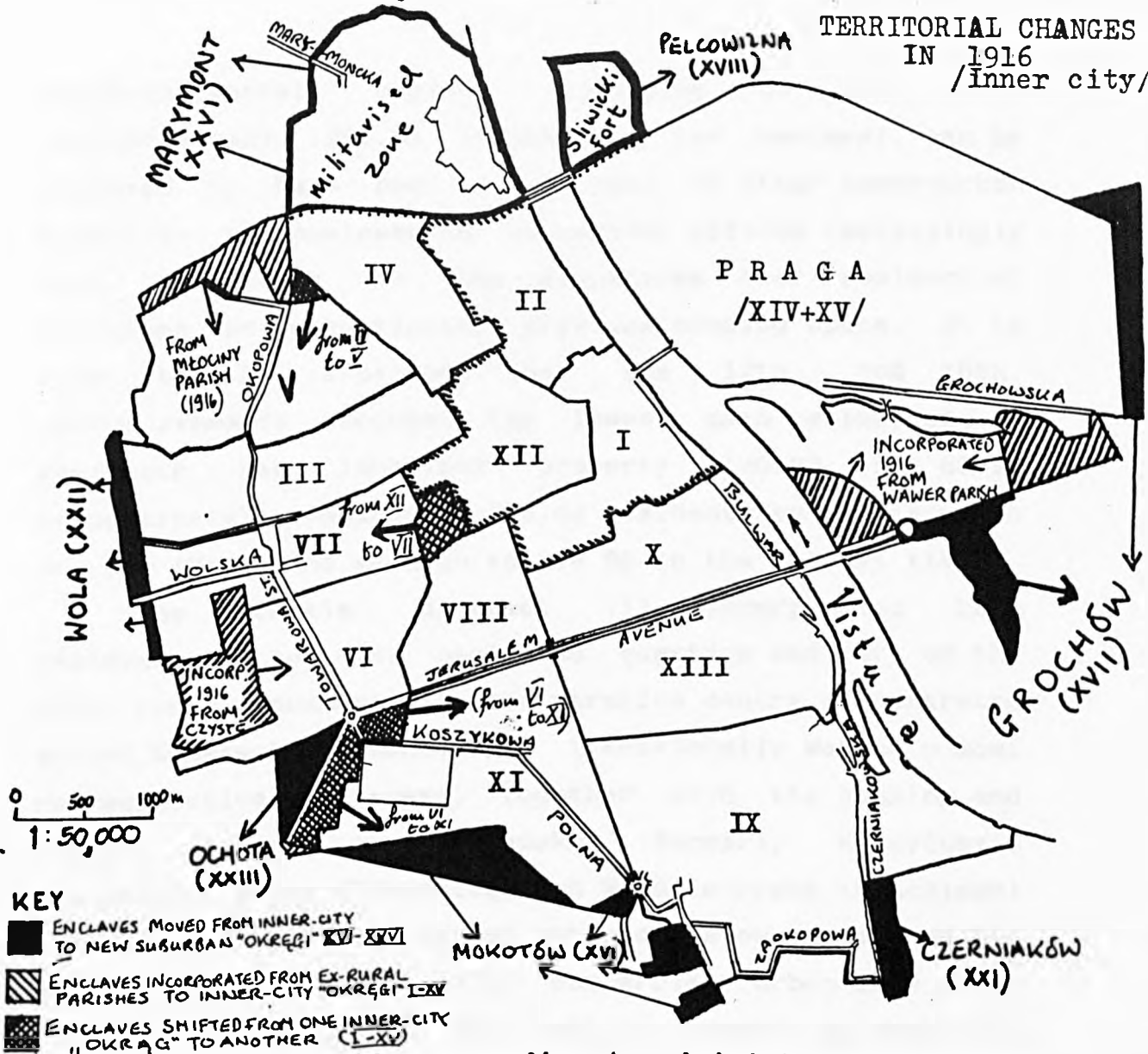
- (a) western and north-western quarters developed at high density and densely populated;
- (b) southern quarters and historic-central quarters developed at high density, but less densely populated (cf. Fig. 1.5 and compare with cartogram III in Plate IIIa)

However, the low population density recording for the North-Central commissariat (XII), which was largely built-up, needs to be explained, especially in relation to the neighbouring districts which were considerably more densely populated. Most of the city's more important public and state administrative buildings were located in this more representative part of the city, which had taken shape from the mid-18th. century, and in particular during the 1820s when, as capital of an autonomous Polish kingdom, Warsaw had been a major political centre in Eastern Europe. Most of the truly urbane town squares lay within the limits of the 12th *arrondissement*, together with the Saxon and Krasiński garden-parks. (94)

A more commercially-orientated central district developed from the 1850s<sup>(95)</sup> south of *arrondissements* XII to progress further southwards on both the Grzybów (VIII) and Nowy Świat (X) sides of upper Marszałkowska Street. Land values and rents rose more rapidly in this area as a direct consequence.<sup>(96)</sup> The population density of this



Figure 1.6 Administrative alterations and depopulation in the inner city arrondissements 1914-1919



(Table) Population decline according to administrative district

Municipal district	Population 1913	Population 1919*	Population decline	
IV Nalewki	54,745	51,581	- 3,164	(5.78%)
VIII Grzybów	70,124	65,587	- 4,537	(6.47%)
I/II Old + New Towns	c82,131	c76,764	- 5,367	} (6.54%)
XII North Central	c39,812	37,210	- 2,602	
III Leszno	81,698	73,746	- 7,952	(9.84%)
XI/VI Koszyki/Towarowa	116,805	103,760	-13,045	(11.17%)
IX/XIII South-South-east	99,761	80,419	-19,342	(19.39%)
X New World	50,128	40,460	- 9,668	(19.71%)
V Okopowa	75,961	59,510	-16,451	(21.67%)
VII Mirów	83,590	63,169	-20,421	(24.43%)
MID-TOWN (I - XIII)	754,755	662,206	-92,549	(12.27%)
PRAGA (XIV + XV)	90,375	74,606	-15,769	(17.45%)

\* Demographic statistics for 1919 have been calculated in accordance with the pre-1916 administrative divisions.

southern-central region, focussing on the 10th. *arrondissement* (295.33 inhabitants per hectare), can be expected to have been lower than in other inner-urban districts as business and commercial offices increasingly took precedence in the properties over residential functions or even replaced previous housing space. It is only to be expected that the 12th. and 10th. *arrondissements* recorded the lowest mean estimations of residents per inhabited property (80.02 and 88.92 respectively), compared to 158.42 residents per property in Grzybów (VIII) and as high as 218.80 in the Nalewki (IV).

The Castle district (I) incorporated both residential, somewhat neglected quarters and part of the 19th. century commercial-administrative centre concentrated around Krakowskie Przedmieście, traditionally Warsaw's most representative boulevard, together with the banking and credit houses on Erywańska (formerly Kredytowa), Mazowiecka, Berga (Traugutta) and Włodzimierska (Czackiego) streets. The Old Town had entered a slow decline as the administrative and evolving commercial urban core arose further to the south and west; an example as such of a discard zone (refer to Chapter 5).

The demographic pattern in 1913 (I) :  
the municipal districts

The inner city of Warsaw, including the rightbank district of Praga, suffered comparatively minor material damage during the First World War. Consequently, it has been assumed for the purposes of this investigation that the

number of built-up properties recorded in 1919 and even the number of apartments, inhabited or vacant, reflects to an adequately reliable degree the situation as it had existed in 1914. This virtual paralysis in the city's physical development between 1914 and 1919 cannot by any means be assumed of the social structure.

During the war, the birth rate fell to a 1918 low of 14.1% (from 24.9% in 1914), while the death rate rose from 18.6% in 1914 to a peak of 44.3% in 1917, falling to 36.7% the following year. As a direct cause of war and its prolongation, Warsaw had a negative nature increase rate rising from 5.6% in 1915 to 26.5% in 1917 and falling in 1918 to 17.6%.<sup>(97)</sup> Nevertheless, the number of births in the city in relation to a previously falling mortality rate had contributed only a small part to the dynamic growth of Warsaw's population prior to 1914; the reversal of natural increase does not explain the overall demographic decline between 1914 and 1918.

All inhabitants possessing German and Austrian citizenship had been compelled to leave the Russian Empire at the outbreak of war, while a very significant proportion of the Russian ethnic minority had departed from the city with the retreating tsarist forces a mere 12 months later. Thereafter living conditions drastically worsened, not least in connection with the Wehrmacht's semi-colonial occupation policies.<sup>(98)</sup> The inevitable outcome was urban depopulation.

In 1913, the last full year of peace, the Mid-Town and Praga districts had a combined population of 845,130 inhabitants, compared to the 736,812 recorded residents in 1919 for what essentially amounted to the same area; a difference of 12.17%. Even allowing for the 1919 property

count's failure to enumerate unregistered inhabitants, including the homeless, urban depopulation was evident and extensive. Dividing the built-up area of commissariats (*cyrkuły*) I-XV into the recorded population in 1913 reveals the pre-war population density for inner Warsaw was as high as 408 inhabitants per hectare (compared to the 1919 calculation of 355 inhabitants per hectare; (cf. Table 4).

The City of Warsaw (*Miasto Warszawy / Gorod Varshavy*) until 1916 had been divided into 15 administrative districts known throughout the period under investigation as "cyrkuls" (*cyrkuły*), rather than "okrags" (*okręgi*) from 1916 until 1951. These "cyrkuls" and the overall territorial area of Warsaw City very closely resembled the 15 post-1916 "okrags", or *arrondissements*, composing the inner-leftbank city and Praga. Nevertheless, certain disparities existing between the pre- and post-1916 administrative delineations (cf. Fig. 1.6) must be accounted for if a reliable picture of population densities as they had stood before the war is to be established in relation to hectaral area and the property statistics provided by the 1919 census.

Changes in the overall territorial area of the leftbank inner city, or Mid-Town, particularly complicate estimating depopulation in Koszyki (XI) and Towarowa (VI) districts, which have been combined to reduce inaccuracy. Small enclaves belonging to *cyrkuły* III, VII, IX and XI/VI, as well as XIV and XV, but excluded from *okręgi* of corresponding numbers, have had to be disregarded for lack of detailed statistical data both in 1913 and 1919, these border areas having been placed under the jurisdiction of the newly-created suburban *okręgi* in 1916. With the exception of two large and relatively densely-populated

areas straddling the Warsaw-Vienna railroad, one formerly belonging to Czyste parish, and the other transferred in 1916 from former *cyrkuł* VI to Ochota (XXIII) *okrag*, these enclaves were either undeveloped or small, built up at very low density and sparsely populated. An additional complication was encountered in connection with the generalised demographic statistics taken from the 1913 City Council annual bulletin (cf. Table IV in Annex I), in which the number of citizens registered in the Castle (I), New Town (II) and "Central" (XII) commissariats was presented as a single figure (121,943 inhabitants). The discrepancy of 7,969 (6.54%) arising between the 1913 and 1919 figures for the area comprising the three municipal districts has had to be divided equally between each district. The same problem arose with the "Łazienkowski", or Ujazdów (IX) and Alexander (XIII) *cyrkuły* which until 1907 had constituted a single administrative unit.

The more centrally-located regions of the Mid-Town represented by *cyrkuł/okrag* divisions IV (Nalewki), VIII (Grzybów), as well as I, II and XII experienced relatively minor depopulation during the war. However, in the more peripherally-located inner city regions represented by *arrondissements* V, VII, IX/XIII and XI/VI the demographic margin was proportionally much greater, accounting for as much as c. 25% of the pre-1914 population in Mirów (VII) district.

A relationship would seem to have existed between the disparity in the number of inhabitants recorded in 1913 and 1919 and the extent to which a given district had become integrated into the urban infrastructure.

It has been established in connection with building densities and property sizes that, apart from those

territories excluded altogether from the urban process, there were extensive parts of the inner city which had evolved in an unrelated or semi-isolated way from the Main City (cf. "Peripheral areas of the Mid-Town (...) " in Chapter 2B), forming a hypothetical transitional zone between the belt of consistent, overwhelmingly tenement property development and the previously unincorporated urban outback of the suburban zone. The social structure of such a fringe, or twilight, area would tend to broadly contrast with that of the true inner, or "Main City" ("*głównne miasto*").<sup>(99)</sup> In times of severe economic and social deprivation it is to be expected that demographic instability would be especially marked in under-privileged parts of the city, just as in peacetime population trends in so-called poorer districts often proved to be erratic.<sup>(100)</sup> Demographic instability of this kind would appear to have been very characteristic of Warsaw's inner urban peripheral areas, reflected to no small degree in the chaotic, partially-evolved urban profile of Powiśle, Wola (including other parts of the western districts) and Praga. This instability is partially concealed by the haphazardly-defined administrative districts, upon which nearly all statistical data prior to 1914 had been based.

The specific urban structural and social qualities of Powiśle, the riverside area largely cut off from the main 19th. century, urban-creating processes, divided administratively between commissariats I, X, IX and, from 1908, XIII, should to some extent explain the disproportions arising between the 1913 and 1919 demographic data: especially in the southern-central, New World district (X) where almost 20% of the prewar population was absent in 1919. The western inner

peripheral district of Wola (as opposed to Wola Suburb, constituting a quite separate administrative division (XXII) after 1916) had been incorporated into Warsaw City in stages between 1887 and 1907, but had not been fully integrated into the urban organism.<sup>(101)</sup> Poor living conditions, exacerbated by the preeminence of industrial location and the general lack of sewers or piped water supply in private housing, were characteristic of this typical inner-suburban district. The most extensive and densely-populated quarters of Wola fell under the jurisdiction of Mirów police district (VII), the population of which, according to the 1919 property census, had fallen by more than 20,000 inhabitants, or nearly 25%, since 1913.

It is worth noting that Praga, manifesting certain characteristics in building densities and property sizes common to both the leftbank Mid-Town and suburban zone, recorded a smaller proportional loss of population between 1913 and 1919 than the leftbank *arrondissements* IX/XIII, X, V and VII which embraced extensive inner peripheral areas.

#### First-generation rural immigrants and urban depopulation

The large discrepancies arising in the demographic statistics available for Warsaw City in 1913 and the 15 inner urban *arrondissements* in 1919 resulted at least in part from the 1919 property count's treatment of the demographic question as a secondary, although related, factor. Urban depopulation, the second and presumably main reason for these disparities, arose as a direct consequence of national emigration (German-Austrian and particularly

Russian nationals), but above all as a result of rural migration. For many first generation urban dwellers it would have been easier to return to villages and family than to survive wartime hardships in the city. These rural migrants would doubtless have included unskilled labourers, many put out of work by the war, craftsmen's apprentices, street traders who may have not been registered as living even temporarily in the city anyway, as well as innumerable servant girls or the most recent rural immigrants unable to secure a living in the city.<sup>(102)</sup> In addition, large numbers of Warsaw's male population would have been conscripted into the tsarist army, many of whom had still not returned home in 1919 from a wartorn and revolution-racked Russian heartland. Others had joined the newly-created Polish armed forces and, bearing in mind Poland's uncertain political situation in 1919, may well have not been counted in the census.<sup>(103)</sup>

An exceptionally extreme case of urban depopulation resulting from an exodus of citizens of peasant backgrounds occurred during the same period in Moscow when the population crashed in under three years from around two million to 1,027,000 inhabitants.<sup>(104)</sup>

In the light of meagre demographic sources and chaotic conditions brought about by the war, it is unlikely a precise figure of citizens migrating, or even emigrating, from Warsaw between 1914 and 1919 could be established.<sup>(105)</sup> The question remains, however, of those inhabitants present in the city but not recorded in the 1919 census. These may have included a small number of "temporary" residents (67.8% of the 1914 population), registered permanently in their place of birth,<sup>(106)</sup> but above all, a significant number of people who, for varying



reasons, were not registered in the police commissariats. There is very little statistical information concerning such immigrants, who tended to avoid registering for lack of a definite abode, or, if Jewish, out of an ingrained fear of the authorities (it is worth noting that the Jewish ethnic minority, representing 38.1% of the registered population in 1914, and 44.9% in 1917, proved less mobile than the Christian population which declined proportionally).<sup>(107)</sup> Unregistered immigrants frequently lived with family or friends, or rented crowded, but cheap accommodaton in the poorer districts, sometimes paying an additional fee to circumvent the registration law.<sup>(108)</sup> Most of the data returned by the census collector in 1919 which on further inspection proved to be inaccurate had been gathered mainly in street blocks situated in such peripheral, overcrowded and inadequately-developed parts of the inner city as Powiśle, Wola - including other parts of western *arrondissements* VI, VII, III and V - as well as Praga (cf. Part II, Chapter 7).

A very significant aspect of Warsaw's social structure as it took shape during the late-19th. century and early part of the 20th. century is a numerous, but sparsely documented, virtually anonymous group of some of the poorest citizens finding themselves on the fringes of society, and also inhabiting the city's inner urban fringe zone.<sup>(109)</sup> If serious doubts arise as to the accuracy even in the police registers of so-called permanent and non-permanent inhabitants (*stała* and *niestała ludność*) for the City of Warsaw, yet greater difficulties must inevitably arise when investigating suburban districts lying beyond the pre-1916 city limits.

The demographic pattern in 1913 (II):  
the sub-urban zone

Statistics relating to population growth are the major base for analysing urban development in the suburbs until the First World War. No survey was ever carried out here prior to the 1916 incorporation and records of building activity are too fragmentary to provide a comprehensive picture of the urban processes which had evidently got underway long before the Greater Warsaw Area became a political entity.<sup>(110)</sup> The population statistics are themselves incomplete, preventing an analysis of annual fluctuations.

In most cases registers of permanent and non-permanent residents had not been compiled before as late as 1890 (in certain parishes since 1880), suggesting that urban development had been comparatively insignificant until then. The number of inhabitants in the entire parish (*gmina*) was recorded; it was only in 1910 that individual villages and communities were first distinguished, a sizeable number of which had already become dynamically-expanding, populous townships.<sup>(111)</sup> The "village" (*wieś*) of Wola, for example, lying just beyond the western administrative borders of Warsaw, possessed 26,401 inhabitants. No settlement in the suburban zone was ever granted municipal status by the Russian authorities, nor were frequent appeals by the inhabitants of Mokotów, among other urbanising communities, to be incorporated into Warsaw City seriously heeded.<sup>(112)</sup>

From at least the mid-19th century, the seven rural parishes encircling Warsaw and Praga had begun to fall increasingly, if in varying degrees, under the influence of the city's intensive urban development.

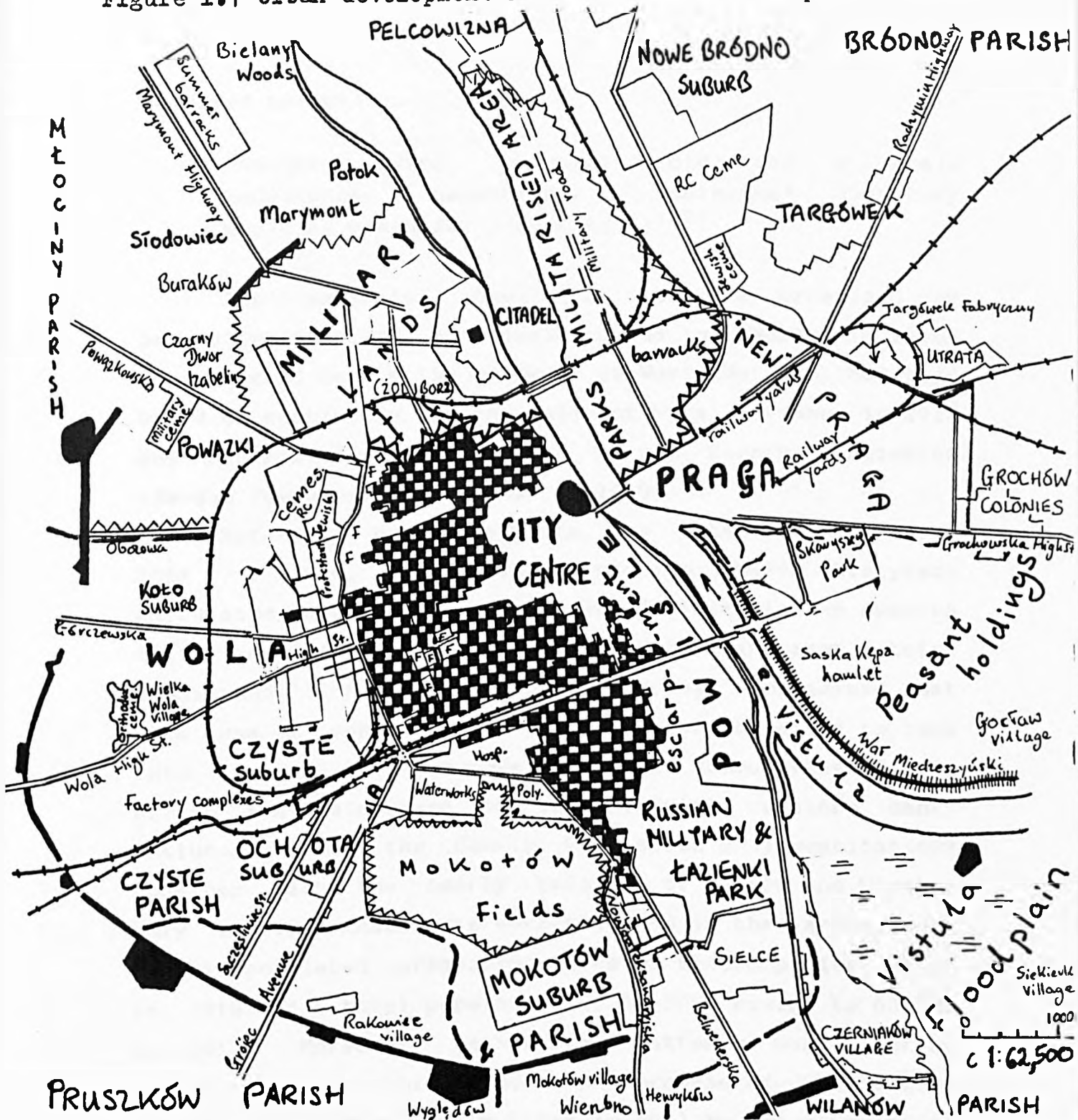
Czyste and Mokotów parishes, evolving as suburban growth areas in the natural westward and southerly orientation of the main city's spatial expansion, had already been absorbed before their administrative incorporation in 1916.

The remaining rural parishes could be broadly subdivided between regions directly influenced by urban processes and those retaining basically rural characteristics (excepting more distant small towns, such as Pruszków, Wołomin and Otwock, situated beyond the city's immediate hinterland, as well as the fortified zone, apart from Konstancin and other summer-villa townships or health resorts for the well-to-do).

The urbanising territories of Bródno and Młociny parishes experienced particularly dynamic demographic growth in the 1890s and early-20th. century, while Wawer, Wilanów and Pruszków parishes, beyond individual suburban colonies, were still very sparsely populated in 1913 (cf. Fig. 1.7 and Table 4).

These rural parishes formed part of Warsaw County (*powiat*), which in 1911 was inhabited by 275,178 people (excluding Warsaw City). Recording a density of 195.9 inhabitants per square kilometre, Warsaw *powiat* was the most densely populated county of Warsaw Province (*gubernia*), and indeed much of Central-Eastern Poland. Nevertheless, the rapid fall in population densities from around 100,000 residents per square kilometre in Warsaw's Mid-Town tenement districts (cf. Grzybów tenement district, T-7 in Chapter 6 of Part II) to under 200 people per square kilometre in its home county was very great and is indicative of a feature in the city's development arising in the the 18th. century which S.Herbst, for example, has

Figure 1.7 Urban development in the suburban zone prior to 1914



(Table) Estimated population decline in the urbanising rural parishes

Parish/ "gmina" (post-1916 "okrąg")	Total population		% of temporary residents and population decline	
	1913	1919		
Czyste (XIX, XXII, XXIII)	c76,000	42,816	80.1%(1910)	c -43.7%
Mokotów (XVI, XX)	c26,000?	27,534	85.0% "	c +1.1%?
Bródno (XVIII, XXIV, XXV)	c60,000	19,956	46.6%? "	c -66.7%
Młociny (XXVI)	c20,000	11,332	84.0% "	c -43.3%
Remainder (XVII, XXI and parts of XVI, XX, XXIII)	c8,800?	8,000	c45.0% "	c -9.1%?
SUBURBAN ZONE (XVI-XXVI)	c190,800	109,645	c69.6% "	c -42.5%

(?) Low population figures for Mokotów and Wilanów parishes and a lack of data for Nowe Bródno suburb must be taken into account.

77

referred to as:

"Wielka wyspa wolności miejskiej w kraju poddaństwa, pańszczyzny, społecznej dyktatury wielkiej własności ziemskiej." (113)

The estimated population of the urbanised or partially-urbanised area incorporated into Warsaw in 1916, as it stood before the outbreak of World War One, has been based on statistics for the relevant rural parishes in 1913 and records compiled by the Warsaw County commission (*Zarząd Powiatowy Warszawski*) of 1910. (114)

Referring exclusively to the detailed statistical data of 1910, the social historian, Maria Nietyksza calculated that 134,974 people were dwelling in the suburbs that year; i.e. 16% of the metropolitan area's total population. (115) The authoress herself emphasised that this was a conservative estimation which failed to take into account the populous suburban communities of Nowe Bródno and Pelcowizna on the Vistula's eastern bank, excluded from the County Commission's investigations together with the nearby colonies of Ustron and Utrata. Only 14,912 inhabitants were recorded in the larger, more densely-populated urbanising area of Bródno parish, which in 1910 had a total population of 51,000, rising to 65,000 by 1913. Moreover, residential patterns were altering dramatically at this time; the process of urbanisation having been greatly stimulated in 1911 by the removing of building restrictions in most territories lying between Warsaw City and the inner girdle of Russian fortifications. Within a mere three years the population of Młociny parish (until 1911 seriously affected by its close proximity to the Russian Citadel) increased almost twofold, due to a

minor urban explosion in Powązki and several other shanty towns. This explosion is equally reflected in the tracing of new streets fronted by some tenement housing in Mokotów, Ochota and (outer) Wola suburbs (cf. "Tenement housing in the leftbank suburbs" in Chapter 2B).

Allowing for relatively low densities in the more rural parts of Bródno and Młociny parishes excluded from the administrative incorporations of 1916 (estimated at around 5000 and 4000 inhabitants respectively), and drawing on the 1910 results for village or semi-urban communities in Wawer, Wilanów and Pruszków parishes embraced by the greater metropolitan area, the figure of 190,800 suburban dwellers is proposed as a realistic estimation for the year 1913. This calculation compares favourably with that made by the modern social historian, J.Cegielski who suggested an overall population of 1,019,500 for the future Greater Warsaw area in 1914. (116)

Doubts may arise from the calculation made for the purposes of this investigation of 1,035,930 inhabitants for the combined areas of Warsaw City and its suburbs in 1913 (calculations presented in Table 4). The proportion of suburban inhabitants in relation to the total population of inner and outer city (18.4%) exceeds by quite a large margin Nietyksza's calculation (14.7%) and Cegielski's for 1914 (12.7%), as well as that based on the 1919 property census (13.0%).

Nietyksza preferred not to make an estimation for 1913, underlining at the same time that the figure for 1910 certainly understated the real situation. Cegielski, by taking the 1914 estimate for Warsaw City of 884,544 inhabitants and even rounding it off to 890,500 inhabitants, suggesting a figure of 129,000 suburban

dwellers, overemphasised the inner city and understated demographic growth in the outer city. The estimation for 1910 failed to account for important developments occurring from 1911, while in 1914 peace time conditions prevailed only during the first seven months. (117)

#### Urban depopulation in the suburbs

A strong relationship would seem to have existed between delayed or unintegrated urban growth in a number of peripheral districts incorporated into the City of Warsaw before 1914 and demographic instability. In times of prosperity and rapid urbanisation the number of new arrivals would be expected to have been high, but during periods of economic and social deprivation the influx of immigrants would wane or might even be reversed, as evidently occurred in most parts of inner-central Warsaw after 1914/1915; above all in the underdeveloped and socially underprivileged districts of Powiśle, (inner) Wola and Praga.

Until 1914 numerous unincorporated, sub-urban communities, especially in Czyste, Mokotów, Bródno and Młociny parishes, had been expanding since the 1890s; a process considerably accelerated after 1911. Demographic increase rates were erratic but generally much higher from around 1900 than the relatively consistent growth rate measured in Warsaw City. (118) The 1919 census established that during the early years of the 20th. century the number of new properties raised beyond the city limits actually exceeded those constructed in the pre-1916 municipal

districts.<sup>(119)</sup> These suburban properties on the whole did not compare in scale and technical standard with those of the Main City, although as many as 473 "barracks"-type houses were recorded in the outer city by the 1919 census commission; i.e. a substantial 12% of the entire number of such building forms in the metropolitan area. The building activity and ever increasing influx of immigrants settling outside the generally overcrowded municipal districts, where rented accommodation was becoming too great for lower income groups, indicated the tide was already beginning to turn away from the inner city in favour of its neglected suburban outback.<sup>(120)</sup>

Living standards and housing conditions tended to be considerably more primitive than in the Main City. Although electricity sub-stations were already operating in Mokotów and Wola before 1914, water and sewer facilities were still largely absent. Beyond these relatively longer-established suburban districts, streets had yet to be laid out while high roads were in need of regulation. Even as the suburban explosion began, municipal initiative, beyond bold visions on paper, was so severely restrained by the burdens of a meagre annual budget and overpowering central government it remained highly ineffective.<sup>(121)</sup> The social welfare of most suburban inhabitants would have been subject to the whims of a volatile market economy and labour demands.

The *Piervaya vsheodshchaya pieriepis* (...) population census of 1897 provided some statistics on contemporaneous suburban quarters (*priedmiestie*) of inner Wola, part of Powazki suburb and Praga; districts which had arguably reached a similar level of urban development by the turn of the 19th. century as the most intensively-evolving,



unincorporated suburban districts of (outer) Wola, Ochota, Mokotów, Nowe Bródno, Targówek, Pelcowizna and (outer) Powązki by 1914. In contrast to the inner-central districts, factory workers, craftsmen, unskilled labourers and transport and communication employees were proportionally more numerous, apart from a comparatively smaller group of farm labourers in the outskirts. (122)

In the 1890s and early years of the 20th. century factories were either set up or relocated beyond the city limits on cheaper and more open land, frequently provided with improved transport facilities in the form of railway lines radiating from the inner city or sidings, as well as plentiful water supply where needed. Special permission before 1911 was granted by the authorities in St. Petersburg for factory location in the militarised fortification zone. The workforce lived in the immediate vicinity or commuted, usually by foot, from the city. (123) Other rural immigrants settling in the suburbs where living costs were generally lower than in the city would have found employment in the municipal districts. (124) A significant group of Russian state railway workers was accommodated in a purpose-designed housing colony near the Nadwiślański passenger station and goods depot in Nowe Bródno (presumably excluded from the 1919 census, because it had been taken over in the meantime by Polish State Railways (PKP) which refused to divulge information on its properties in the Greater Warsaw Area).

The fact that the vast majority of suburban dwellers were first-generation settlers is underlined by the very high percentage of temporary or non-permanent residents registered by the County Commission of 1910 (cf. table in Fig 1.7). In Czyste, Mokotów and Młociny parishes more

than 80% of the registered population had been born outside the parish; the figure of 46.6% for Bródno "gmina" is unrealistic, since it did not take into account Nowe Bródno and Pelcowizna settlements.

The state railway employees living in the urbanised part of Bródno parish would have been evacuated together with the tsarist forces in 1915. Correspondingly, urban depopulation, reflected in both the 1916 and 1919 surveys, was greatest in Pelcowizna (later renamed Gołędzinów), Targówek and Bródno suburban *arrondissements* (i.e. around two thirds of the number of inhabitants estimated in 1913).

Elsewhere, the closure of many factories and dismantling of machinery, first by the retreating Russians, later by the occupying German forces, led to the laying off of more than 30,000 skilled workers in the metropolitan area between 1914 and 1917. In Czyste parish alone 20 factories out of a prewar total of 32 were shut down up to 1916.<sup>(125)</sup> Inflation, epidemics and food shortages made life more difficult even for those who maintained some kind of an income.

Even while the suburbs were finally being administratively integrated into the Main City, suburban dwellers were leaving in almost as large numbers as they had been arriving before 1914.

Attention should be drawn to the suburban *arrondissements* of Mokotów (XVI) and Sielce (XX), incorporating the urbanising settlements previously situated in Mokotów parish, which in 1919 recorded a combined population of 27,534 inhabitants, compared to only 26,000 in 1913. If the 1913 figure were reliable, Mokotów suburban community together with Sielce would be the only parts of Greater Warsaw, including the inner-urban

commissariats, not to have experienced urban depopulation during the war. Although it is likely inaccuracies existed in the Mokotów parish police registers (32,000 residents had been recorded in 1905), the explanation for this exceptional state of affairs could well lie in the leasing of vacant apartments and perhaps entire tenement holdings during the war; even wartime property speculation (cf. "Mokotów outer tenement district" in Chapter 8). (128)

Population distribution in the tenement belt  
and urban fringe

Table 4 has been compiled on the basis of statistical data drawn from the following sources:

1. the 1913 annual statistical report for Warsaw City (population for *cyrkule* I-XV; cf Table IV in Annex I);
2. parish records predating 1916 (total population of the 7 neighbouring rural parishes);
3. the annual publication of Warsaw Council's Statistics Division for 1916 (numbers of inhabited properties; cf. Table 5 in Annex I);
4. the property census for the entire city of 1919 (numbers of inhabited properties and habitable apartments for inner-city commissariats I-XV, as well as data relating to outer-city *arrondissements* XVI-XXVI).

A comparison of estimated mean population densities for 1913 with those recorded in 1919 (in relation to hectaral area,

5. Table of estimated population densities based on police registers of permanent and non-permanent residents in 1913 according to municipal district and neighbouring parishes

MID-TOWN (I-XIII)	754,755	c2360	c5269	c168,000	c319.81	c143.24	c4.49
PRAGA (XIV-XV)	90,375	c945	928	20,394	95.63	97.39	4.43
INNER BUILT-UP	845,130	2073	6197	c188,400	407.68	136.37	c4.48
SUBURBS (urbanising parishes)	c190,800	c7940	c5326	c40,000?	24.03	35.82	c4.47?
Citadel	-	238	-	-	-	-	-
Warsaw City							
old I	c38,875	116	402	10,348	c393.00	c97.00	c3.76
core II	c43,256	106	400	10,398	c408.00	c108.00	c4.16
new XII	c39,812	c134	363	10,303	c297.00	c110.00	c3.86
core X	50,128	137	455	11,362	365.90	110.17	4.41
III	81,698	c178	c560	c17,500	c459.00	c146.00	c4.66
NW IV	54,745	c120	245	12,889	c456.00	223.44	4.26
V	75,961	c225	c390	c14,800	c337.00	c195.00	c5.13
VI	74,566	c200	c450	-	c373.00	c166.00	-
West VII	83,590	c150	c430	c15,600	c557.00	c194.00	c5.36
VIII	70,124	99	414	14,962	708.32	169.38	4.69
IX	99,761	c610	c760	c21,700	c165.00	c131.00	c4.60
South XIII							
XI	42,239	c285	c400	-	c148.00	c105.60	-
XIV	c48,062	388	465	10,915	c124.00	c103.00	c4.40
XV	c42,313	c557	463	9,479	c76.00	c91.00	c4.46
Urbanising parishes ("gmina")							
Czyste	c76,000	c1000	1280	-	c76.00	c59.38	-
Mokotów	c26,000	c600	964	-	c43.00	c26.97	-
Mokotów Fields	-	c150	-	-	-	-	-
Bródno	c60,000	1140	1965	-	c53.00	c30.53	-
Młociny	c20,000	c1100	635	-	c18.00	c31.50	-
Wawer	c4,100	c1740	362	-	c2.35	c11.32	-
Wilanów	c3,900	c1550	120	-	c2.52	32.50	-
Pruszków	c800	c660	-	-	c1.22	-	-
GREATER WARSAW AREA	1,035,930	11483	c11523	c228,400	c90.21	c89.90	c4.54

The estimated number of apartments for the suburban districts has been based on the 1919 figure (37,170) and the disproportionate number of properties recorded before 1914 in the parish registers (total of 5326) in comparison to the 1916 figure (4021).

inhabited properties, as well as according to apartment subdivision in former *cyrkule* I-XV) indicates the changes to population distribution within the metropolitan area brought about during the First World War (compare Tables 3 and 4).

The main objective of compiling Table 4 has been to establish a more reliable picture of residential patterns in Warsaw as they had been unfolding until 1914. Considering the extent to which the distribution of population had altered during the Great War, above all in the newly-incorporated suburban zone, but also in extensive parts of the inner city, it would seem more desirable to relate the results of the 1919 property census to residential patterns pre-dating wartime hostilities as opposed to the demographic data contained within the same property census.

The total number of inhabitants recorded in Greater Warsaw during the 1919 property count (846,322) fell substantially below the estimation made for the corresponding territorial area in 1913 (1,035,930). Depopulation was proportionally far greater in suburban districts than in the 15 inner-urban commissariats comprising the former City of Warsaw, suggesting greater demographic instability and comparatively recent, dynamic qualities inherent in the outer city's urbanisation. A disparity of 12.27% exists in the Mid-Town's prewar population (1913) and the number of residents recorded for *arrondissements* I-XIII in 1919. The disparity is greater still in Praga (17.45%), while a demographic decrease of 42.54% during the same period has been estimated for the suburban zone. Urban depopulation varied immensely from one district to another; i.e. from 5.78% to 24.43% of the 1913 population within the pre-1916 city limits, increasing to as

high as c. 66.7% in the suburbs (incorporated part of Bródno parish).

The paradoxical increase of Mokotów suburb during the war, although probably due, at least in part, to unreliable parish registers from before 1916, should be born in mind. Relative demographic stability in this part of the city in all likelihood had arisen from intensive urban development already underway before 1914 (114 "barracks" houses from a total of 401 inhabited properties) and would have been accompanied by fundamental alterations in the social make-up.

K. Dunin-Wasowicz in his analysis of demographic trends in Warsaw during the First World War noted that:

"We are unable to estimate the number of people leaving Warsaw before the German army's arrival.

Thereafter, the cause behind Warsaw's population decline was migration to the countryside or other towns, provoked above all by the reduction in places of work in the city and food shortages."(126)

A depleted job market and serious lack of even basic food commodities inevitably affected most deeply the poorer and least-established elements of Warsaw's populace living - as has been suggested - not only on the edge of society, but also on the physical periphery of the city (refer back to "First generation rural immigrants and urban depopulation" in this chapter).

Wartime depopulation has been tied in with demographic instability observed in the social structure of the suburbs and, to a far lesser extent, in the inner city. In spite of a negative increase rate brought about by wartime hostilities and the emigration of certain ethnic groups, an

exodus from the metropolitan area of socially and economically less fortunate citizens has been interpreted as the main causal factor behind the significant fall in population between 1913 and 1919.

The estimated population of the Greater Warsaw area fell from over one million inhabitants in 1913 (still rising in 1914) to 827,234 residents at the end of 1916.<sup>(128)</sup> No general count was carried out in 1917, when the number of deaths (34,637; mainly from starvation and disease) almost doubled that of the previous year and an evacuation programme of children and civilian adults was actually introduced by the Germans. 1918 witnessed certain alleviations to the general crisis, while, in the wake of Germany's defeat and the declaration in Warsaw of Poland's national sovereignty, the number of inhabitants recorded on 1st. January 1919 (820,180) already reflected renewed population growth. The reversal of urban depopulation from 1918 is clearly reflected in the figure of 846,322 residents recorded in the property census which was conducted barely six months later. By the end of 1921, when a national census was carried out, the population of the 15 inner-city municipal districts (844,861) almost mirrored that of 1913 (845,130). In contrast, the suburbs, recording 130,629 inhabitants in December 1921, compared to 109,675 in 1916 and an estimated 190,800 in 1913, were recovering far more gradually in the immediate and still uncertain postwar years.

The decline in Warsaw's population during the 1914-1918 war pales into relative insignificance when compared with the "holocaust" its citizens were to experience during the Second World War (cf. Table VI in Annex I).

## Residential patterns and urban morphology

Examining residential patterns based on demographic data from 1919 (1916 for the suburbs) and demographic sources predating wartime hostilities has revealed certain features relating to Warsaw's internal structure which are highly relevant to an investigation of its physical structure.

1. Allowances must be made when analysing the results of the 1919 property census for evident changes to residential patterns as they had taken shape until the outbreak of World War One, indubitably affecting the social structure.

Population densities were significantly higher before 1914 in suburban districts, with the one apparent and major exception of new-municipal "okrag" XVI (Mokotów). Leftbank inner-urban districts, such as Okopowa(V), Towarowa(VI), Mirów(VII), Ujazdów(IX) and Nowy Świat(X), had also experienced excessive wartime depopulation.

Slight alterations in 1916 to the boundaries of some inner-urban districts have had to be born in mind (Figs. 1.6 and 1.7).

2. Comparative demographic stability, or inertia, during the Great War, which had halted urban growth and reversed demographic trends, would seem to have prevailed in those parts of the city proven to have been most consistently composed of tenement, or barracks-type, housing.

A population decline between 1913 and 1919 of only 5.78% in Nalewki (IV) *arrondissement* and 6.45% in Grzybów(VIII) has been calculated, falling well below wartime urban depopulation estimated for the metropolitan area (18.3% of the pre-war population). It should be



emphasised that the 4th. and 8th. commissariats were among the most populous inner-city districts of Warsaw.

3. Inner-urban *arrondissements* incorporating under-developed, so-called peripheral quarters where large-scale and consistent tenement building was largely absent or still in the early stages of development experienced invariably much greater demographic decline in 1914-1918 than commissariats IV and VIII.

Thus, Nowy Świat (X) commissariat, incorporating part of the lower town, riverside district of Powiśle, and Mirów (VII), the borders of which had been extended westwards in 1888-1908 to partially incorporate Wola "suburb" (*Wola pod cyrkulem*), recorded wartime drops in population of c. 20% and c. 25% respectively.

4. A broad pattern may be observed from the calculations and estimations made in Tables 3 and 4 of proportionally-measured depopulation rates rising with increased distance from the tenement belt, represented in its most concentrated form by *arrondissements* IV and VIII, to reach the dramatic losses occurring in the former rural parishes (e.g. 66.7% in (urbanised) Bródno and 43.7% in Czyste; cf. map "D" in Plate IIIb).

This pattern has been interpreted as reflecting poorer living standards and housing conditions prevailing on the edge or outside of the tenement belt.

5. It should be emphasised that depopulation rates have been calculated in relation to the number of residents registered in municipal districts (i.e. *cyrkule* I-XV) or suburban parishes in 1913. Consequently, even while

demographic decline, expressed as a percentage of the pre-war population (1913), was considerably greater in the suburbs than the inner city, the actual number of migrants, or emigrants, leaving the densely populated City of Warsaw (90,375) still surpassed the number of inhabitants migrating or emigrating from the outer city (estimated to have exceeded 80,000).

Nevertheless, the suburbs, losing about half the estimated pre-war population, had been far more severely effected by wartime urban migration than the inner city which had lost just over one tenth of its inhabitants registered in 1913; and even then only temporarily, since by 1921 the population of *arrondissements* I-XV already virtually equalled that of 1913.

6. The hypothesis, based on cartographic and literary sources, that statistics relating to municipal districts I-XIII concealed through the non-functional administrative subdivision of the "Mid-Town" an inner-urban periphery has been strengthened by demographic analysis. This inner-peripheral area, or transitional zone lying between the true "city of tenement barracks" (*Mietskaserne*stadt) and sub-urban outskirts, may be expected to have shared some of the urban morphological and social-structural characteristics of semi-isolated, delayed urban growth already observed in *arrondissements* XIV and XV on the Vistula's East Bank (cf. "Praga" in Chapter 2B).

The changes observed in population distribution between 1913 and 1919 seem to justify the necessity of drawing a threefold subdivision of the metropolitan area, as opposed to a more basic urban divide between the pre-1916 administrative area of "Warsaw City" (*miasto Warszawy* /

ГОРОД ВАРШАВЫ) and its new suburban districts (*okręgi* XVI-XXVI).

#### HISTORIC CENTRE/CBD AND TENEMENT BELT

The Mid-Town (*Sródmieście*), located on the River Vistula's left bank, and composed of the 13 (post-1908) municipal districts is limited to an area situated above the river escarpment and lying within the pre-1870 customs wall (cf. Fig. 1.5). Taking residential patterns observed in Nalewki (IV) and Grzybów (VIII) commissariats to be typical of trends in the tenement belt and city centre, the demographic pattern and social structure is presumed to have changed comparatively little during the 1914-'18 war.

#### THE INNER-PERIPHERAL ZONE

Composed of the districts of Powiśle (Lower Town), Wola "under municipal administration" (*Wola pod cyrkulacją*) and the rightbank inner-city commissariats of Praga (XIV, XV), wartime demographic decline was very marked in these areas (c. 18% in Praga, approximately 25% or higher in Wola). Inferior living standards and more crowded living conditions compared to those in the Mid-Town tenement belt have been assumed; it will be noted that leftbank inner-city *arrondissements* embracing parts of this transitional zone, such as Okopowa (V) and Mirów (VII), remained densely populated regions in 1919 (cf. cartogram III in Plate IIIa and compare with map "D" in Plate IIIb).

#### THE SUBURBAN ZONE (*STREFA PODMIEJSKA*)

The new municipal districts XVI-XXVI even in 1921 still showed little sign of recovering from the slump brought about by Russian sabotage, German confiscations and wartime

economics. The exodus of suburban residents after 1914 highlights the early stage reached in urban development outside the inner city, as well as lower standards of living among most suburban residents, inferior housing conditions, comparative lack of urban infrastructure, and the fact most inhabitants were of first-generation peasant origins.

7. Observing this threefold division of Greater Warsaw, it would appear that demographic data from 1919 offers a comparatively reliable picture of residential patterns as they had been evolving until 1914 in the city centre and tenement belt, on the grounds that shifts in population would have been kept to a minimum in these quarters (i.e. in I, XII and much of X, representing the centre; all of Grzybów (VIII), the entire built-up area of Nalewki (IV) and most of Nowe Miasto (II), the latter comprising a CBD-discard and tenement infill quarter; together with extensive parts of Leszno (III), Mirów (VII), Towarowa (VI), Koszyki (XI), Aleksandryjska (XIII) and Ujazdów (IX) *arrondissements*).

The peripheral areas of commissariats I, X, XIII and IX (Powiśle), V, III, VII and VI (Wola), together with the rightbank districts of Praga (XIV-XV), would be expected to have recorded significantly higher population densities and mean inhabitants per property or apartment before the war than has come to light in the 1919 property census results (cf. "Street block analysis" in Chapter 4 and Table VII in Annex I). In addition, the specific morphological characteristics of Okopowa (large proportion of wooden buildings, even within the former customs wall) and Towarowa (extensive factory location), apart from ethnographic factors concerning Mirów and Okopowa (Russian-Jewish emigrants), Nowe Miasto, Ujazdów and Praga (families of

Russian officials, bureaucrats and army personnel), demands additional caution when interpreting residential patterns based on the 1919 census data for respective *arrondissements* II, V, VI, VII, IX and XIV/XV (cf. cartogram IV<sup>c</sup> in Chapter 4).

In the suburbs, demographic sources from 1916 and 1919 cannot be expected to accurately reflect residential patterns as they had been unfolding until 1913/1914. If population densities were substantially greater in areas of the outer city undergoing urban development before the outbreak of war, housing densities, inevitably, would have been higher than has been estimated for 1916/1919; a fact which much be born in mind when investigating housing conditions in suburban properties.

8. Population densities before 1914 had fallen below the mean calculation of 408 inhabitants per hectare for Warsaw City in the central commissariats I (Castle), XII (*centralny*) and X (Nowy Świat), representing the historic and commercial cores. This central-business, - but also a traditional residential - area was encircled by the inner-northern, north-western, central-western and western districts (*cyrkule* II, IV, V, III, VII, VI and VIII) where densities exceeded 700 inhabitants per hectare. These districts formed a broad arc of tenement property development encompassing the pre-industrial age and administrative-commercial core (cf. Fig. 2.1)<sup>(129)</sup>, although allowance should be made for large tracts of undeveloped, and thus uninhabited, or industrial land in peripheral parts of the Towarowa and Okopowa.

Population densities in the southern Mid-Town districts (IX/XIII and XI), ranging from 148 to 165 residents per

hectare, have proven to be the lowest among the Mid-Town commissariats; reflecting in part the predominantly wealthy middle-class social structure of this inner-southern area.

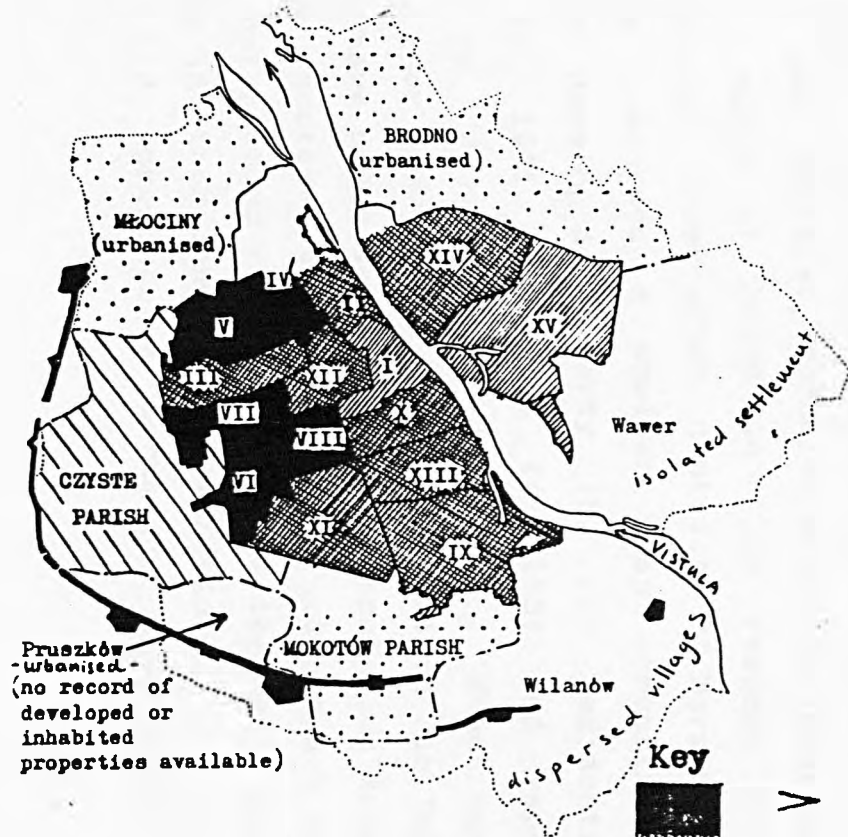
Mokotów *arrondissement*, which may have actually experienced demographic increase between 1913 and 1919, was apparently subject to quite different urban-demographic processes from other suburban districts, such as Wola (XXII) in former Czyste parish. Exceptional population changes in Mokotów at this time suggest the southern-outer city was already becoming an assimilation zone for the neighbouring southern tenement belt districts (IX/XIII, XI), inhabited primarily by Polish or acculturated Jewish propertied or professional social groups which were beginning to move out of the inner city into the suburbs (cf. "Mokotów outer tenement district" in Chapter 8).

9. Intense and consistent tenement housing of the kind composing the built-up areas of Nalewki and Grzybów, but prevailing only in parts of the neighbouring Mid-Town districts, did not completely coincide with the inner city's most densely-populated quarters. In times of hardship, such as the international conflagration of 1914-1918, the residents of Mid-Town tenement properties apparently possessed the means to endure worsening living standards and remained in the city; this clearly was not the case in more peripheral areas of the inner city, or among the young, barely-integrated suburban communities.

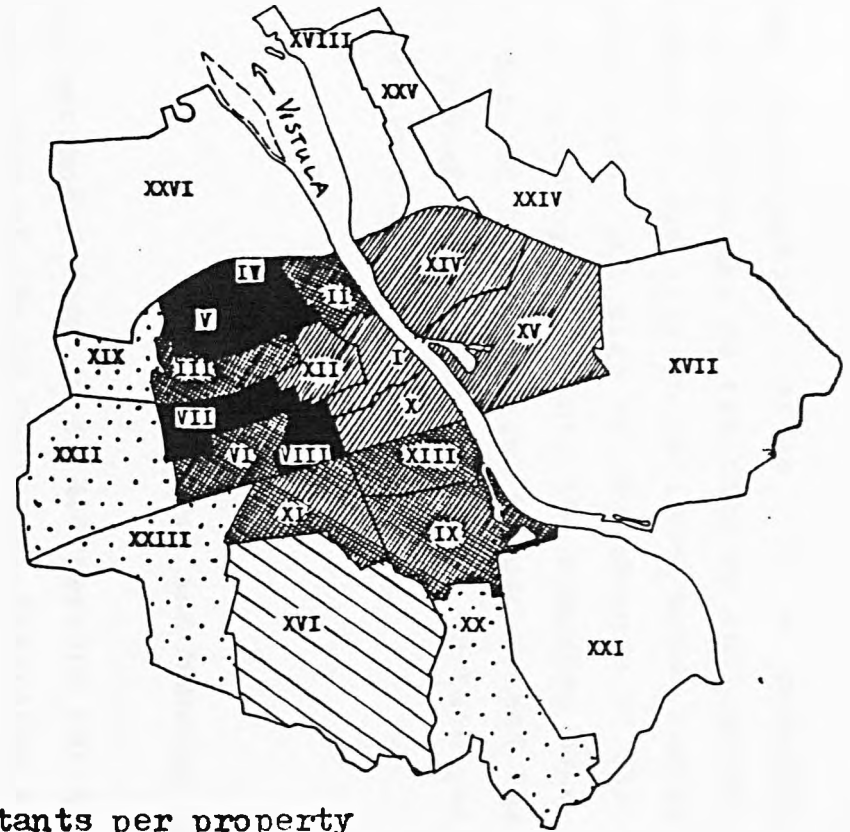
It may be surmised that a correlation existed in Warsaw between demographic stability in the Mid-Town tenement belt and dominant social traits of tenement house residents (cf. in particular "Tenement belt district 9" (XI) and "Tenement belt district 10" (IX/XIII) in Chapter 6).

Figure 1,8 POPULATION DENSITIES CALCULATED ACCORDING TO NUMBERS OF INHABITANTS PER DEVELOPED PROPERTY

B. POPULATION DENSITIES ACCORDING TO POLICE DISTRICT ("CYRKUŁ") AND RURAL PARISH ("GMINA") IN 1913



A. POPULATION DENSITIES ACCORDING TO MUNICIPAL DISTRICT IN 1919



Population Density Range	Inhabitants per Property	Notes
> 150	> 150	
100 - 150	" " "	"barracks" housing threshold ?
75 - 100	" " "	
50 - 75	" " "	
25 - 50	" " "	
< 25	" " "	

Wartime demographic inertia, or a possible slight increment, in Mokotów may be regarded as indicative not only of the movement of socially-established urban residents away from the inner city, but also of the advance of the tenement house as a building form into the suburban zone. A link inevitably existed between social structure and the type of residential property developing in a certain part of the city at a certain time.

#### Building forms and housing densities

In 1913 the estimated density of 408 persons per hectare in the built-up area of the 15 municipal districts exceeded a calculation based on the population in 1919 by more than 50 inhabitants. Grzybów "cyrkuł" (VIII), intensively built-up and featuring very little open, undeveloped land (cf. Fig. 1.3 in Chapter 1B), recorded a mean pre-war density of 708 inhabitants per hectare, compared with 662 inhabitants in 1919. In spite of being in this respect the most densely-populated inner-urban district of Warsaw, Grzybów nevertheless recorded a smaller mean concentration of tenants per developed property (c. 169 residents) than Mirów/VII (c. 194), Okopowa/V (c. 195) and especially Nalewki/IV (c. 223) commissariats (cf. "Mean number of inhabitants per developed property" column in Table 4). Grzybów may have possessed the highest population density in relation to hectaral area, reflecting its compact physical structure, but housing conditions in its tenements were less crowded than in other inner-city districts.

Fig. 1.8 presents a schematic interpretation of



population densities according to the mean number of residents in developed properties, based on administrative divisions within the Greater Warsaw Area in 1913 and 1919. Calculating mean residential densities in developed properties supplements the mapping of property sizes based on mean numbers of apartments (cf. cartogram II in Chapter 2A), as well as providing some indication of variations in housing densities within the metropolitan area. The barracks quality of housing in human terms is underlined by mean pre-war calculations for each Mid-Town commissariat of over 100 residents per developed property (with the single exception of *cyrkuł* I, incorporating the major part of mediaeval Warsaw, but spreading out to include *okręgi* X and XII in 1919 and thus embracing the entire central-business district). Praga again occupies an intermediate position between high housing densities in the Mid-Town and much lower readings for the suburbs. Mokotów, not surprisingly, records a slight rise in the number of inhabitants per property, while housing densities in Bródno fell dramatically from around 60 residents per property in 1913 to below 25 residents in each of the post-1916 *arrondissements* (XVIII, XXIV and XXV).

In view of the minimal damage caused to inner Warsaw's housing stock during the Great War, it has been suggested that the overall number of apartments recorded for each municipal district in 1919 approximately mirrored the situation in 1913 (cf. Chapter 1A). By dividing these figures into the number of residents registered as living in the respective commissariats in these two years, it becomes apparent that housing densities in all likelihood were more crowded in peripheral areas than in districts of consistent tenement property development. For example, pre-war housing

densities calculated in relation to the number of apartments counted during the 1919 property census in Grzybów (falling from 4.69 residents to a flat in 1913 to 4.39 in 1919) were lower than in Mirów (5.36 residents to a flat having fallen far more steeply during the war to 4.14 inhabitants). A similar contrast, allowing for wartime changes in population densities, also arose between Nalewki (4.26 residents per apartment in 1913, falling marginally to 3.99 in 1919) and the neighbouring north-western district of Okopowa (5.13 residents to a flat in 1913 dropping to 4.10 residents in 1919).

From this assessment of population densities calculated according to hectaral area, developed properties and the overall number of apartments, it may be concluded that while tenement districts constituted the most compact and consistently developed part of the built-up area, housing conditions tended to be more crowded in quarters situated on the edge of or beyond the tenement belt. Housing conditions, reflecting living standards, can only be expected to have been yet worse in the previously unincorporated suburban zone, although contrasts would appear to have already arisen between an urban-assimilation area embracing the south-western outer city and generally neglected northern suburbs.

Single-room apartments had come to be recognised as a means of assessing urban overcrowding.<sup>(130)</sup> If the inner-peripheral and suburban districts had indeed been more densely populated before 1914 than has come to light in the results of the 1919 survey, it would be likely that such one-room flats were more prevalent in these urban fringe areas, thereby explaining high population concentrations beyond the tenement belt where building densities were less

intense and not so consistent. Greater numbers of people would seem to have been housed in the apartments of properties situated in urban-peripheral districts, such as (inner) Wola, Powiśle and Praga, even though properties in these quarters averaged out as smaller than those characteristic of the belt of consistent and compact tenement housing.

The above calculations of mean numbers of residents in apartments fail to account for flat sizes and subdivisions into rooms. If housing conditions were generally poorer, and even vastly inferior, to those in the tenement belt it would be expected that apartments in most inner-peripheral or suburban properties tended to be smaller than in the majority of Mid-Town-tenement belt houses. This question can only be examined further by introducing rooms as subdivisions of apartments to the investigation (cf. "Subdividing apartments into rooms" in Chapter 4).

Mean numbers of apartments and residents in developed properties have been taken as indications of prevailing residential building type in a given municipal district, broadly categorised into the small-, medium- or barracks-house.

Mean calculations of rooms in apartments and mean numbers of residents in rooms should help to assess housing densities and may be expected to indicate broad social characteristics of inhabitants (columns 8 and 10 and 9 and 11 respectively in Table VII of Annex I).

The distribution of population in "Old"  
and Greater Berlin

The continental city has been traditionally characterised by a strongly-contrasted divide between compactly built-up, densely-populated inner-urban areas and dispersed, comparatively sparsely-inhabited outer regions. Paris and Rome, spared wartime destruction and rapacious inner-urban redevelopment in the 20th. century, continue to portray such characteristics in their physical and social structures.<sup>(131)</sup> In Berlin an average of 285 inhabitants per hectare was recorded for the inner city ("Alt Berlin") in 1920, compared to a mere 23 residents in the expansive suburban area (811km "squared") incorporated into the city in that year.<sup>(132)</sup> Although these densities compare quite closely with those recorded in 1919 for Warsaw's inner city and suburban areas, the population of "Old" Berlin had already begun to decline before the Great War (1910 peak of 2,000,100), and a drift from the inner city to the suburbs was well underway. Population densities were inevitably high in Berlin's inner city tenement belt, but generally fell below the figure of 708 residents per hectare recorded in Warsaw's 8th. inner-urban commissariat. Moreover, population concentrations in the suburbs, altering only slightly throughout the war and uncertain post-war years, varied from as few as 4.5 persons (Köpenick *Bezirk*) to as many as 200 residents per hectare (Schöneberg *Bezirk*).<sup>(133)</sup> Even though Old Berlin, occupying under one tenth of the Greater Berlin metropolitan area, accommodated more than 1,900,000 citizens, an almost identical number of people was living in the suburban zone at the time of incorporation. The intensively built-up and populous tenement suburbs of

Charlottenburg, Wilmersdorf, Neukölln, Schöneberg and Lichtenberg, lying immediately beyond the administrative limits of "Old" Berlin, which had not not been extended since 1896, reflected the organic spatial expansion of Europe's most rapidly-growing big city.

Suburban development was still in its earliest stages in Warsaw and would not make any significant impact on inner-urban residential patterns until the 1930s.<sup>(134)</sup> With the main exception of Mokotów district, quite different town-planning concepts from those governing the strictly-regulated tenement property speculation shaping Berlin's inner suburbs before 1914 (and even well into the 1920s) were to shape Warsaw's outer districts between the two world wars.<sup>(135)</sup>

Similarities undoubtedly existed in the residential patterns, as well as the inner-urban profile, of Berlin and Warsaw as they had taken shape until the First World War. Nevertheless, parts of the inner city of Warsaw were more densely populated than the built-up inner-urban districts of "Old" Berlin (even though the latter accommodated twice the number of inhabitants of the former), and half of the Greater Berlin populace already lived in the suburbs (compared to an estimated 18.5% in 1913, dropping to c. 13% in 1919). Warsaw's urban form was heavily concentrated on the inner city. The evident lack of proportionate urban growth in the suburbs would appear to have contributed to very high population densities in much of the inner-urban built-up area.

## Chapter 4

## THE CITY OF INTENSIVE TENEMENT PROPERTY BUILDING

In chapters one, two and three building densities (1), inhabited properties (2) and residential patterns (3) as they had taken shape until the First World War have been broadly investigated in the inner city of Warsaw and its outlying districts. Statistical information, based on the 1919 property census and supplemented by demographic data from 1913, has been analysed almost exclusively in relation to the non-functionally defined districts I-XIII (leftbank inner city/"Mid-Town") XIV-XV (Praga), and XVI-XXVI (suburbs). The population and housing data has revealed a broad urban divide between inner and outer city, but has also indicated the existence of a transitional, inner-peripheral zone occupying an area between the compact, intensively built-up inner city quarters and the previously unincorporated suburbs.

The presence of such a hypothetical transitional zone separating a belt of relatively consistent, mainly tenement construction and the suburban, outer periphery has been supported by cartographic sources. It has been suggested that extensive urban depopulation recorded in a number of the inner urban administrative districts during the 1914-1918 war resulted directly from the migration of large numbers of citizens from this semi-integrated inner urban periphery to the countryside, as well as from the suburbs. However, in

Chapter 3 it was possible only to expand on the premise that living conditions were more crowded and generally less favourable in this inner urban twilight area than in such districts characteristic of the tenement housing belt as the 4th. and 8th. *arrondissements*, apart from the more affluent inner southern districts (IX, XIII, XI) and inner urban core (I, X, XII).

In addition, the statistics have revealed fluctuations between the inner city districts in property sizes, apartment subdivisions and numbers of inhabitants per apartment in probable relation to differing functional and social patterns within the intensively built-up Mid-Town (*Śródmieście*).

#### Introducing the Apartments Statistics of the 1919 census

Building statistics in Chapters 1, 2 and 3 of this investigation have been drawn entirely from the first volume; i.e. property statistics volume, of the 1919 survey. In Chapter 2 property sizes were broadly estimated according to the mean number of apartment subdivisions contained in the average property of a given administrative district (referred to alternatively as "commissariat", "okrag" or "arrondissement"). In Chapter 3, the mean number of inhabitants per property was calculated as a method of measuring population densities in relation to the built-up areas of the 26 *arrondissements*, as opposed to merely estimating population distribution in relation to these administrative districts' total territorial

area (cf. Tables 5 and 6 in Chapter 3). As a further indication of fluctuating concentrations of inhabitants in relation to municipal district, the density of residents per apartment was broadly evaluated by dividing the total number of apartments - assuming each of these to be potentially habitable - into the population recorded for each of the municipal districts. The mean number of inhabitants per potentially habitable apartment serves only as an indication of fluctuating concentrations of residents in the built-up area; it does not account for variations in the extent to which apartments were themselves subdivided into rooms.

Apart from failing to adequately investigate the newly-incorporated suburban districts, the 1919 census commission was unable to enquire into all properties in the inner 15 *arrondissements*. It proved impossible to gain access into or find alternative sources of information for 42 properties in districts I-XIII and 10 properties in Praga (cf. Table 3 of Chapter 2); a comparatively insignificant proportion of the total number of 3362 developed properties in the inner city. However, the sum of uninvestigated apartments was, inevitably, much greater.

The results of the apartments survey, compiled from the "Apartment Questionnaires" issued to the heads of individual households in all Warsaw properties, were published in the second, "Apartments Statistics", volume (*Statystyka mieszkaniowa*) of the property census. Summary results of the apartments survey establishing the functions of apartments and individual room units, are presented in Tables 6<sup>a</sup> and 6<sup>b</sup>. Out of



6<sup>a</sup>. Categorisation of apartments according to function

DISTRICT -Okrag-	Number of apartments:							TOTAL NUMBER OF HABITABLE APARTMENTS	Mean number of habitable apartments per dvlpd. property
	Total number of developed properties	occupied in 1919	exclusively residential	hotels, hosp- itals etc.	commercial, public and industrial	INHAB- ITED	NONHAB- ITABLE		
I	2	3	4	5	6	7	8	9	10
I	416	9759	7495	24	1151	1089	411	9081	21.83
II	411	9237	7190	25	1211	811	843	9269	22.55
III	566	15920	12396	15	2091	1418	1350	15852	28.01
IV	231	11151	5966	51	1960	3174	789	8766	<del>29.95</del>
V	413	12868	10382	1	1555	930	2071	14009	33.92
VI	429	13429	11547	6	1136	740	966	13655	31.83
VII	501	17275	14181	15	1731	1348	1132	17059	34.05
VIII	428	14678	10495	26	2123	2034	551	13195	30.97
IX	296	7299	6266	17	649	367	395	7327	24.75
X	465	10644	7577	70	1678	1319	303	9628	20.71
XI	474	13130	10665	65	1478	922	405	12613	26.61
XII	312	7043	3718	29	1193	2103	227	5167	16.56
XIII	473	12561	9644	55	1838	1024	327	11864	25.03
XIV	476	9632	8173	9	824	626	1164	10170	21.37
XV	471	7849	6849	6	533	461	1259	8647	18.36
XVI	418	5263	4650	13	354	246	523	5540	13.25
XVII	337	1189	1070	-	87	32	310	1467	4.35
XVIII	244	1193	1051	-	123	19	329	1503	6.16
XIX	150	1219	1124	-	83	12	453	1660	11.07
XX	311	1893	1664	8	178	43	757	2607	8.33
XXI	136	950	859	-	62	29	81	1002	7.37
XXII	403	4474	4040	-	344	90	1045	5429	13.47
XXIII	413	3572	3327	1	177	67	708	4213	10.20
XXIV	442	2322	2140	1	142	39	850	3133	7.09
XXV	474	2336	2121	8	139	68	452	2720	5.74
XXVI	729	2051	1819	-	176	56	592	2587	3.55
I-XIII	5415	154994	117522	339	19794	17279	9770	147485	27.24
XIV/XV	947	17481	15022	15	1357	1087	2423	18817	19.87
XVI-XXVI	4047	26462	23865	31	1865	701	6100	31861	7.87
Greater Warsaw	10409	198937	156409	385	23016	19067	18293	198165	19.04

Data based on tables III, IV, V, VI and VII of the Apartments Statistics volume of the 1919 property census, (Volume II, publ. December 1923)

a total of 221,403 apartments recorded in built-up properties for the metropolitan area in Volume I of the census publication, it proved possible to locate and define the usage(s) of 217,230 so-called apartments (*lokale*), consisting of inhabited flats, uninhabited commercial, industrial or public-administrative premises and vacated quarters.<sup>(136)</sup> Apart from the internal constructional arrangements of military and state-owned properties to which the census commission failed to gain access, some apartments excluded from the survey consisted of individual, private flats forming part of properties which had been included in the property survey. The occupiers of such flats were likely to have not been present in the city at the time the census was carried out.

In the former City of Warsaw (*arrondissements* I-XIII and XIV-XV), for which the property and apartments survey results were recapitulated in the census publication according to the street blocks, 184,668 apartments were examined out of the total listed figure of 188,773 flat addresses in developed properties. 154,109, or 83.45%, of all apartments recorded in annex table IV of the census publication, served exclusively residential or semi-residential purposes; 18,366 (9.95%) fulfilled purely commercial, industrial or public-administrative functions, while 12,193 (6.6%) had fallen into disrepair during the war years and were either uninhabitable or not in use. (It should be born in mind that a significant number of such flats in 1913 may have also been considered to be "vacant", because they were not occupied by tenants, or in newly-built properties which had yet to become

tenantable).

In the suburbs, the proportion of "vacated" premises; i.e. 6100, or 18.73% of the 32,562 apartments investigated, reflects the greater degree of dilapidation beyond the inner city, providing further proof of the urban depopulation which took place primarily in Warsaw's peripheral areas - inner and outer - during the Great War. The very small proportion of purely commercial, industrial and public-administrative premises in *arrondissements* XVI-XXVI (701; i.e. 2.15% of the total), suggests a lack of infrastructure in the suburbs, although it should be remembered that many of the 6100 "vacated" premises undoubtedly represent factory buildings and workshops closed down or bankrupted during the war years.

An important feature of 19th. century Warsaw's social and functional structures is the very widespread accommodating of residential together with commercial, industrial or other activities in a single apartment and even room. In the Mid-Town (I-XIII) there were nearly 20,000 such mixed-residential apartments; i.e. c. 12% of the total number of flats, compared to c. 7% in Praga and c. 6% in the suburbs. The mixed functions of individual apartments emphasises the multi-functional character of the inner-urban tenement house, where apartments serving a variety of often mixed functions apparently occurred most frequently, as well as of smaller, peripheral and sub-urban composite building forms. 71.33% of Mid-Town flats, nevertheless, served purely residential purposes, proportionally rising slightly in the suburbs (73.29%), and Praga (75.47%).

In an attempt to recreate as far as possible the

situation in Warsaw's internal urban structure as it had existed before the outbreak of World War I, the number of vacant apartments recorded in 1919 has been combined with the total of exclusively- and mixed-residential flats, designated in tables 6<sup>a</sup>, 7 and 8 as "habitable apartments". It has been assumed that most apartments had served, at least in part, residential functions before the social changes effected during that war. It is also necessary to consider the 4173 apartments excluded from the 1919 survey, even though a predominant proportion of these (3075) was located in the Mid-Town and belonged either to the state or military authorities. The mean calculation of habitable apartments per developed property (based on the combined figures for each municipal district of exclusively- and mixed-residential flats, including vacated or previously vacant apartments, but excluding uninhabited, commercial, industrial and administrative premises) represents a revised calculation of the one made for the municipal districts in Table 3 of Chapter 2. Each Mid-Town *arrondissement*, with the single exception of the central-administrative commissariat (XII), continues to record a predominance of "barracks"-type housing. However, these revised mean calculations no longer reflect a true picture of average property sizes, since it is evident that inner city properties, characterised by the tenement house, and even inner-peripheral and suburban housing, incorporated commercial, light-industrial-manufacturing and other functions - accommodated both in uninhabited and semi-residential premises - in their basements and lower storeys.

## Factories, small industrial premises and workshops

It has been observed that the census commission failed to make adequate provisions for enquiring into industrial buildings (cf. Chapter 1A). This failure would suggest that non-residential premises recorded in developed properties in 1919 served predominantly commercial functions or consisted of private craftsmen's workshops, rather than space for industrial production. The potential problem of mistaking industrial premises for retail outlets, banks or offices would seem to be avoidable through the identifying of major factory sites, which tended to be removed from concentrations of commercial activity (cf. cartogram IV<sup>b</sup>).

Larger factories possessing extensive shopfloors may be located by referring to detailed cartographic sources or factory registers, which also recorded the number of employees. (137) Warsaw did not develop as a factory town. Industrial location, initially focussing along the Vistula's left bank (Powiśle district), from the 1870s took shape near a purpose-built goods depot station on Towarowa St. (in the later 6th. *arrondissement*), but primarily behind the main railway terminii and along a semi-circular railroad circumscribing the western leftbank and Praga inner city districts, (cf. Plate IV<sup>b</sup>). (138)

In addition, an early-industrial, manufacturing district had grown up west of the pre-19th. century built-up area (later defined by *arrondissements* VI, VII and VIII), while numerous smaller industrial firms employing less than 50 workers had arisen from the 1850s in southern-inner city districts, relocating in some instances further afield in face of advancing property development from the 1870s. Many

such smaller factories, however, employing the largest proportion of Warsaw's industrial workforce even in 1914, had become interwoven and partially incorporated into the tenement house urban pattern of most inner city districts; especially *arrondissements* IV, VII, VIII, and XI, apart from inner-peripheral areas represented by Powiśle, (inner) Wola and Praga.

Basement and groundfloor premises in tenement properties were frequently rented out by proprietors as handicraft workshops and ateliers, as well as retail shops, wholesale stores or even limited-space warehouses. Poorer craftsmen and shopkeepers rented singleroom apartments in which they both lived and worked.

#### Subdividing apartments into rooms

Introducing the room, or chamber, (*izba*) to the investigation as the smallest unit in property statistics permits a detailed analysis of the subdividing of apartments in relation to property types according to administrative district (cf. Table 6<sup>b</sup>). Reference to annex table IV of the 1919 census publication allows an investigation in the inner city of varying degrees of tenement construction and apartment sizes according to street block.

Mean figures of habitable rooms per habitable apartment calculated for the 26 administrative districts already indicate significant variations in flat sizes; in the Mid-Town the average number of rooms per habitable apartment ranged from just under 2 to 3.5. The margin between the total number of habitable apartments and

6<sup>b</sup>. Categorisation of rooms according to function

DISTRICT -Okrag-	Number of rooms of							TOTAL NUMBER OF HABITABLE ROOMS IN 1919	Mean number of habitable rooms per habitable apartment
	Total number of habitable apartments	occupied in 1919	exclusively residential	hotel, hosp- ital etc.	commercial, public and industrial	inhab- ited	nonhab- itable		
1	2	3	4	5	6	7	8	9	
I	9081	24666	16868	194	4308	3296	21370	2.4	
II	9269	19798	14675	257	3205	1661	18137	2.0	
III	15852	37394	27637	189	6348	3220	34174	2.2	
IV	8766	29109	17143	272	6441	5253	23856	2.7	
V	14009	24986	19449	16	3848	1683	23303	1.7	
VI	13655	26705	22206	64	2896	1539	25166	1.8	
VII	17059	38280	30369	192	4959	2760	35520	2.1	
VIII	13195	42167	29666	491	7533	4477	37690	2.9	
IX	7327	19010	15580	151	2393	896	18124	2.5	
X	9628	34083	21198	854	7336	4695	29388	3.1	
XI	12613	39645	31036	851	5571	2187	37458	3.0	
XII	5167	23753	11914	489	5612	5738	18015	3.5	
XIII	11864	38782	28208	727	7672	2175	36607	3.1	
XIV	10170	19560	15837	93	2240	1390	18170	1.8	
XV	8647	15169	12599	208	1482	880	14289	1.7	
XVI	5540	9446	7583	195	952	716	8730	1.6	
XVII	1467	2158	1832	-	230	96	2062	1.4	
XVIII	1503	2247	1823	-	347	77	2170	1.4	
XIX	1660	1677	1430	-	183	64	1613	cl.0	
XX	2607	3179	2493	142	407	137	3042	1.2	
XXI	1002	1507	1321	-	145	41	1466	1.5	
XXII	5429	6688	5612	-	845	231	6457	1.2	
XXIII	4213	4946	4380	9	435	122	4824	1.5	
XXIV	3133	3749	3225	20	384	120	3629	1.2	
XXV	2720	4467	3797	108	410	152	4315	1.6	
XXVI	2587	3546	2910	-	458	178	3368	1.3	
I-XIII	147485	398388	285949	4747	68122	39570	358318	2.4	
XIV/XV	18817	34729	28436	301	3722	2270	34459	1.8	
XVI-XXVI	31861	39742	36406	474	4796	1934	41676	1.3	
Greater Warsaw	198165	472859	350791	5522	76640	43774	434953	2.2	

Data based on tables III, IV, V, VI and VII of the Apartments Statistics volume of the 1919 property census, (Volume II, publ. December 1923)

habitable rooms was much smaller in the suburbs, reflecting a predominance of singleroom flats. The exceptional situation in Koło *arrondissement* (XIX) where the estimated figure of habitable apartments actually exceeds the number of habitable rooms demonstrates at least 47 of the apartments vacated between 1914 and 1919 had previously served nonresidential functions. This northern extension of Woła suburb, similar to large parts of the urbanising outer city, consisted of cottages of "medium-sized" houses of between 3 and 20 mainly single-room apartments, including workshops and small manufacturing businesses. (139)

It should be noted that the proportion of rooms serving commercial, industrial or other non-residential functions, but also providing housing, was particularly high in the Mid-Town (c. 19% of all habitable rooms), compared to c. 11% in Praga and c. 8.75% in the suburbs. The number of such multi-functional rooms (76,640) far exceeded the total number of exclusively commercial, industrial, as well as public-administrative, rooms (43,774), revealing a predominance in Warsaw's functional structure of small retail outlets and workshops which were also inhabited by their owner proprietors, including their families. In Nowy Świat *arrondissement* (X) nearly one quarter of all habitable rooms served additional, non-residential functions. The 10th *arrondissement* represented at this time an important part of the central-commercial district; the recording in 1919 of 7336 evidently retail or office rooms which also provided accommodation for tenants, (compared to 4695 uninhabited shops, offices, etc.) suggests Warsaw's CBD - as far as such a commercial core might be proven to have taken shape and be possible to delineate - was dominated by small shops and private offices located in tenement buildings, or



even older housing predating the study period. The 4th *arrondissement* of Nalewki, recording the highest proportion of mixed-residential commercial or light-industrial; i.e. workshop, premises (27%) was inhabited almost entirely by a Jewish population.

Data analysis of the functional capacities of habitable and inhabited apartments sheds much light on characteristic aspects of the city's internal structure. Introducing individual rooms as subdivisions of habitable apartments, vastly outnumbering the small proportion of commercial or other non habitable premises, provides a method of examining housing conditions and relating them to the urban form of Warsaw as it had been evolving during the late-19th. and early-20th. centuries.

The outer city in relation to the study area

Investigation of metropolitan Warsaw's internal structure has revealed a generalised, but strongly-defined urban divide between the former administrative area of Warsaw City and its suburbs. Summary statistics for the outer city from the years 1913, 1916 and 1919 (cf. rural parishes or *arrondissements* XVI-XXVI in tables 1-2, 3 and 4) underline the great contrast in urban form and demographic patterns prevailing beyond the densely built-up inner city districts; reflecting a relative or total absence of integrated growth and property construction in the suburbs during the study period. Examining the suburban physical form, as such, lies beyond the scope of a study devoted to tenement building in the urban profile.

Nevertheless, the inner city of tenement housing cannot be investigated in complete isolation from its urbanising outskirts (even though it is arguably most desirable to focus on the tenement house as a building form constituting the fibre of an urban geomorphological model and a certain urban order from which the suburbs were evidently excluded). The inner (tenement) city landscape apparently created a physical-urban and social, as well as economic, hinterland; a hinterland which lay immediately beyond the pre-1916 city limits in the suburban zone. Furthermore, it may be argued that the inner city, at least in certain parts, had been built up to saturation point and had already begun as far back as the 1890s to spill over beyond the administrative borders. Equally, it could be contended that urban expansion, following the westerly and southerly orientation left open to it by Russian military planning, gradually spread out beyond the minimally expanded municipal boundaries.<sup>(140)</sup> Varying degrees of suburban development need, therefore, to be taken into account.

Significant moves had been taken prior to 1914 to integrate the western and southern outskirts - comprising after 1916 (outer) Wola (XXII), Ochota (XXIII) and Mokotów (XVI) *arrondissements* - into the urban infrastructure. Comprehensive analysis of the urban processes at work prior to 1914 demands these districts be taken into account, undergoing as they were delayed, but large-scale property construction from the beginning of the 20th. century. The northern and south-easterly extensions of this outer, semi-tenement belt, represented from 1916 by Koło (XIX) and Sielce (XX) *arrondissements*, were still largely characterised by smaller, overwhelmingly wooden properties; as indeed were the outlying reaches of *arrondissements* XXII,

XXIII and XVI.

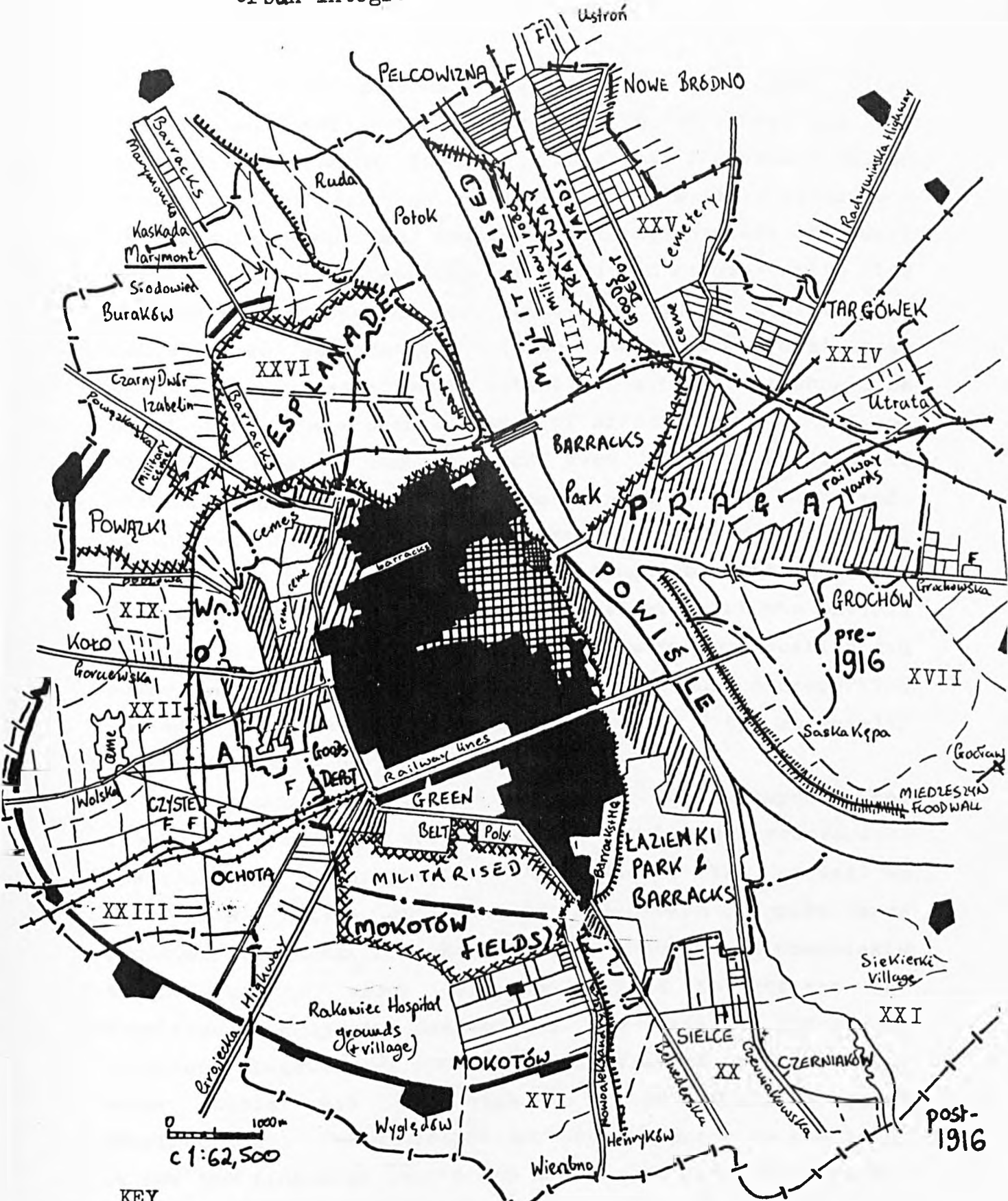
Two additional areas of the suburban zone undergoing a secondary degree of urban development, but effectively in isolation from the inner city, were the so-called urbanising regions of Bródno and Miociny parishes, comprising after 1916 *arrondissements* XVIII, XXIV and XXVI (Bródno) and XXVI (Miociny-Marymont).<sup>(141)</sup> The northern rightbank suburb-townships of Pelcowizna (XXIII), Targówek (XXIV) and Nowe Bródno (XXV) arose mainly during the immediate pre-war years. The physical form of these outlying northern suburbs straddling the Vistula was dominated by dispersed, wooden and groundfloor or 1-storey housing composed of between 1 and 10 predominately singleroom apartments.





Peripheral urban growth of this kind was the inevitable outcome of the building restrictions imposed by the Russian authorities on Warsaw's spatial expansion beyond its administrative boundaries until at least 1911. Wooden housing, however, should be recognised as belonging to an urban form common to many Eastern European cities, especially in Central Poland and Russia. The importance of wooden construction in Warsaw has been virtually ignored by Polish historians.<sup>(142)</sup> If the tsarist authorities encouraged the raising of wooden houses in the suburbs and tolerated its presence in the actual city, Polish building regulations of the pre-1864 home rule period had striven - at least theoretically - to replace such housing in Warsaw and to prevent the further use of wood in eternal construction; a policy immediately reinforced (at least theoretically and in relation to residential building) after the First World War.<sup>(143)</sup> Wooden housing and outbuildings associated with the pre- and early-industrial town house, such as stables, coach houses and sheds, had largely

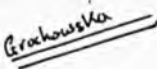

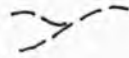
disappeared from most inner city quarters as a result of the urban transformation taking place during the 19th. and 20th. centuries. The 1919 survey, nevertheless, reveals that wooden houses and service buildings continued to constitute a major element in the urban profile of certain inner city districts; particularly in Powiśle, (inner) Wola and Praga, surviving thereafter in ever decreasing numbers into the post-1945 era.

The combined wooden districts of Bródno parish and the post-1911 shanty towns of Marymont-Młociny accounted for a very significant 20% of all developed property divisions in the metropolitan area. This secondary urban-physical form contrasted greatly with the multi-storey, "barracks"-type housing of inner Warsaw. There is little to indicate in the 1919 survey results that the wooden townships of northern-surburban Warsaw were evolving into a tenement-dominated or partially-tenement house urban landscape as were Mokotów, Ochota and (outer) Wola. If population estimations for 1913 may be reliably matched with the property and apartments statistics form 1919, these northern wooden suburbs reveal exceptionally high concentrations of inhabitants per room (partially offset by the apparent prevalence of expansive singleroom family apartments reminiscent of communal rural cottages). This antithetic urban pattern will need to be examined as a probable offshoot of the urban processes creating the "tenement-house-city" (*Mietskasernestadt*) of inner, Mid-Town Warsaw. It has been seen in Chapter 3 that the extent of urban depopulation estimated for Nowe Bródno, Targówek and Pelcowizna districts between 1913 and 1919 was proportionally greater than in any other surburban or inner city district of Warsaw (cf. plate III<sup>b</sup>).

Figure 1.9 :  
Urban integration of the outer city upto 1916



- KEY**
-  pre-industrial age urban core
  -  Mid-Town tenement belt
  -  zone in transition/inner-urban periphery
  -  militarised land

- THE SUBURBAN STREET NETWORK**
-  main thoroughfares
  -  side streets
  -  fieldroads + dirt tracks

The least-developed areas of the outer city, represented most evidently by the 17th. (Grochów) and 21st (Czerniaków) *arrondissements* - which had previously fallen under the jurisdiction of Wawer and Wilanów parishes - incorporated dispersed, unpopulous village-hamlets and small housing colonies made up of so-called single-family (1-3 apartments) or the smaller, inevitably wooden, medium-sized house (4-10 apartments). These essentially rural areas demand little additional attention, although it should be noted that the wooden cottages of *arrondissements* XVII and XXI accommodated similar, and even greater numbers of residents per single room than in the more deprived, peripheral districts of the inner city, suggesting housing densities in the suburbs were often comparable with those of the poorest inner city regions, in spite of the obvious differences in urban structure. The census publication did point out that single-room flats in suburban properties tended to be more spacious than in the Main City; especially in rural cottage building types.

Although vast tracts of rural land composed the greater territorial areas of most suburban *arrondissements* (particularly in Marymont (XXVI) and Sielce (XX), as well as in Ochota (XXIII) and Mokotów (XVI) which occupied large enclaves of former Pruszków parish), Grochów and Czerniaków *arrondissements* above all had failed to attract any significant property development, as well as industrial location, because - occupying the Vistula lowlands - the water table was too high to allow extensive solid construction. The municipal authorities prior to the 1920s lacked the financial capital to drain such great expanses of land, no matter how desperately the overcrowded and intensively built-up inner city might have needed them. (144)

The city's southward growth orientation was thus further directed away from the river, remaining to a larger degree above the river escarpment. The suburb of Mokotów expanded more rapidly and on a larger scale than any other outer-urban district between the two world wars<sup>(145)</sup> (with the single major exception of Marymont, incorporating Żoliborz new-district, while Grochów also experienced rapid demographic increase during the 1920s and 1930s).

One major project undertaken before 1914 in those parts of Wawer parish incorporated after 1916 into the metropolitan area was the projecting of an earthen embankment, known as the Miedzeszyń Wall (*Wał Miedzeszyński*) which, following the Vistula, protected the rightbank lowlands from flooding. This significant municipal undertaking, connected with the raising of the "Third" Bridge to link the leftbank southern and central districts with the East Bank, was a preliminary step in the envisaged, rationally-planned and expansive southern rightbank district of Saska Kępa-Grochów-Gocław, the realisation of which was delayed by financial insolvency to be ultimately dealt a death-blow by the outbreak of international hostilities.<sup>(146)</sup>

#### Introducing street block analysis

An annex table placed in the second, Apartments Statistics volume of the 1919 census publication presented some elementary results from the property survey in accordance with a breaking down of the inner 15 administrative districts, constituting the pre-1916 City of Warsaw, into

7. The study area - inner peripheral zone - and suburbs

Urban and sub-urban zones	Total number of				Total number of residents in 1919 (brackets in 1913)	Mean number of :			
	developed properties	habitable apartments	unhabitable apartments	habitable rooms		habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10
Core-CBD	1202	22921	4657	67153	96714 (107364)	19.1	2.9	80.5 (89.3)	1.4 (1.6)
Tenement belt	3325	101195	10733	257039	478853 (540457)	30.4	2.5	144.0 (162.5)	1.9 (2.1)
Powisłe	392	10011	367	15895	38705 (44924)	25.5	1.6	98.7 (114.6)	2.4 (2.8)
Inner Wola	420	10042	347	14512	39396 (46916)	23.9	1.5	93.8 (111.7)	2.7 (3.2)
Enclave-XI	49	1628	80	2486	6730 (7482)	33.2	1.5	137.3 (152.7)	2.7 (3.0)
Praga (XIV-XV)	947	18817	1087	32459	74606 (90375)	19.9	1.7	78.8 (95.4)	2.3 (2.8)
Citadel	?	no information							
Green belt ("okrag" XI)	16	345	14	715	1549 (1722)	21.6	2.1	96.8 (107.6)	2.2 (2.4)
Mokotów	418	5540	246	8730	19897	13.3	1.6	47.6	2.3
Outer Wola	403	5429	90	6457	17622	13.5	1.4	47.3	2.7
Ochota	413	4213	67	4824	19596	10.2	1.4	47.4	4.1
Sielce	311	2607	43	3042	7637	8.4	1.2	24.6	2.5
Koło	150	1660	12	1613	5598	11.1	1.0	37.3	3.5
Bródno	1160	7356	126	10114	19956	6.3	1.4	17.2	1.9
Młociny	729	2587	56	3368	11332	3.5	1.3	15.5	3.4
Grochów	337	1467	32	2062	5556	4.4	1.4	16.5	2.6
Czerniaków	136	1002	29	1466	2450	7.4	1.5	18.0	1.7
STUDY AREA	4527	124116	15390	324192	575567 (647821)	27.4	2.6	127.1 (143.1)	1.8 (2.0)
Inner Periphery	1824	40843	1895	66167	160986 (190789)	22.4	1.6	88.3 (104.6)	2.4 (2.9)
Suburbs I	1234	15182	403	20011	57115 (82000)	12.3	1.3	46.3 (66.5)	2.9 (4.1)
Suburbs II <sup>a</sup>	461	4267	55	4655	13235 (20000)	9.2	1.1	28.7 (43.4)	2.8 (4.3)
Suburbs II <sup>b</sup> (wooden, isolated districts)	1889	9943	182	13288	31288 (80000)	5.3	1.4	16.6 (42.4)	2.3 (6.0)
Rural townships	473	2469	61	3628	8006 (unknown)	5.2	1.5	16.9	2.2
WARSAW METROPOLIS	9708	196820	17986	432135	846197 (1020610)	20.3	2.1	87.2 (105.1)	2.0 (2.4)



PRO,

# partition of the inner city based on street block analysis

MADEL ESPLANADE  
(within the  
inner city)

SITE OF FAWORY -  
ZOLBORZ DISTRICT

**STUDY AREA**  
(City centre + tenement belt)

Barracks

River bridgehead  
(Mariensztat)

flood  
lands

Park

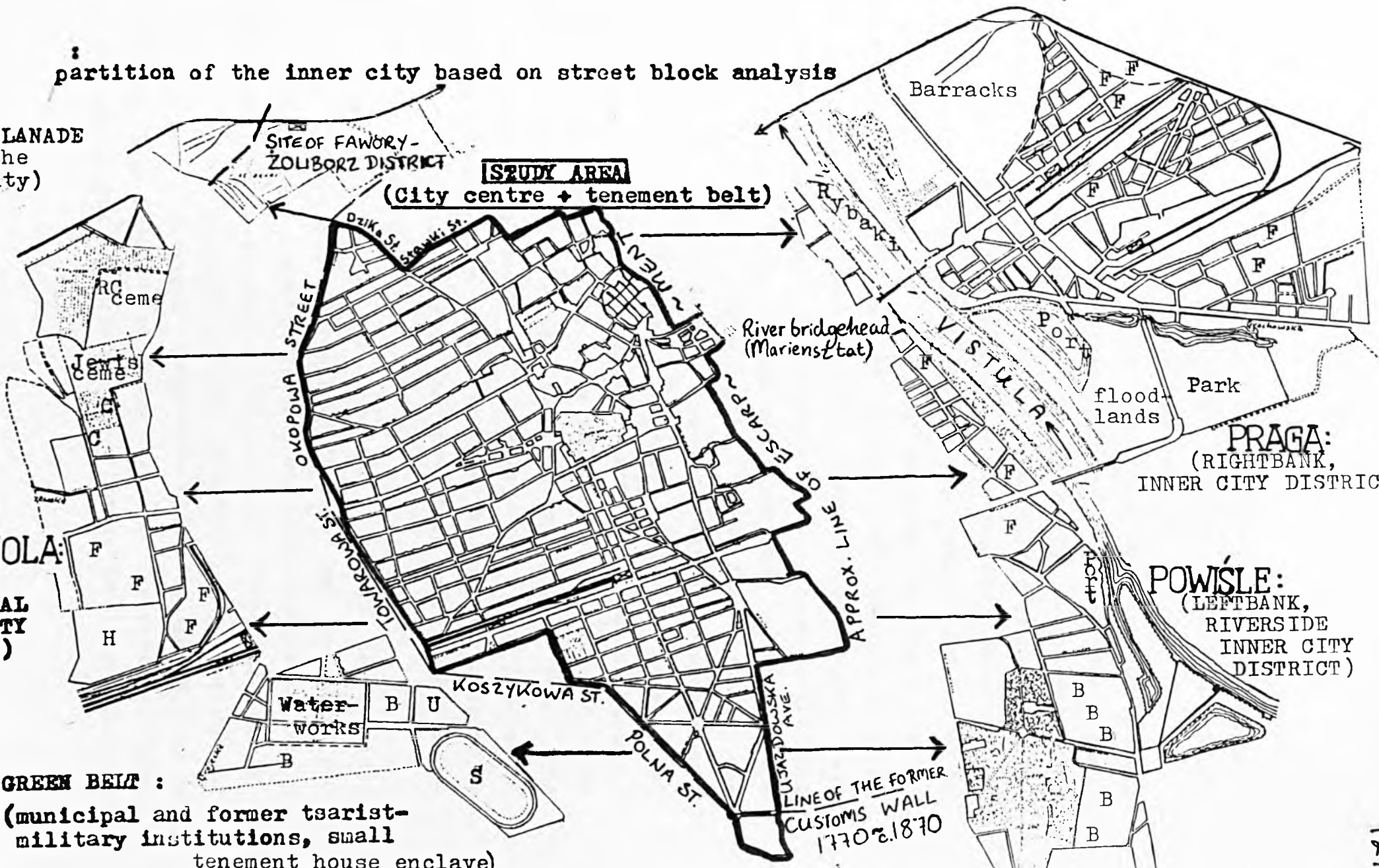
**PRAGA:**  
(RIGHTBANK,  
INNER CITY DISTRICT)

**INNER) WOLA:**  
WESTERN,  
PERIPHERAL  
INNER CITY  
DISTRICT)

**POWISLE:**  
(LEFTBANK,  
RIVERSIDE  
INNER CITY  
DISTRICT)

**GREEN BELT :**  
(municipal and former tsarist-  
military institutions, small  
tenement house enclave)

LINE OF THE FORMER  
CUSTOMS WALL  
1770 & 1870



street blocks. The annex table contents have been condensed into tabular form at the end of this chapter, (cf. Annex Table VII of the statistical appendix to Part I).

Table 7 presents a definitive breakdown of Greater Warsaw into zones of contrasting levels of urban development based on the processing of property, apartments and demographic statistics recorded at street block scale for the inner city. Census data for the suburbs, where no such subdivision into street blocks was made, have had to be investigated at the scale of municipal districts (*okręgi XVI-XXVI*). Sub-areas of primary and secondary urban integration, isolated, wooden township development and predominantly rural *arrondissements* have been established for the outer city. Street block analysis has permitted a considerably more comprehensive subdividing of the inner city into a central-historic core, a belt of overwhelmingly "barracks"-type tenement housing and an inner-urban periphery or transition zone. A zone of intensive tenement house development with an urban core may be thus set aside for detailed investigation, separated from the inner-peripheral zone where single- or two-room apartments predominated in developed properties and greater numbers of residents per single room unit have been calculated than in the true tenement belt.

Recording even the broadest findings of the 1919 census in relation to street blocks has permitted the identifying of inner-peripheral quarters located in the 13 Mid-Town *arrondissements*; i.e. (inner) Wola and Powiśle, which reveal property sizes, apartment subdivisions and residential densities comparable with those prevailing in the East Bank district of Praga (*XIV-XV*). Delineating these inner-peripheral districts as a transitional zone between

inner-central, leftbank Warsaw and its suburban outskirts is intended to allow a more concentrated analysis of the physical form, functional characteristics and social structure of the inner-urban tenement belt with its historic, administrative and commercial core. The zone in transition, composed of partial-tenement/"barracks" housing development, smaller properties - including numerous wooden - properties and the greater part of Warsaw's industrial location, had evidently expanded beyond the pre-1916 municipal boundaries into Mokotów, Ochota and (Outer) Wola. The southern and western leftbank outskirts are designated in Table 7 "inner suburbs". In view of a lack of property and demographic data at street block scale, this previously unincorporated area of the transitional zone has had to be territorially delimited by post-1916 boundaries of *arrondissements* XVI, XXII, and XXIII.

The 13 leftbank inner urban districts were divided up into 351 street blocks (column 1 of Annex Table VII). Building densities in the inner-rightbank districts (XIV-XV) proved more dispersed, prompting the original census commission to merge certain street blocks into larger spatial units, although the overall number of 83 investigative components for Praga was still proportionally high in relation to the developed properties and inhabitants it represented.

A synthesis of the most relevant street block data from 1919 has been compiled in Annex Table VII with an aim to revealing variations in property size and function(s), apartment subdivisions and housing densities within the inner city, especially in the eventual tenement belt area of focussed investigation.

The number of developed properties (column 2) has been

taken as a standard building unit for measuring the extent to which a given street block was built-up. Developed properties; i.e. developed building plots, have proven to be virtually synonymous with housing, expressed in the census as inhabited properties (cf. tables 1 and 2 in Chapter 1). Uninhabited, administrative or public buildings, such as municipal or state institutions, army headquarters, market halls, railway stations, theatres, libraries etc., as well as private factories and warehouses, comprise a very minor proportion of the overall number of developed properties; i.e. 122, compared to 6240 tenantable inner city properties. Such exclusively non-residential building types may be individually identified, whereas other such primarily public, commercial, industrial or cultural edifices providing accommodation for caretakers or a small number of employees with their families will have been recorded as single-, two- or three-room apartment properties. A separate category for hospital, hotel, boarding school and other such properties, housing people on the whole communally and on a temporary or seasonal basis, was recognised in the 1919 survey (cf. tables 6<sup>a</sup> and 6<sup>b</sup>).

Furthermore, it has become apparent during the processing of data at street block scale that military barracks were at least partially included in the census, even though soldiers stationed in Warsaw at that time were not counted as urban residents. In most cases the Polish army had taken over the former tsarist barracks and military lands following the disarming in November 1918 of the German Wehrmacht; not least the Alexander Citadel, excluded altogether from the 1919 census, and the Mokotów Fields. Some military barracks and a number of factories shut down during the war had been handed over to the municipal

authorities and were being used in 1918 to provide temporary shelter for displaced or homeless people.<sup>(147)</sup> Where possible, factories, whether incorporating housing or not, together with army barracks and hospitals, have been excluded from this investigation. Street blocks incorporating both private residential properties and public, military or industrial building complexes are expected to portray characteristics potentially at variance with the built-up structure, apartment subdivisions and residential density norms prevailing in street blocks of predominantly or even exclusively tenement housing.

Inhabitable apartments (column 3 of Annex Table VII), recording the number of semi-residential flats which served a secondary function (shop, private office, workshop etc.), as well as purely residential apartments, also include flats which had been vacated during the war years or had remained vacant since 1914. Apartments providing exclusively residential accommodation tended to be proportionally greater (cf. Table 6<sup>a</sup>), although this depended on the extent to which properties in a given street block functioned as housing. Retail, banking, handicraft and industrial activities accommodated in non-residential premises, (but very rarely in non-residential properties even in the commercial centre or in areas of the city which may be recognised to have been primarily industrial in character), are represented by column 4. These uninhabitable premises indicate the degree of functional specialisation in groups of developed properties recorded in street blocks. The 1919 census drew no distinction between workshops and retail outlets or small-business offices in its categorising of uninhabited or semi-residential premises fulfilling other functions beyond housing people. Identifying property

functions therefore depends on detecting variations in functional characteristics within the tenement belt - in the form of functionally-defined districts - or even arising between neighbouring street blocks.

Habitable rooms alone were identified in the property survey, and these have been listed in column 5 of the annex table. The original Apartments Questionnaire made provisions for distinguishing between exclusively residential and mixed-residential rooms. There were many cases of singleroom apartments also accommodating shops, offices or workshops; a valuable source of information in evaluating social conditions, as well as the functional structure, of certain inner city street blocks and quarters (cf. Table 6<sup>b</sup> for a generalised summary in the Greater Warsaw area).

The methodological imperative considered in Chapter 3 of correlating the 1919 property census data with population distribution prior to the outbreak of World War One has necessitated the inclusion in this statistical summary of an estimation of inner-city population for 1913. It might be tantamount to academic pedantry, as well as unrealistic, to evaluate the number of residents in 1913 according to street block. An estimate, therefore, has been made in relation to 31 inner city sub-areas delineated for the purpose of analysing building patterns, apartment subdivisions, functional characteristics and residential patterns in the tenement belt and its urban periphery. These sub-study areas are composed of between 4 and 32 street blocks (cf. Fig 2.2 in Chapter 5). The estimated number of inhabitants in 1913 for these sub-study areas was calculated according to the rates of urban depopulation recorded between that year and 1919 in the 15 inner city municipal districts; e.g.

6.54% in arrondissements I, II, and XII, 17.45% in XIV and XV, 19.39% in IX and XIII etc. (cf. Table in Fig. 1.6 of Chapter 3). The sum population of these 31 study units estimated for 1913; i.e. 838,610, falls some 6,500 people short of the actual figure for that year (845,130); a discrepancy of under 1%.

In accordance with dividing the inner city up into street blocks - as corresponding with concentrations of developed properties defined by intersecting streets - building-type patterns and the internal structure of Warsaw as a city of tenement housing has been analysed on the basis of mean calculations made for the following components:

- (a) the combined number of habitable apartments and non-residential premises in developed properties;
- (b) non-residential, commercial and small-scale manufacturing premises in developed properties;
- (c) vacated and empty apartments in developed properties;
- (d) the number of rooms per inhabited apartment in developed properties;
- (e) numbers of residents in developed properties in 1913 (estimated) and 1919;
- (f) numbers of residents in inhabited rooms.

These calculations, presented in columns 8, 9, 10 (10a) 11 and (11a) of annex table VII, and summarised in Table 8, have been mapped out in corresponding cartograms VI a, b, c, d, e and f.

Investigating building types in inner city  
street blocks

The plotting of varying levels of property development according to street block, presented in cartogram IV<sup>a</sup>, reflects an advance in the overall investigation from establishing broad patterns in inner city physical form based on municipal district (cf. cartogram II in Chapter 2).

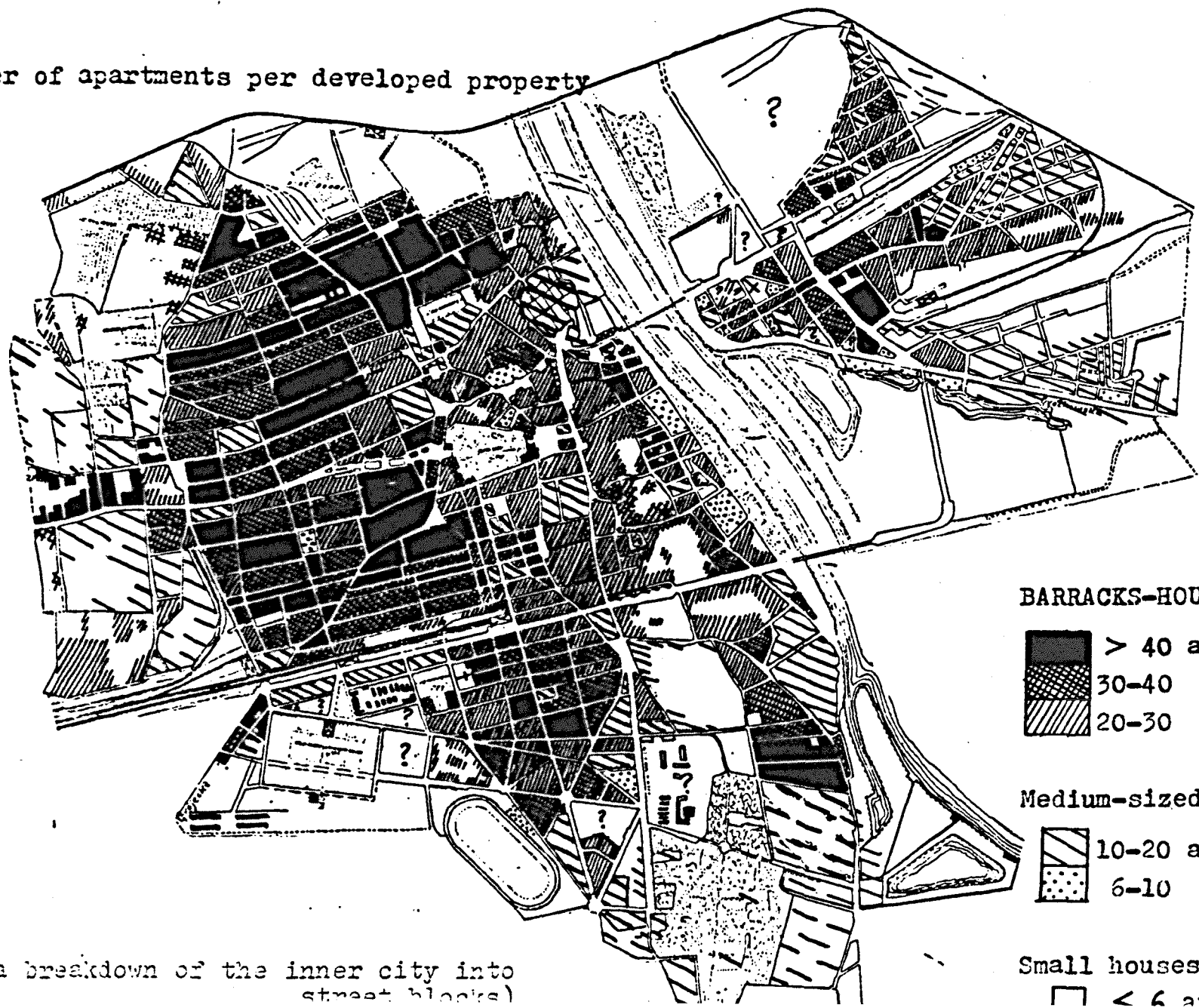
The number of developed properties recorded in every inner city street block has been divided into the combined total of residential/mixed-residential apartments and non-residential, commercial, industrial or public-administrative premises (columns 3 and 4 of annex table VII) to obtain an average property size for each street block. The classification in Chapter 2 of developed properties based on numbers of apartments for each of the 15 inner municipal districts has already revealed that "barracks"-type properties (i.e. containing more than 20 apartments) prevailed throughout the inner city, including Praga. Applying the same method of classifying the built-up area to the 435 inner city street block components establishes a considerably more detailed and complex pattern of intensive property development. This simulated urban pattern, mapped out in cartogram IV<sup>a</sup>, varied markedly from one or a group of street blocks to another, revealing a patchwork of fluctuating dominant property-types which is considerably more illuminating than the oversimplified picture in cartogram II based on municipal districts.

Data recorded at street block scale is thus drawn upon to identify building types prevailing in a significantly reduced spatial area within the built-up inner city. The street block provides as a spatial reference in the






Diagram IV<sup>2</sup>:



Mean number of apartments per developed property



BARRACKS-HOUSING STREET BLOCKS

	> 40	apartments	per	property
	30-40	"	"	"
	20-30	"	"	"

Medium-sized properties

	10-20	apartments	per	property
	6-10	"	"	"

Small houses and undeveloped land;

 < 6 apartments per property

According to a breakdown of the inner city into street blocks)

ANALYSIS OF THE LANDSCAPE OF THE INNER CITY OF  
"BRITAIN" AND INDIVIDUAL TENEMENT HOUSES  
CONSTITUTING THE DOMINANT BUILDING FORM IN THE INNER CITY  
LANDSCAPE.

The abstract statistical categorisation of building types based on mean calculations of apartments (including non-residential premises) may be verified by referring to detailed town plans from the period. A 1:2500 base plan, originating from the first city plan of that scale worked out in the 1890s, redrafted in 1925 and republished in 1935 reveals the predominance in a majority of inner city street blocks of relatively consistent property development composed of building complexes enclosing one or more four-sided courtyards, identified as tenement houses. In such street blocks it has been assumed that the number of apartments contained in individual tenement properties would have been relatively constant. The consistency of an urban pattern developed at high density is interrupted in more peripheral quarters by less-compactly built-up plots, frequently incorporating wooden or smaller brick-stone building configurations, as well as larger factory complexes. In central districts, predating late-19th. century urban growth, closed-courtyard tenement housing is represented by pockets of infill development taking the form of outbuildings located among, or interlocking with, smaller but compactly-built structures. Most administrative, public and cultural edifices, as would be expected, were mainly concentrated in the so-called CBD. Tenement housing complexes are absent in only two parts of the inner city landscape; state or municipal land set aside for military use or public institutions and the mediaeval nucleus of the Old Town, *intra muros*.

[?]

This broad interpretation of the inner-urban physical pattern is confirmed by the results procured from calculating mean property sizes at street block scale. Most central-core blocks are calculated to have been composed of either smaller "barracks"-type properties (20-30 apartments). Furthermore, in the Old Town and parts of *arrondissements* I, X and XII, "barracks"-type properties are outnumbered by "medium-sized" town housing (10-20 apartments), predating the tenement speculation period or containing large apartments which occupied entire storeys (e.g. flats of the affluent, commercial premises or business offices). The belt of consistent tenement housing is represented by a broad arc of street blocks built up with tenement properties containing more than 30 apartments. Pockets of the largest tenement houses, composed of over 40 apartments, are revealed in cartogram IV<sup>a</sup> to have evolved in numerous areas of the tenement belt beyond Nalewki district (IV), which nevertheless continues to record the greatest concentration of such buildings. These "super-barracks"-type tenements are proven to have prevailed in groups of street blocks in (inner) western *arrondissements* III, V, VI, VII and VIII, but also predominated among the developed properties of isolated street blocks in (inner) Wola, Powiśle-Solec and Praga (a phenomenon explained by the raising in these inner-peripheral districts of singleroom-apartment tenements; housing of extreme "barracks"-type quality). The urban pattern elsewhere in outlying areas of the inner city featured medium-sized, often wooden, properties of under 20 apartments.

A small number of street block enclaves characterised by properties of between 6 and 10 apartments has come to

light in various parts of the inner city. Only by correctly interpreting cartographic - supplemented by photographic - sources is it possible to identify the corresponding building form with these isolated street blocks.

In Praga, for example, these "smaller medium-sized properties" would have been represented above all by wooden houses; in Powiśle riverside district, as well as, *arrondissement* VI by factory premises or small-manufacturing businesses; in southern *arrondissement* IX by luxury housing or even plutocratic villas; in the 12th. central administrative district by the Town Hall and its service buildings, cultural institutions, banks accommodating larger apartments in their upper storeys and late-18th. or early-19th. century town houses with apartments occupying whole floors and even some multi-level flats.

Premises serving commercial and other  
non-residential functions

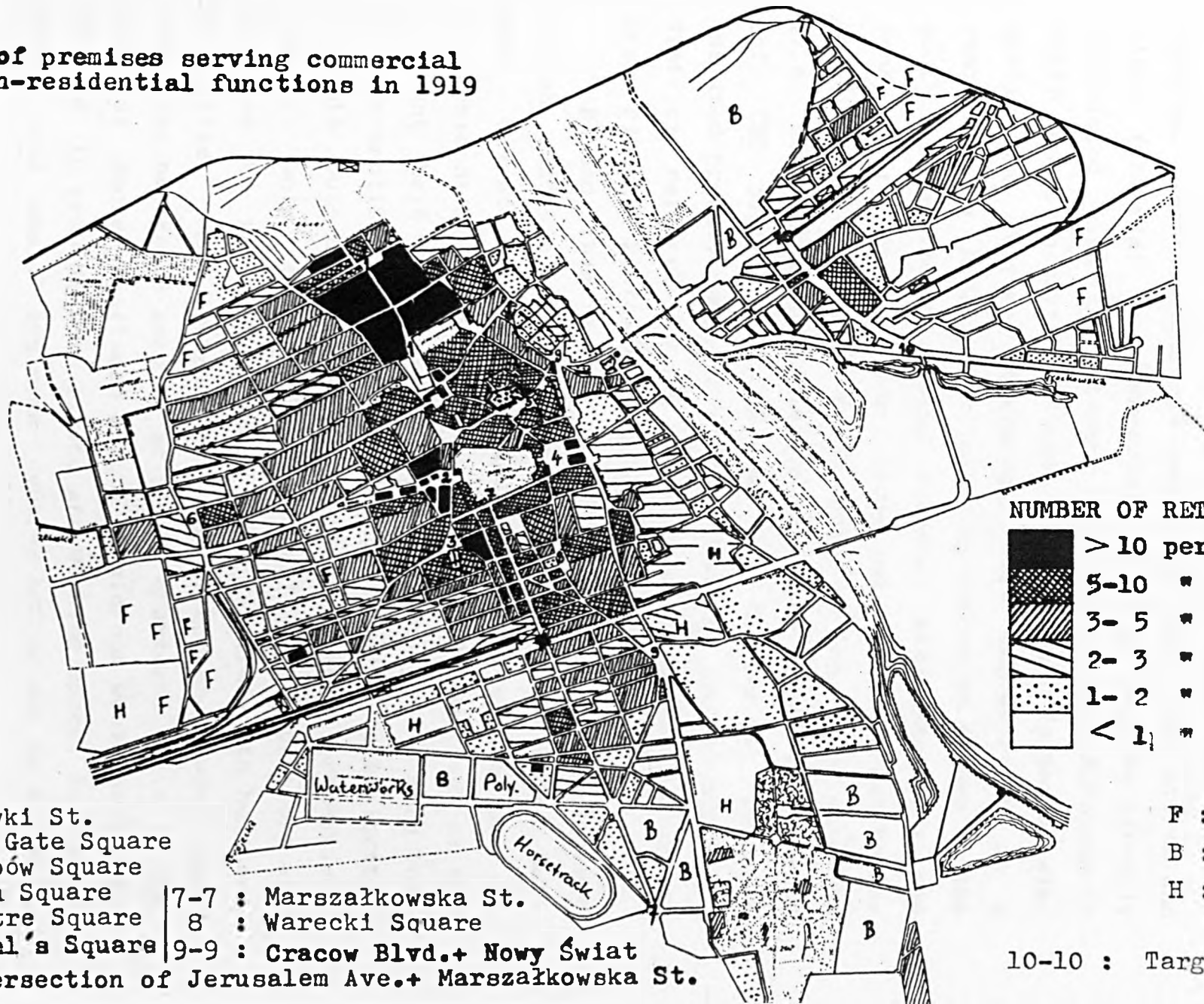
"Industrial and commercial enterprises strengthen the structure of the city, but it is the community of houses that marks the health, even the civilisation of a people." (148)

As far as an urban civilisation of people had evolved in Warsaw until the First World War, this quote by A.B. Gallion and S.Eisner applies to this particular city to such a degree that 89% of all apartments in developed inner-city properties served an exclusively or partial residential function. Moreover, most uninhabited space given over to retail or financial activities was evidently accommodated in

properties which also, to a lesser or greater extent, were adapted to human habitation. Calculating average proportions of non-residential premises in developed properties has brought to light shortcomings in the 1919 census commission's investigation of public-administrative as well as industrial buildings, which it failed to distinguish from commercial premises (recorded in column 4 of annex table VII). "Apartment" - habitable or uninhabitable - is a unit unsuited to measuring municipal buildings, public offices, theatres, museums, libraries, etc., as well as factory or other industrial buildings, which would have demanded a quite different method of categorisation than that applied in the 1919 property census. No account was taken, for example, of uninhabited rooms; the 1919 census was, after all, intended primarily to investigate housing conditions in the Greater Warsaw area. It is likely that many state-municipal or public buildings together with factories and related buildings of quantity production were registered either as wholly uninhabited properties or as single-, two- or three-apartment properties, depending on the attitude of census collectors confronted with a property which did not fit into the format of the property form and information chart with which they were issued.

Of non-habitable premises in developed properties, retail, larger trading and office space was most comprehensively covered by the 1919 census; a fact reflected by the concentrating of non-residential, occupied premises in central, historic, administrative or commercial areas of the inner city. Mean calculations of more than 10 (predominantly) commercial premises per developed property are concentrated in two main quarters: street blocks 91, 92,

Diagram IV<sup>b</sup> :  
 Mean number of premises serving commercial  
 and other non-residential functions in 1919



NUMBER OF RETAIL + OFFICE PREMISES

	> 10	per developed property
	5-10	" " "
	3-5	" " "
	2-3	" " "
	1-2	" " "
	< 1	" " "

- 1-1 : Nalewki St.
- 2 : Iron Gate Square
- 3 : Grzybów Square
- 4 : Saxon Square
- 5 : Theatre Square
- 6 : Kereel's Square
- 7-7 : Marszałkowska St.
- 8 : Warecki Square
- 9-9 : Cracow Blvd.+ Nowy Świat
- \* Intersection of Jerusalem Ave.+ Marszałkowska St.

- F : larger factories
- B : army barracks
- H : hospitals

10-10 : Targowa High Street

134

93, 94 and 95, comprising the hub of Nalewki district (IV), and street blocks 302-306, with nearby block 183, which define two chief marketing and small business centres located on and around Żelazna Brama (Iron Gate) and Grzybów Squares. Banks, insurance companies, department stores and other financial or commercial institutions more directly associated with the internal structure of West European or North American city centres, together with larger hotels, public and cultural buildings, were concentrated in a central area broadly delimited by Jerusalem Avenue to the south, Marszałkowska/Zielna streets, Królewska street and Bank Square in the west, Długa and Miodowa street to the north and the former "royal route" of the Polish monarchs (i.e. Krakowskie Przedmieście and Nowy Świat) in the east (cf. CBD districts B, E and F in Chapter 5). The area outlined broadly complies with an evolving central business district referred to by the urban and social historian, Irena Pietrzak Pawłowska as the Warsaw "City". (149)

Beyond this so-called CBD and the overwhelmingly Jewish quarters of Nalewki and areas focussing on Iron Gate and Grzybów Squares, the average estimation of non-residential premises in developed properties of the tenement belt fell to below 5 and in places to no more than 2. Groundfloor or basement businesses tended to be located in both out- and frontal buildings of tenement properties. However, only those premises of wealthier proprietors are expected to have been given over entirely to business activities. Most retail outlets or workshops would have contained backrooms serving as living quarters, while in the case of poorer craftsmen etc. a singleroom would have been adapted to provide both living and working space. Secondary market and small business centres had arisen on Kercel's

Square, where an immense bazaar had been operating since the 1870s (western inner district), and along Targowa High Street in Praga. Beyond the tenement belt a minimal proportion of premises serving exclusively commercial or other, non-residential functions had evolved.

#### Vacant flats in developed properties

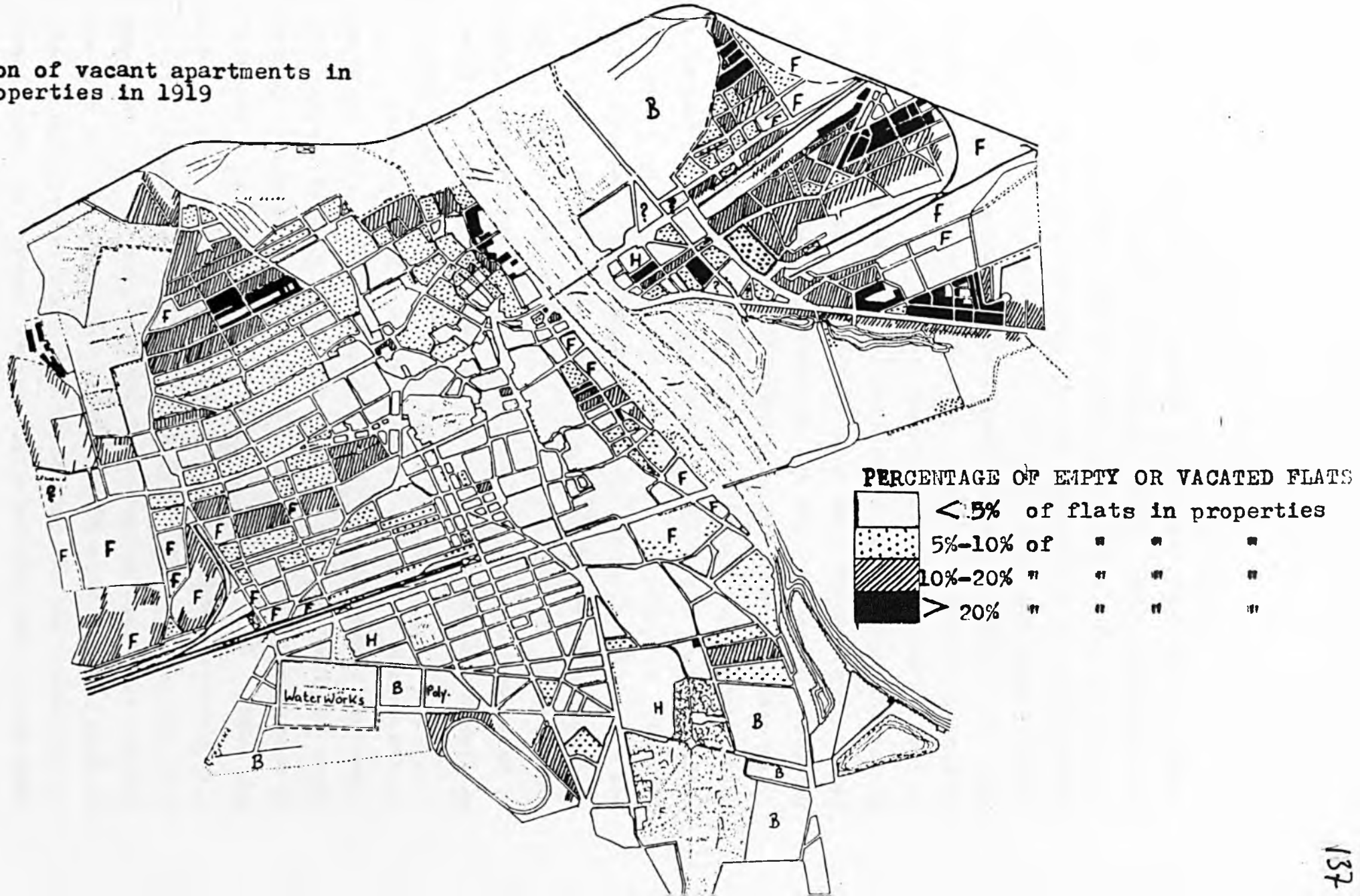
It has been suggested that wartime urban depopulation, as a reflection of deteriorating living standards and housing conditions, was proportionally much greater in peripheral, outlying areas of the city than in the tenement belt and urban core. This hypothesis has been proven to have been well-founded in relation to the suburban districts previously lying beyond the municipal boundaries, (cf. plate III<sup>b</sup> in Chapter 3).

The number of apartments recorded as vacant in 1919 is too great to be explained by the temporary absence of residents or tenantable flats in newly-constructed properties which had not been occupied since 1914. Two main causes have been identified as laying behind wartime urban depopulation: firstly, the emigration of non-Polish and non-Jewish nationals; secondly, increasing pauperisation and especially reduced food supplies in the city, inducing first generation urban dwellers in particular to return to the provincial towns, villages or farms of their birth.

The exodus of Warsaw's Russian citizens is reflected in cartogram IV<sup>c</sup> by the vacating of between 10% and c. 25% of the apartments of properties in most inner-rightbank street blocks; many lesser civil servants and officers had



ogram IV<sup>c</sup> :  
 The proportion of vacant apartments in  
 developed properties in 1919



taken up residence together with their families in Praga. Similar recordings of vacated flats have been made for certain isolated street blocks situated in the vicinity of former Russian barracks in the leftbank districts of Nowe Miasto (*arrondissement* II), Ujazdów (IX) and Koszyki (XI). This exodus also included Russian-speaking Jewish citizens whose incomes were dependent almost entirely on trading contacts with the Russian heartland; before the retreat of 1915 they ran their small businesses or counting houses, or had been living on and near Iron Gate Square (e.g. blocks 163 and 164 recording between 10% and 20% vacant flats per developed property). Elsewhere in the inner-leftbank city, in outlying built-up areas such as Powiśle and (inner) Wola, a larger proportion of vacated apartments has come to light. In addition, a majority of street blocks in the 5th *arrondissement* of Okopowa (blocks 108-110, 112, 113 and 115-121) reveal that over 10% of apartments were vacant in 1919. Developed properties in this part of the tenement belt, according to the 1:2500 scale base plan, consisted of several factory complexes and wooden structures as well as closed-courtyard tenement houses.

Okopowa district was inhabited by a Jewish ethnic majority (c. 70%), composed of poorer craftsmen, wholesale and retail traders as well as street vendors, many of whom, having originated from east of the River Bug, were known as "Litvaks", (*litwacy*) i.e. "Lithuanian" Jews.<sup>(150)</sup> There was also a large Catholic population (28% in 1910), representing Polish industrial workers with their families who had been employed in tannery and metal-processing factories located on and in the immediate vicinity of Okopowa Street. Much of the workforce had been laid off during the war years and at least one of these larger factories had been closed down

altogether. In addition, street blocks 117 and 118 were partially taken up by a military prison complex which, it may be assumed, had been emptied of its former inmates in 1915 (or in 1918), explaining the recording of 144 vacant "apartments" out of a total of 1078 apartments in developed properties of these two street blocks in 1919 (cf. Tenement Belt District in Chapter 6).

A variety of factors, relating to social, functional and ethnic characteristics of a given inner city district or specific street block, can be seen to have contributed to a decline in population between 1913 and 1919. This demographic decline is revealed in part by the proportion of apartments in developed properties recorded as vacant in 1919. Many flats were evidently vacated by residents migrating from the city after August 1914. Nevertheless, vacant apartments expressed, as a proportion of habitable and non-habitable apartments in developed properties, cannot be expected to adequately indicate actual numbers of rural immigrants. In areas of particularly high housing densities, from where many first generation urban residents are assumed to have migrated after 1914, rooms or apartments they moved out of would have remained occupied by other workers or artisans with their families. It will be observed that street blocks in predominantly proletarian quarters of the tenement belt, such as Okopowa *arrondissement*, and especially the inner-peripheral districts of Powiśle, (inner) Wola and Praga, were composed in the main of properties subdivided into singleroom - or at most two-room - apartments which were inhabited, even in 1919, by 3 or more residents to a room (compare cartograms IV<sup>d</sup> and IV<sup>f</sup>).

The subdividing of habitable apartments into rooms

A study by H. Bobek and E. Lichtenberger of Vienna's urban structure and development from the mid-19th. century defined three broad types of tenement housing in connection with the social status of the tenants for whom such buildings might be argued to have been originally designed:

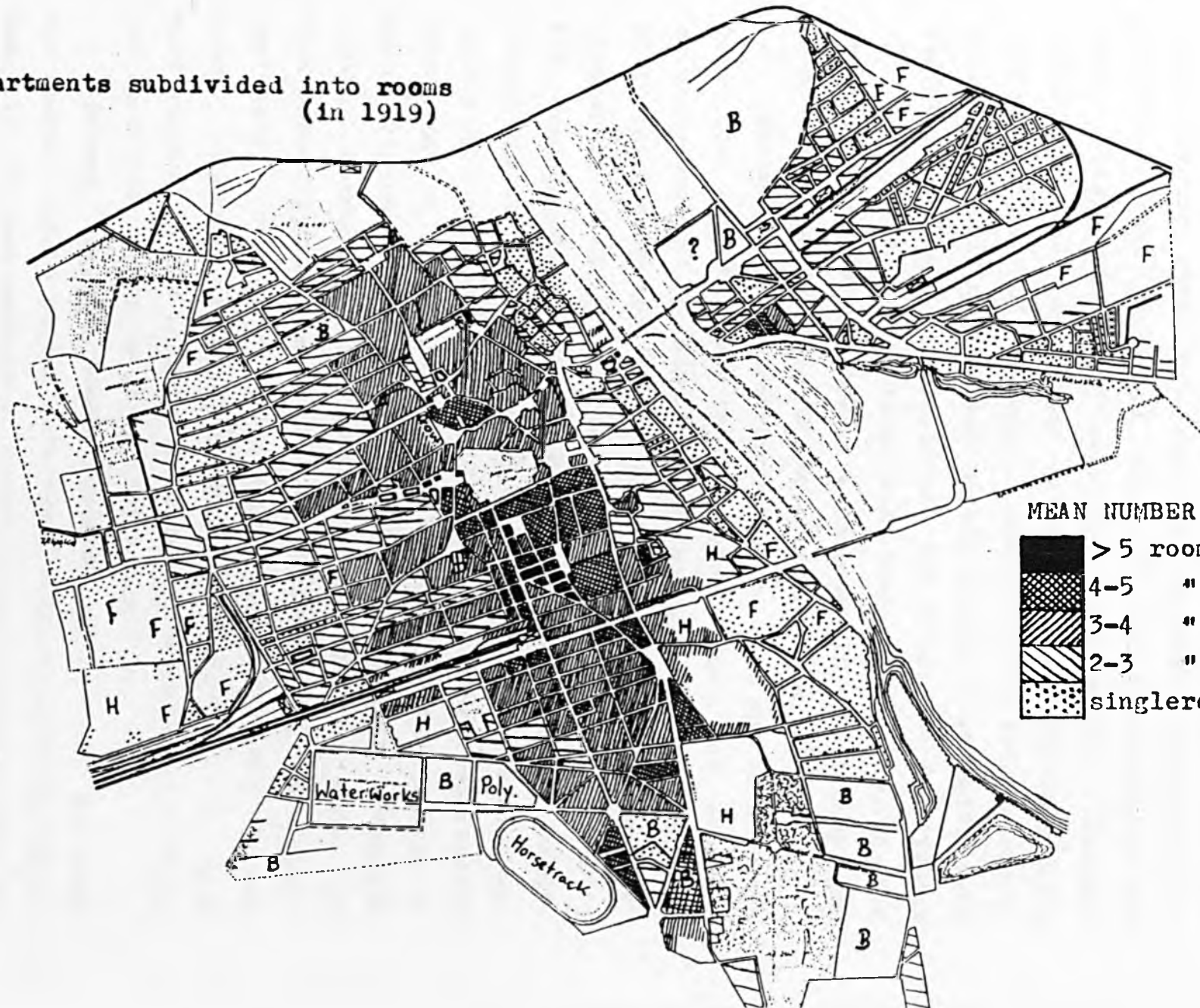
(1) the so-called noble tenement (*das Nobelmietthaus*) inhabited by the wealthiest or most elevated members of society;

(2) the merchant tenement (*das Bürgerlichermietthaus*) for the urban middle classes;

(3) a specific residential building form for the urban proletariat (*das Arbeitermietthaus*), also referred to as *das Bassenahaus* on the grounds that a water basin - *die Bassena* - with cold water tap and, sometimes, a water closet were placed on each storey to be shared by the residents. (151)

A preliminary step in the identifying of tenement property-types in Warsaw, according to the very broadly-defined social or professional status of residents might be provided from the 1919 census by mean calculations of room subdivisions in inner-city apartments (cartograms IV-). If social standing in Vienna's rigorously separated society could still be gauged by proximity of home address to the Hofburg royal residence, in Warsaw's considerably less rigid, although still partially at least aristocratic-orientated, society, was also very much focussed on the city centre, as well as on the southern quarters of the tenement belt. 5- or 6-room, residential apartments prevailed in the developed properties of street blocks nos. 2, 192, 233 and 235, fronting or situated just behind Marszałkowska Street between its crossroads with

togram IV<sup>d</sup> :  
 Habitable apartments subdivided into rooms  
 (in 1919)



MEAN NUMBER OF ROOMS

	> 5 rooms in apartment
	4-5 " " "
	3-4 " " "
	2-3 " " "
	single room apartments pre-dominant

Jerusalem Avenue and its termination before the Saxon Gardens. 4- or 5- room apartments predominated in most street blocks situated between Marszałkowska Street, the Saxon Gardens, Nowy Świat and Chmielna Street, as well as in certain street blocks of the 12th. (central-northern) and 8th. (Grzybów) *arrondissements*. Monumental tenement building raised in these central quarters was frequently rented out as office space; located in the lower storeys, with large residential flats on the second, third and fourth floors. Bankers, industrialists and other powerful figures in the world of finance and commerce had built for themselves grandiose town residences in which they also located the headquarters of their enterprises. (152)

Secondary concentrations of multi-room apartments have come to light in the tenement belt of southern *arrondissements* IX (Ujazdów), XI (Koszyki) and particularly XIII (Aleksandryjska). A group of still extant "palace" tenements, (*kamienice pałacowe*), as a category analogous to the Viennese *Nobelmiethaus*, have been identified on Ujazdów Avenue (block 338). Tenement housing of this kind was typically subdivided into expansive luxury apartments occupying an entire storey of the main, street-facing or parallelly-positioned, courtyard-facing building. Separate living quarters for domestic servants in side- or back-outbuildings, entered by means of a secondary, "servants'" staircase, were subdivided into one or two rooms, thereby reducing mean calculations of room subdivisions in the apartments of such properties (3.6 rooms per apartment recording for street block 338).

Street blocks characterised by 3- or 4- room apartments, rented by the relatively comfortably-situated or modestly affluent members of Warsaw urban society prevail in

extensive parts of the tenement belt. Tenement living did come to be associated with what was frequently referred to by contemporary and interwar publicists as middle-class mediocrity, more than with the urban experience of any other so-called social group.<sup>(153)</sup> A correlation clearly exists between mean room subdivision calculations in apartments and street block location within inner-leftbank Warsaw. Apartment sizes became proportionally smaller with increasing distance from the central-commercial and administrative districts. It has been observed in Chapter 3 that urban depopulation between 1914 and 1918 in all likelihood increased proportionally beyond inner-city districts of consistent tenement house construction as deteriorating living standards induced less fortuitously-situated inhabitants to migrate from the city. This theoretical relationship between urban poverty and demographic instability in urban population trends would seem to be connected with the social structure of the Warsaw tenement house. While the new propertied-classes elevated by 19th. century industrialisation strove to achieve a similar standard of living and social status as - and even took the initiative away from - a largely defunct aristocracy, themselves frequently occupying or building their own "noble tenements", it would seem poorer elements of urban society were excluded or found themselves in a position to secure for themselves only inferior housing conditions in the city. Where representatives of Warsaw's working-classes provided a service for the affluent or comparatively well-placed inhabitants of the so-called palace and middle-class tenements; for example, as domestic servants, shop keepers, craftsmen or even doorkeepers, it could be concluded that they were directly necessary to that

social hierarchy and were accommodated even within the same tenement property: particularly in outbuildings, basements, groundfloors apart from in the uppermost storeys and attics.

Beyond inner city quarters where multi-room apartments predominated in developed properties lived the factory workers, poorer shopkeepers, artisans, craftsmen and generally those members of urban society segregated both socially and even spatially from the upper- and middle-classes. Members of the urban proletariat able to secure and hold on to a stable income; especially skilled workers and craftsmen, might rent single- or two-room apartments. "Workers'" tenements composed of singleroom and occasionally two-room flats entered from a communal corridor on every storey and a single staircase, were put up in close proximity to zones of industrial production on the edge of the leftbank tenement belt (especially in *arrondissements* III, V, VII and even VIII), apart from in the inner-rightbank district of Praga and its leftbank inner-peripheral districts of Powiśle and (inner) Wola. These "proletarian" quarters also featured smaller, mixed-residential properties incorporating light manufacturing or other types of quantity production as well as some wooden housing.

Mean numbers of residents calculated in properties

As an indication of population densities on street block scale, mean calculations of inhabitants have been determined by dividing the number of residents recorded in each street block into the number of developed properties. This

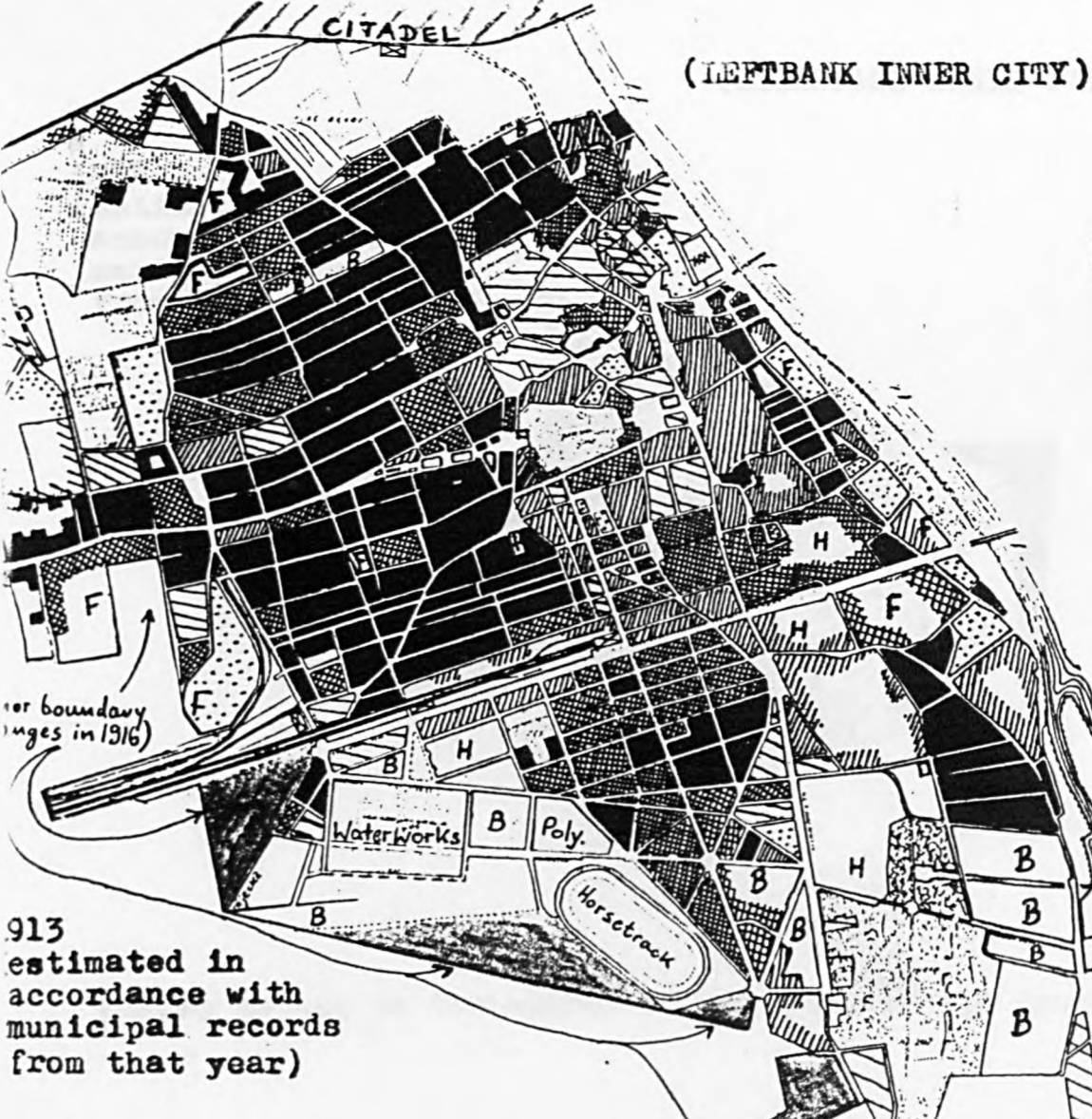


calculation has been made in view of the lack of hectaral measurements for street blocks, thereby solving simultaneously the question of undeveloped land or building plots within the area under investigation. Patterns of population distribution underline the "barracks quality" of housing in social terms, indicating a predominance in the inner-city municipal districts of properties accommodating more than 100 residents (cf. Fig. 1.8 in Chapter 3). This predominance of properties inhabited by over 100 people is clearly illustrated in cartograms IV<sup>a</sup> (I) and (II).

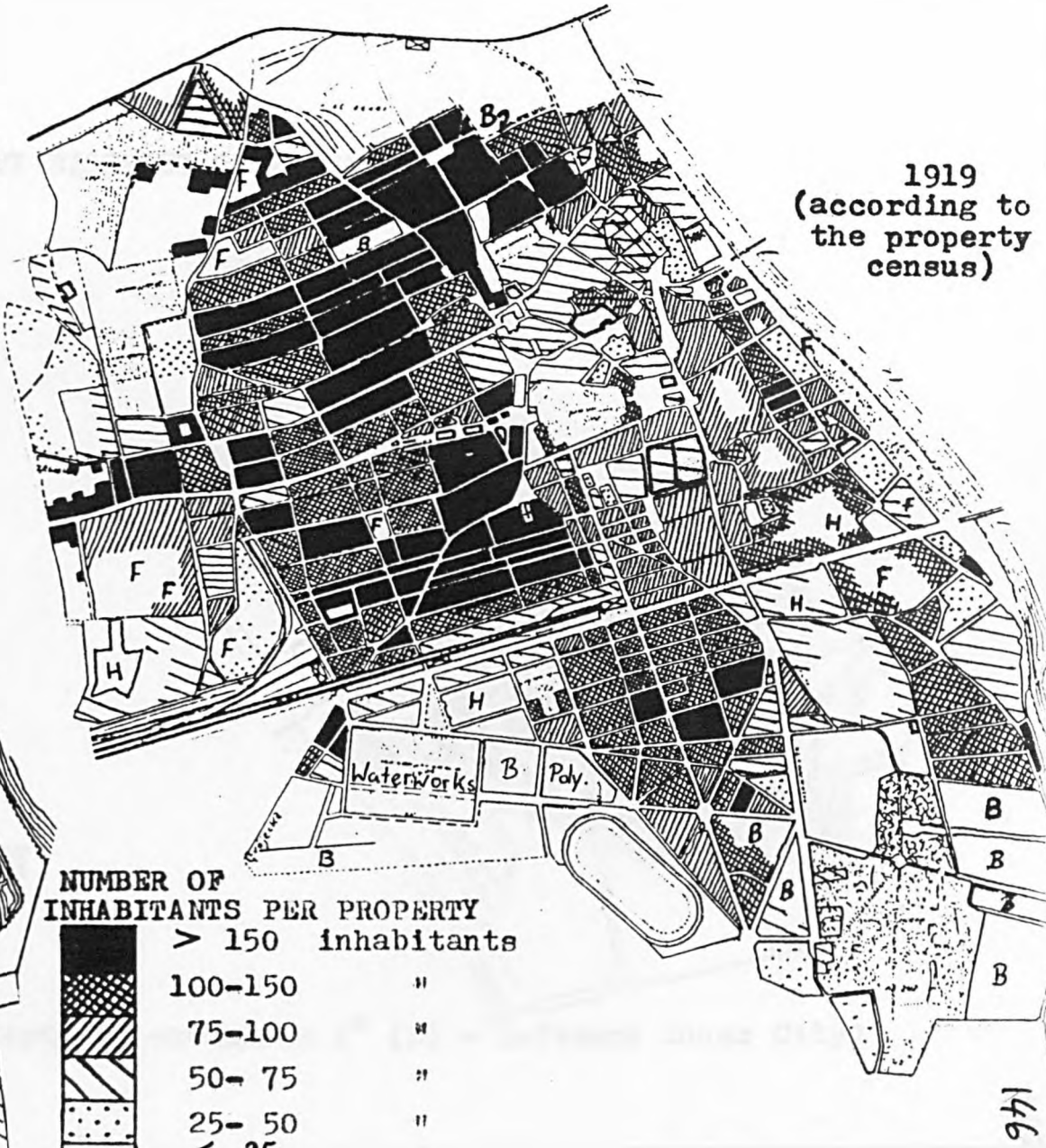
In most street blocks of the leftbank tenement belt as many as between 150 and 200 inhabitants were accommodated in what were evidently "barracks"-type properties; a density calculation extending into significant parts of the built-up area of inner-peripheral districts. Only in more outlying parts of Wola, Praga (especially Szmulowizna and Kamionek) did housing densities fall to below 100, and in certain street blocks as few as between 25 and 50 residents to each property. The presence of numerous state-municipal buildings, public offices, and cultural institutions providing minimal or no residential space, as well as mainly "medium-sized" houses composed of less than 20 habitable apartments quarters predating late-19th. century urban expansion, explains a predominance throughout much of the central administrative district (*arrondissements* I and XII) of properties accommodating less than 50 residents. Housing densities calculated by this method emphasise the threeway urban divide, already suggested by the built-up pattern, between central-core, tenement belt and inner-peripheral transitional zones.

An estimation of residential patterns as they had existed in 1913 is presented in parts I (leftbank inner

Diagram 4<sup>e</sup> (I) :  
 Mean number of inhabitants in developed properties



1913  
 estimated in  
 accordance with  
 municipal records  
 from that year)



NUMBER OF INHABITANTS PER PROPERTY

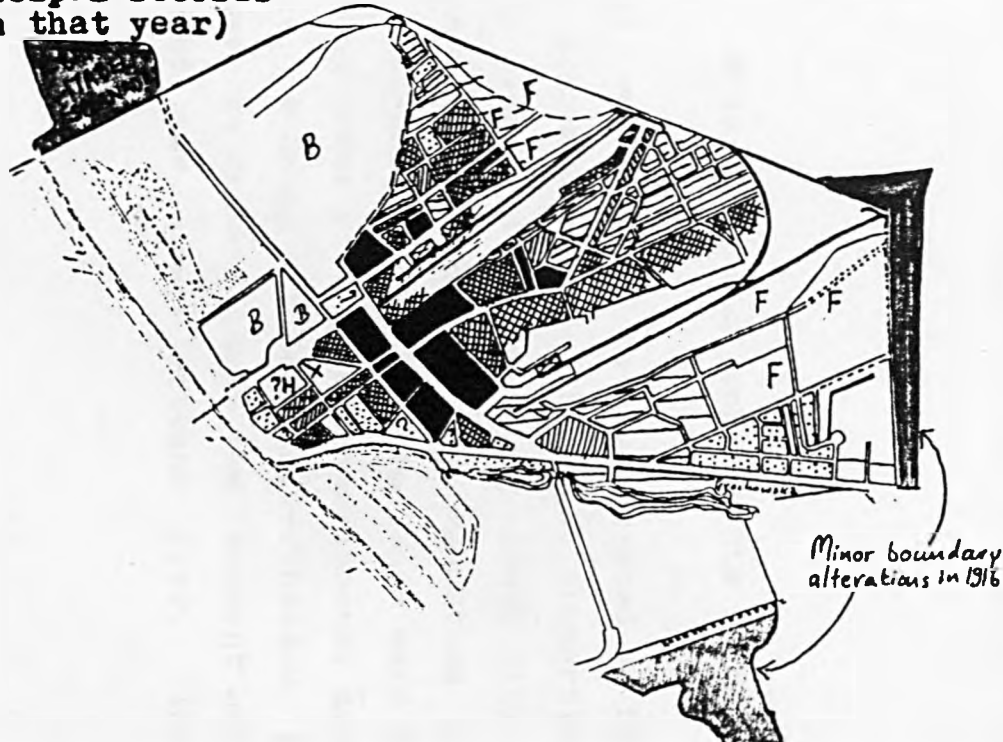
[Solid black shading]	> 150	inhabitants
[Cross-hatch shading]	100-150	"
[Diagonal line shading]	75-100	"
[Horizontal line shading]	50-75	"
[Dotted shading]	25-50	"

Cartogram 4<sup>o</sup> (II) :

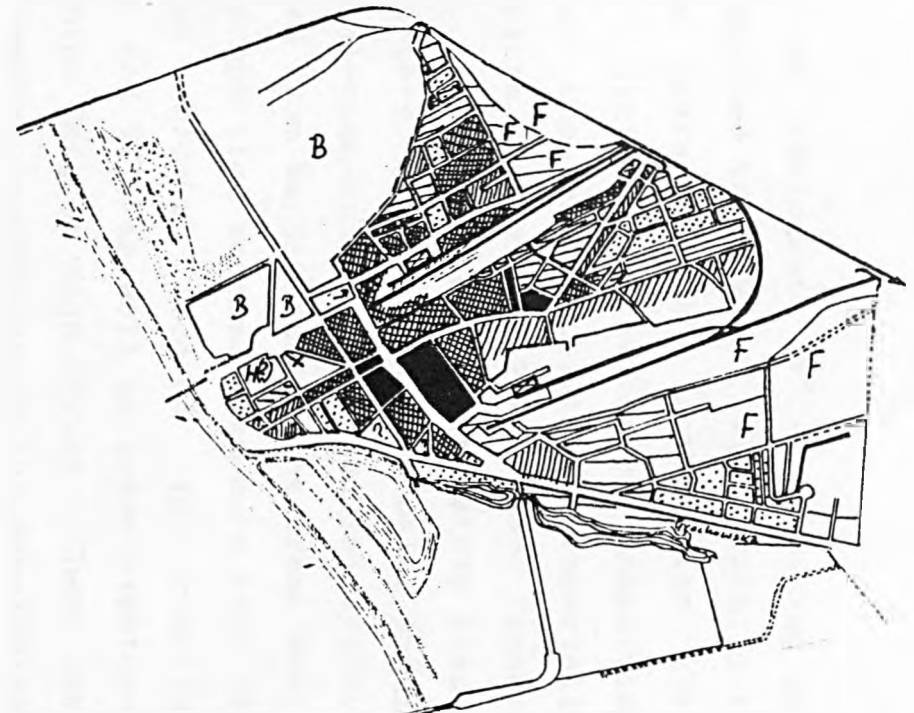
Mean number of inhabitants in developed properties

(RIGHTBANK INNER CITY DISTRICT OF PRAGA)

1913  
(estimated in  
accordance with  
municipal records  
from that year)



1919  
(according to  
the property census  
results of that year)



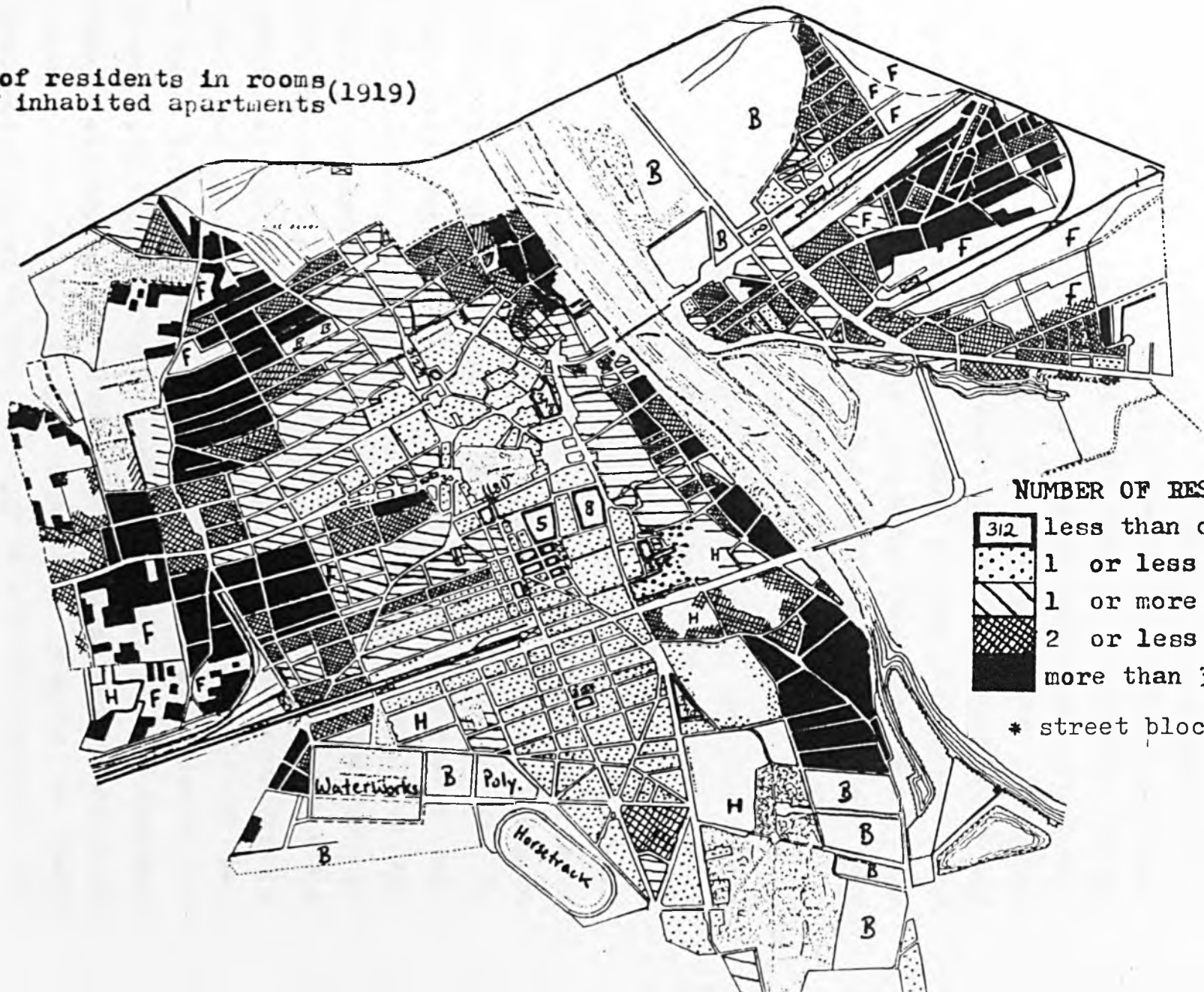
(Refer to key to the number of inhabitants per property in cartogram 4<sup>o</sup> (I) - Leftbank Inner City)

city) and II (Praga) of cartogram IV<sup>a</sup>. Comparing the mapping of housing densities in 1919 and 1913 according to street block divisions bears out the supposition that greater numbers of citizens previously inhabiting proletarian quarters of the tenement belt, and especially inner peripheral districts (such as Powiśle and (inner) Wola, as well as Praga), rather than more fortunately placed residents in most quarters of the tenement belt, and in particular the central-commercial and administrative districts, had migrated from Warsaw during the Great War. It can be seen that properties accommodated more than 150 inhabitants in street blocks located in Powiśle, *arrondissements* V, VI and VII, as well as inner-rightbank properties on and behind Targowa High Street. These same quarters, apart from smaller properties in the Szmulowizna area of Praga, recorded even in 1919 the largest numbers of residents in individual room subdivisions of inhabited apartments.

Mean numbers of inhabitants in rooms

A certain consistency would appear to have existed in the number of residents accommodated in tenement properties irrespective of their location within the inner city. Street blocks composed of properties accommodating on average between 100 and 150 or over 150 residents were as much the norm in built-up areas of the inner-peripheral zone as in the tenement belt. A broad division, nevertheless, in "barracks" housing may be drawn between the tenement belt and outlying areas of the inner-leftbank city. This

Diagram 4<sup>f</sup> :  
 Mean number of residents in rooms  
 of inhabited apartments (1919)



NUMBER OF RESIDENTS TO A ROOM :

312	less than one resident *
[Dotted pattern]	1 or less frequently 2 people
[Diagonal lines pattern]	1 or more frequently 2 people
[Cross-hatch pattern]	2 or less frequently 3 people
[Solid black pattern]	more than 3 residents

\* street block numbers for reference



division is pronounced in cartograms IV<sup>d</sup> and IV<sup>f</sup>, recording respectively mean calculations of rooms in inhabited apartments and residents in rooms. In street blocks delimiting the tenement belt (cf. Fig. 1.10 and plate IV<sup>b</sup>) a consistent correlation arises between properties in street blocks containing 4-room, 3-room, or less often 2-room, flats and a mean housing density calculation of 1 or 2 residents to each room in inhabited apartments. It should be emphasised here that "room" (*izba*) was defined within the framework of the 1919 census as any habitable space partitioned or partially isolated from the rest of the apartment; a definition not applied, where they were present, to the kitchen, hallway, bathroom and/or W.C.

The corresponding of (2-), 3- or 4-room apartments with a residential density norm of one or two, but rarely more, residents to each habitable rooms (expressed in groupings of developed properties in street blocks) would seem to have been a prime constituent of socially entrenched housing standards prevailing in Warsaw middle-class homes (*Bürgerlichermiethaus*) of the time (cf. especially tenement districts 9 (Koszyki) and 10 (South-East) in Chapter 6). It has been seen that apartments composed of more than 4 rooms characterised developed properties in much of the central-commercial and administrative district and parts of the southern tenement belt. In broadly these same areas mean calculations of one person per habitable room prevail over two persons per room. In a small number of individual street blocks of central and southern-tenement districts a mean calculation of less than one person to a room has been made, signifying, in terms of housing requirements, an excess of rooms in all properties grouped in these particular street blocks (5 and 8 in *arrondissements* I, 181

and 1919 in VIII, 229-233 in X, 329 and 340 in XIII). It is worth noting that street block no. 338 - identified from empirical study of the modern city's tenement house topography as containing a series of "palace tenement" houses fronting Ujazdów Avenue - does not figure among street block concentrations of properties in which the number of rooms in habitable apartments exceeded the number of residents.

In his comparative urban and architectural history of three leading European cities in the 19th century, D. J. Olsen observed in connection with the social geography of Paris:

"(...) social segregation proceeded building by building, or, more often, street by street, rather than quartier by quartier. Streets as elegant as the rue de la Chaussée d'Antin might contain some small dwellings occupied by poorer residents."

and, later:

"Behind every boulevard, with its elegant façades and middle-class residents, lay in tact an older, working-class Paris." (154)

These revealing conclusions can be applied, at least to a certain extent, to the wealthiest and most elegant parts of 19th. century Warsaw. The palace tenements, and even several plutocratic villa residences, located in street block 338 backed onto more standard "barracks" properties with addresses on Mokotowska Street, as well as some properties on Piękna Street subdivided into 2-room apartments which, presumably, would have been inhabited by Warsaw's equivalent of the Parisian *petit-bourgeois*,

("drobne mieszczaństwo"). Moreover, in the palace tenements themselves upper storeys were almost certainly occupied by domestic servants (usually at least 2 to a room) and possibly the dependents of those who could afford the actual luxury flats of the first and second floors. These lower-storey apartments were composed of considerably more than 4 or 5 rooms, while staunchly "middle-class" apartments in most parts of the tenement belt would have been made up of at least 3 or 4 habitable rooms, and it would have been inconceivable that any member of the urban bourgeoisie should not have had his or her own personal chamber, as well as a salon for receiving guests. Even the lower middle classes would have striven to employ at least one servant; a fundamental indication of social standing until the Second World War. Where a secondary room was unavailable for a cook-cleaner-and-bottle-washer, she (invariably a peasant girl from the provinces) had to sleep in the kitchen. (155)

In his research of housing conditions in pre-revolutionary St. Petersburg, J.H. Bater referred to a model of urban-class structure devised by an early-19th. century Prussian geographer, J.G. Kohl. In this model the urban poor, restricted to uppermost storeys and insanitary basements in the city centre became proportionally more important with increased distance from the socially prestigious centre to represent the majority of residents in peripheral areas where vastly inferior quality, low level and partially wooden housing prevailed. (156) This pattern certainly applied to early-industrial Leipzig, and has remained a fundamental characteristic of Vienna's social geography right down to our own times. (157) In *St. Petersburg: Industrialisation and Change*, Bater found the model immediately relevant even to the later-19th.



century urban social structure, concluding:

"It was continuity rather than change that characterised the pattern of the social fabric of St. Petersburg during the course of its industrialisation." (150)

Some detailed inspection of Warsaw's own urban development and change during the late-industrial era, of *Hochgründerzeit*, as it is referred to by German and Austro-Hungarian historians, will have to be carried out before a conclusion of the sort reached by Bator could be arrived at. However, it would seem a highly probable supposition to make that the social-class structure of Warsaw, featuring a prevalence of multi-room flats for the upper and middle classes in the properties of city centre and inner tenement districts, characterised by intensified apartment subdivision and greater numbers of residents recorded in inhabited rooms, which increased with distance from the centre, was also typical of residential patterns in the city. The degree of continuity, rather than change, which might be proven to have existed in the city's social fabric between c. 1864 and 1914 - although on a considerably greater human scale and much wider urban field - will be considered in Part II of the investigation.

PART II

FUNCTIONAL ZONES AND DELIMITATION OF SUB-STUDY AREAS

CHAPTER 5

THE INNER-URBAN CORE

Sub-study areas of the inner-urban core  
and tenement belt

In Plate IV<sup>b</sup> functional zones within the metropolitan area have been defined in relation to prevailing property types and functions investigated in the 1919 census and verified by cartographic information. It is the tenement belt and its historic, administrative and commercial urban core which need to be subjected to intensive research. This area, delimited in part by the former customs wall, following Okopowa, Towarowa, Koszykowa and Polna streets laid out on the site of this earthen boundary after 1870 (cf. Fig. 1.10), coincides with the administrative area of leftbank Warsaw, defined at the end of the 18th. century and only marginally extended to include parts of Wola and Czyste-Ochota suburbs during the 1864-1914 study period.<sup>(159)</sup> The tenement belt of compact property development and relatively consistent building plot parcellisation (cf. Plate II in Chapter 1<sup>b</sup>) broke down, together with deteriorating housing conditions and an overall increase in residential densities, both below the Vistula escarpment (Powiśle riverside district) and in outlying areas of western *arrondissements* III, V, VI and VII, (inner Wola district). Powiśle and (inner) Wola have been recognised as constituting, together with the rightbank inner city of Praga, an inner-peripheral zone where

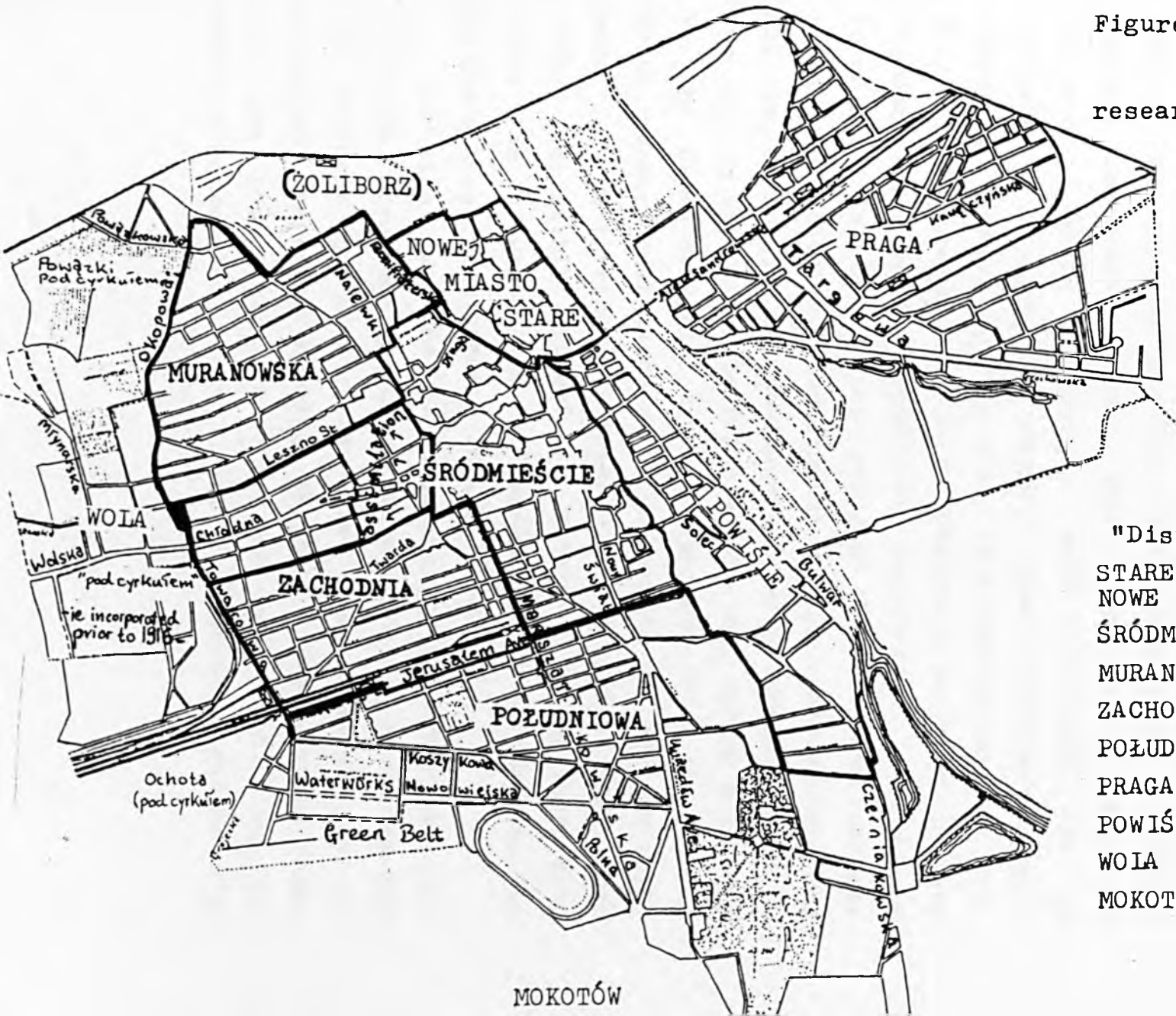
tenements composed of singleroom and two-room apartments stood among smaller, often wooden, housing, in the vicinity of industrial land and factory location.

Although a degree of consistency has been observed within the tenement belt from the analysis of property and apartments statistics at street block scale, fluctuations in property sizes, non-residential functions, apartment subdivisions and residential patterns have come to light (illustrated in cartograms IV<sup>a</sup> and IV<sup>f</sup>). Above all, building type, functional structure and population distribution of property groupings comprising street blocks in the city centre have been proven to generally contrast with properties of the tenement belt originating mainly from the 1864-1914 era. Ethnic composition has also proved a major factor in certain tenement districts; above all in the Nalewki (*arrondissement* IV) and parts of Grzybów (VIII) and Mirów (VII). Nalewki and Grzybów were referred to extensively in Chapters 1, 2 and 3 as consistently built-up *arrondissements* within the tenement belt, displaying some of the more fundamental characteristics of physical form and population density to be encountered in this inner urban functional zone.

In a collective study of Warsaw's large-scale urban development before 1918; edited by I. Pietrzak-Pawłowska and a major authority on the subject (cf. reading list in the "Introduction") "functional" districts within inner urban Warsaw were identified as an alternative to the police districts originally defined in 1791 and redrawn successively throughout the 19th. century (cf. Fig. 2.1). These inner city districts - comprising the commercial and administrative centre, the discarded historic core of the Old Town with its northern, "New" Town extension,

Figure 2.1:

Functional districts of Warsaw City defined by the research group led by I. Pietrzak-Pawłowska



"District"	translated	commissariats
STARE MIASTO	HISTORIC	I, II
NOWE MIASTO		
ŚRÓDMIEŚCIE	CITY CENTRE	I, XII, X
MURANOWSKA	NORTH-WESTERN	III, IV, V
ZACHODNIA	WESTERN	VI, VII, VIII
POŁUDNIOWA	SOUTHERN	IX/XIII, XI
PRAGA	RIGHTBANK	XIV, XV
POWIŚLE	RIVERSIDE	I/II-X-IX/XIII
WOLA	INCORPORATED	III-V-VI-VII
MOKOTÓW	post-1916 incorporation	XVI

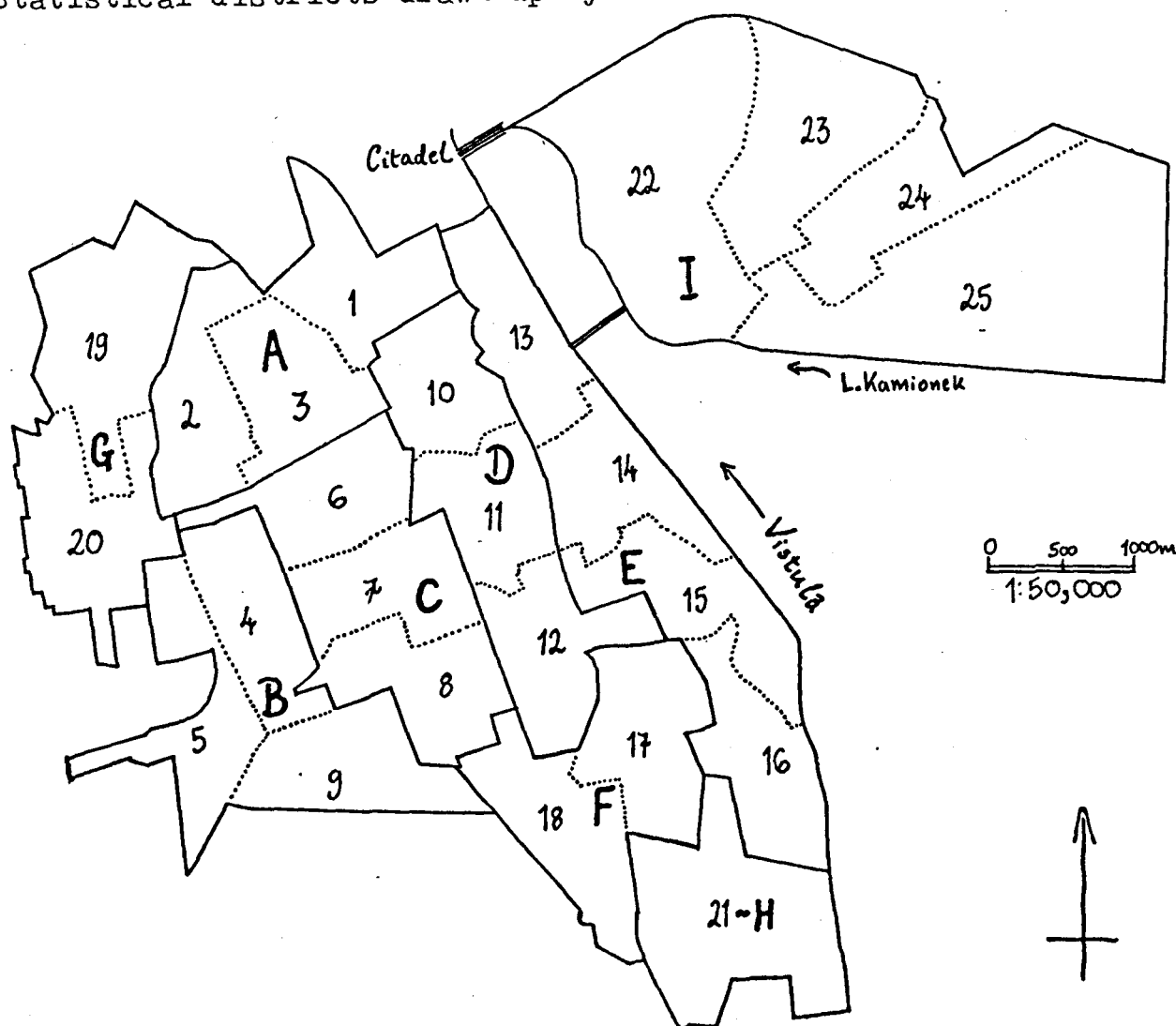
"North-Western", "Western" and "Southern" districts within the tenement belt, Powiśle and Praga - closely correspond with Warsaw's internal structure and spatial orientation as they had been evolving in the later half of the 19th. and beginning of the 20th. centuries. (160)

The Sanitary Committee (САНИТОРНОЙ КОМИТЕТ) appointed by the tsarist authorities in 1891 to investigate health standards and facilities provided in private properties was the only body prior to the post-1945 changes to draw up its own survey areas in the city. These were based on 9 broad regions (КВАРТАЛЫ) divided into 25 statistical districts (ГРУППЫ), which themselves were subdivided into 90 "regions" (РАЙОНЫ) of roughly equal territorial area embracing usually between 4 and 10 street blocks (cf. Fig. 2.2). St. Petersburg originally intended a survey of hygiene standards in Warsaw properties be carried out every 10 years, but in the end there was just the one. The rational territorial division independent of the commissariats was not to be applied in subsequent property censuses, such as the one in 1919, thereby reducing the 1891 survey's utility in the urban analysis, since the uniqueness of its spatial units renders comparison with the results of 1882 and 1919, based on a territorial division into municipal districts, almost impossible, except in relation to the inner city taken as a whole (cf. "Housebuilding fluctuations in Warsaw's urban development" in Chapter 9).

For the purposes of investigating the urban pattern, functional structure and urban-class structure of Warsaw and its dominant building type; i.e. the tenement house of so-called "barracks"-housing property, the leftbank inner city has been subdivided into 6 sub-areas constituting the historic-commercial core and 10 districts within the

Figure 2.2:

Statistical districts drawn up by the Sanitation Committee of 1891



STATISTICAL DISTRICTS (ГРУППЫ)

- 1 - Muranovskaya (МУРАНОВСКАЯ)
- 2 - Okopovaya (ОКОПВАЯ)
- 3 - Karmelitskaya (КАРМЕЛИЦКАЯ)
- 4 - Tovarnaya (ТОВАРНАЯ)
- 5 - Zaokopnaya (ЗАОКОПНАЯ)
- 9 - Starinkievicha (СТАРИНКЕВИЧА)
- 6 - Mirovskaya (МИРОВСКАЯ)
- 7 - Gribovskaya (ГРИБОВСКАЯ)
- 8 - Pomologicheskaya (ПОМОЛОГИЧЕСКАЯ)
- 10 - Teatralnaya (ТЕАТРАЛНАЯ)
- 11 - Saksonskaya (САКСОНСКАЯ)
- 12 - Bratskaya (БРАЦКАЯ)
- 13 - Zamkovaya (ЗАМКОВАЯ)
- 14 Brovarnaya/Topiel (БРОВАРНАЯ/ТОПЕЛ)
- 15 - Soletskaya (СОЛЕЦКАЯ)
- 16 Tscherniyakovskaya (ЧЕРНЯКОВСКАЯ)
- 17 - Uyazdovskaya (УЯЗДОВСКАЯ)
- 18 - Mokotovskaya (МОКОТОВСКАЯ)
- 19 - Povonzkovskaya (ПОВОНЗКОВСКАЯ)
- 20 - Volskaya (ВОЛСКАЯ)
- 21 - Lazhenkovskaya (ЛАЖЕНКОВСКАЯ)
- 22 - Staro-Pragskaya (СТАРО-ПРАГСКАЯ)
- 23 - Novo-Pragskaya (НОВО-ПРАГСКАЯ)
- 24 - Shmulevskaya (ШМУЛЕВСКАЯ)
- 25 - Terespolskaya (ТЕРЕПОЛСКАЯ)

URBAN AREAS (КВАРТАЛЕ)

- North-West СЕВЕРО-ЗАПАДНЫЙ
- South-West ЮГО-ЗАПАДНЫЙ
- Middle СРЕДНИЙ
- Central ЦЕНТРАЛЬНЫЙ
- Riverside ПРИВЕНСЛАНСКИЙ
- South ЮЖНЫЙ
- Wola ВОЛСКИЙ
- outer-southern
- Praga ПРАГСКИЙ

tenement belt, (cf. Fig. 2.3). These territorial subdivisions within the prime study area have been delineated according to broadly consistent calculations of apartment numbers in developed properties, the subdividing of apartments into rooms and housing densities among groups of street blocks (cf. annex table VII, the results of which have been summarised in Table 8).

It will be noticed that municipal district boundaries and their designating Roman numerals have been retained, especially in the tenement belt. After separating the inner-peripheral districts from the "Main City" of tenement property development, it has been discovered that concentrations of properties in street blocks, grouped in relation to the boundaries of truncated *arrondissements* III, V, VI, VII, X and XI, as well as the entire built-up areas lying within *arrondissements* IV, VIII and XII, do correlate with certain broad fluctuations within the study area in terms of building characteristics, functional activities, residential patterns, etc. Moreover, the municipal districts have been referred to extensively throughout Part I of the investigation as territorial subdivisions in the statistical analysis of Warsaw's internal structure. As such, the *arrondissements* have become too important at this stage to dispense with.

Apart from the 6 "city centre" and 10 "tenement belt" districts composing the study area, 15 quarters of less immediate importance to the investigation, forming the inner-peripheral zone, have been recognised (cf. Figs. 2.12 and 2.14).

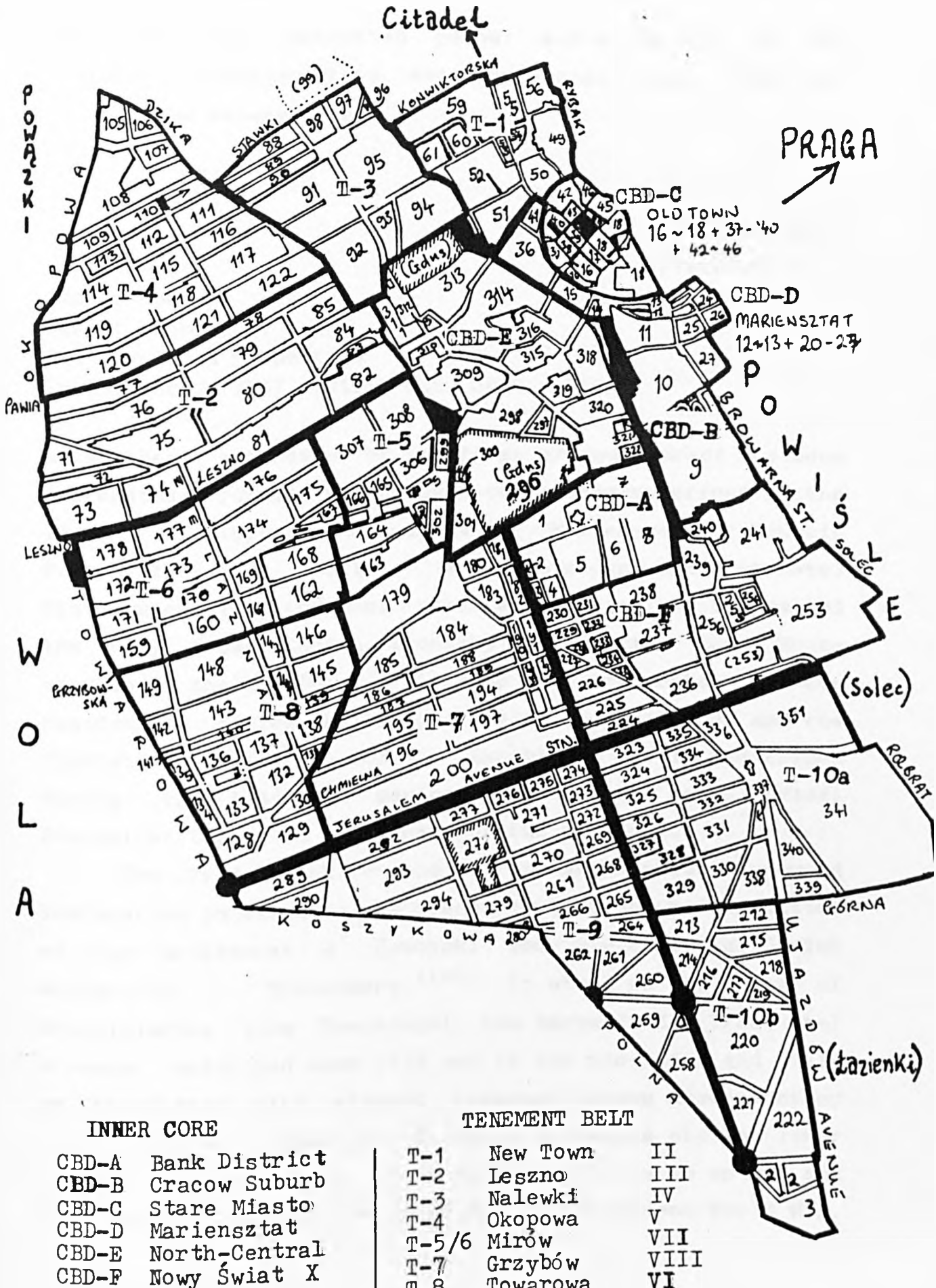
Quarters consisting of street blocks portraying a degree of consistency in property types, apartment sizes and housing



Functional district (sub-area)	Total developed properties	Total number of:			Population		Mean number of:					
		habitable apartments	nonhabitable apartment subdivisions	habitable rooms	(census) 1919	(estimate) 1913	habitable apartments per property	rooms per apartment	inhabitants per property		per room	
1	2	3	4	5	6	7	8	9	1919 10	1913 10 <sup>a</sup>	1919 11	1913 11 <sup>a</sup>
A/ Cracow Suburb	228	4302	852	12770	17138	(18258)	18.8	3.0	75.2	(80.1)	1.3	(1.4)
B. Castle CBD-												
C. Old Town core	242	4089	338	6968	15858	(16895)	16.9	1.8	65.5	(69.8)	2.3	(2.4)
D. Mariensztat	56	1741	106	3592	7028	(7488)	31.0	2.3	125.9	(137.7)	1.8	(2.1)
E. Admin. Centre	312	5167	2130	18015	23847	(25407)	16.6	3.6	76.4	(81.4)	1.3	(1.4)
F. New World CBD	364	7649	1258	25808	32843	(39316)	21.0	4.0	90.2	(108.9)	1.1	(1.5)
F New Town (II)	213	4578	527	10903	26272	(27990)	24.0	2.5	123.3	(131.4)	2.4	(2.6)
B E L Leszno (III)	451	14014	1354	31537	66776	(73347)	31.1	2.5	148.1	(162.6)	2.1	(2.3)
B N A L E W K I (IV)	255	9518	3205	25020	51581	<u>54745</u>	37.3	2.6	202.3	<u>214.7</u>	2.06	<u>2.19</u>
Okopowa (V)	335	11761	879	20180	54173	(65912)	35.1	1.9	161.7	(196.8)	2.6	(3.3)
F Mirów - CBD	65	2619	321	5653	13363	(14237)	40.3	2.6	205.6	(219.0)	2.4	(2.5)
E M E N Mirów (VII)	289	9649	785	22205	43177	(53725)	33.4	2.5	149.4	(185.9)	1.9	(2.4)
E M E N GRZYBÓW (VIII)	428	13195	2034	37690	65587	<u>70124</u>	30.2	2.9	153.2	<u>163.8</u>	1.74	<u>1.86</u>
Towarowa (VI)	325	11532	709	22814	52433	(58290)	35.5	2.0	161.3	(179.4)	2.3	(2.6)
E N Koszyki (XI)	409	10549	919	34347	45992	(51051)	25.8	3.3	112.3	(124.8)	1.3	(1.5)
E N South/South-East (XII/IX)	555	13780	1176	46690	59499	(71036)	24.8	3.4	107.2	(128.0)	1.3	(1.5)
HISTORIC ADMIN. 1 and CBD CORE	1202	22921	4657	67153	96714	(107364)	19.1	2.9	80.5	(89.3)	1.4	(1.6)
T E N E M E N T B E L T	3325	101195	10733	257039	478853	(540457)	30.4	2.5	144.0	(162.5)	1.9	(2.1)
S T U D Y A R E A	4527	124116	15390	324192	575567	(647821)	27.4	2.6	127.1	(143.1)	2.8	(2.0)

8. SUMMARY DATA OF THE AREA UNDER INVESTIGATION

Figure 2.3: Sub-study areas in the Mid-Town



- INNER CORE**
- CBD-A Bank District
  - CBD-B Cracow Suburb
  - CBD-C Stare Miasto
  - CBD-D Mariensztat
  - CBD-E North-Central
  - CBD-F Nowy Świat X

**ASSIMILATION ZONE**  
 Street blocks:  
 163-66, 299-308  
 in VII and XII

- TENEMENT BELT**
- |               |             |                         |
|---------------|-------------|-------------------------|
| T-1           | New Town    | II                      |
| T-2           | Leszno      | III                     |
| T-3           | Nalewki     | IV                      |
| T-4           | Okopowa     | V                       |
| T-5/6         | Mirów       | VII                     |
| T-7           | Grzybów     | VIII                    |
| T-8           | Towarowa    | VI                      |
| T-9           | Koszyki     | XI                      |
| (Pomological) |             |                         |
| T-10a         | South-East: | { XIII - Aleksandryjska |
| T-10b         |             | { IX - Ujazdów          |

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densities are presented below: sub-areas A-F in the historic, administrative and commercial centre; districts 1-10 in the tenement belt.

CBD IN CASTLE DISTRICT  
(Plate V<sup>a</sup>)

(Inner Core A)  
Street block nos. 1-8  
110 developed properties  
Inhabitants : 7967 (1919), est. 8488 (1913)

A southern extension of the first *arrondissement* has been segregated, forming an approximate rectangle defined by the lines of (upper) Marszałkowska, Królewska, Krakowskie Przedmieście-Nowy Świat and Świetokrzyska streets. State-owned institutions, private palatial residences and the Holy Cross Church fronting the formal Royal Route predated the 1860s. A group of monumental private residences, office buildings, religious buildings and the "Zachęta" Fine Arts Society Exhibition Hall had arisen during the 1864-1914 period, facing the neo-Classical Evangelist Temple on the square of the same name.

The Trade Bank - the first such privately-owned institution in Warsaw - was opened in 1870 on the initiative of the aristocrat J. Zamoyski and plutocrat of Jewish background, L. Kronenberg.<sup>(161)</sup> It stood on the corner of Włodzimierska (now Czackiego) and Berga (today Traugutta) streets, which had been laid out in the mid-1860s and built up thereafter with elegant tenement houses accommodating banks, insurance companies, building societies etc. on lower storeys and expansive flats for the well-to-do on 2nd and 3rd floors (largely destroyed during the Second World War,

apart from several still grandiose properties which have continued to operate as banks). High quality housing, with retail and business premises located on ground or first-floors, were mainly raised in this area during the 1860s and 1870s (Mazowiecka, Erywańska - today Kredytowa - (upper) Jasna, Rysia and Szkolna streets), recording in 1919 an average of 4 rooms in inhabited apartments and 1 person per room, not allowing for servants' quarters and basement flats in which housing conditions would have been considerably more crowded. On Zielony Square, Marszałkowska and Królewska streets many properties were later extended (c.1895-1900 and 1910-'14), while a number of new buildings were put up, replacing smaller, stone buildings ill-adapted to the functional and speculative demands placed on them.

Comparable building patterns and housing densities have been identified from street block data analysis in this central banking district and the neighbouring commercial quarters of the 10th *arrondissement*, (Nowy Świat above the river escarpment; cf. CBD-F). In the schematised mapping of Warsaw's functional zones (cf. Plate IV<sup>b</sup>) a focal point for the leftbank built-up area was taken to be Zielony Square, situated roughly halfway between the representative squares and public institutions of the 12th *arrondissement* and the business-commercial and trading quarters located in the 10th. *arrondissement* with parts of neighbouring commissariat VIII.

THE CRACOW SUBURB  
(Plate V<sup>a</sup>)

(Inner core B)

Street block nos. 9-15, 36 + 41

118 developed properties

Inhabitants : 9171 (1919) ; est. 7967 (1913)

The University (Russian language obligatory after 1869), residence of the Warsaw Province viceregent (*namiestnik*), public buildings, including the Museum of Agriculture and Industry, some 18th. century palaces and predominantly Baroque churches, were located on Krakowskie Przedmieście. Other representative buildings were located on Miodowa street; e.g. the regional courts, in a former aristocratic palace, and the Russian Orthodox Cathedral of the Holy Trinity, adapted from a previous RC church. Smaller housing predating urban development of the industrial age, in some cases originating from the 17th. century, had survived in enclaves on the so-called Cracow Boulevard, Bednarska, Miodowa and Długa streets (the name "Cracow Suburb" - Krakowskie Przedmieście - indicates the street's origins as a mediaeval suburban high road initially leading to Czersk and later to Cracow.<sup>(162)</sup> Tenement infill properties had replaced some of the pre- or early-industrial burghers' houses. The number of apartments in developed properties averaged out at 21, although this calculation may have been distorted by the large proportion of state-, municipal- and private- public properties which would have been recorded in the 1919 census as uninhabited or comprising only 1, 2 or 3 inhabited apartments. Average residential densities in properties at street block scale suggest two persons rather than one resided in habitable rooms. A greater adherence to the Kohl urban-class structure model thus existed in the

older houses or infill tenement properties of the Cracow Suburb than in the residential and commercial tenements of Włodzimierska, Berga, Mazowiecka, Erywańska and (upper) Marszałkowska streets raised in the 1860s and 1870s.

Parallels in building patterns and housing densities may be drawn between the representative public buildings and older or tenement infill properties of Cracow Suburb and those of the neighbouring 12th *arrondissement* which commenced from the western sides of Krakowskie Przedmieście and Miodowa Street.

THE OLD TOWN  
(Plate V<sup>a</sup>)

(Inner core C)

Street blocks nos. 16-18, + 37-40 + 42-46

242 developed properties

Inhabitants 15,858 (1919), est. 16,895 (1913)

It is evident that for centuries Warsaw had been an unimportant trading outpost far removed from the centres of mediaeval European and Byzantine civilisation. While ascending in political status from 1405 as the capital of a nominally independent, but nevertheless backward, kingdom (Mazovia), it compared poorly as a trading centre and royal residence with Prague, Cracow, Budapest, Wrocław/Breslau etc., let alone the great cities of Southern and Western Europe which were feeling the far-reaching implications of the Italian Renaissance and so-called early capitalism. As an urban centre on a European scale Warsaw does not really figure until the late-18th. century when it superceded the ageing Italian and Spanish cities, apparently following the

paths of a new generation of dynamic urban giants led by London, Paris and the imperial capitals of Central and Eastern Europe (i.e. Vienna, Dresden (at least initially), Berlin, St. Petersburg, Moscow and also Budapest). Warsaw, however, should not be perceived as an entirely 19th. century phenomenon in terms of its large-scale urban development before World War Two, any more than other Old World Metropolises. Its earlier growth as a late-medieval town followed by almost exactly two centuries as the Polish-Lithuanian Commonwealth's political seat, were to greatly influence the 19th. century city's urban profile and, to a lesser degree, its social structure.

The mediaeval district, formerly surrounded by Gothic defence walls pulled down or adapted during later housing construction on Podwale Street, had retained its dense street network and compact building pattern of 4- or 5-storey town houses raised on long, but very narrow (5-10m) building plots with single or double levels of attics. The Old Town's physical form remained unaltered throughout the 1864-1914 period, beyond a small number of tenement infill developments on Zamkowy (castle) Square and Podwale Street. The social geography of the mediaeval quarter is a different question altogether. At least two inhabitants to a room have been calculated in the properties of every street block constituting the Old Town, while in street blocks 45 and 46 three or more residents per inhabited room are recorded. The apartments of former merchants' houses were inevitably smaller than in properties of the tenement belt as a direct consequence of the dominant nature of housing construction in the Old Town.

There had been a time when the houses of the Old Town had belonged almost exclusively to wealthy merchants and

patricians. When Warsaw became the political and royal seat of the Noble Republic in the late-16th. century, the mediaeval hub proved too small by far to comfortably accommodate the flood of royal dignitaries, church officials and nobles moving to the new capital. The new urban elite, displacing the increasingly impoverished burgher class, in time raised sumptuous residences, mainly in the Baroque style, outside of and even far beyond the mediaeval walls, and the Old Town began its gradual, but irreversible decline. By the dawning of the 19th. century, the Old Town had lost almost all vestiges of its former hegemony, emphasised by the demolition in 1818 of the former Town Hall in the Market Square. It is perhaps only by an ambiguous quirk of fate, connected with the raising after 1831 of the Alexander Citadel which was to eventually block the city's northward spatial development that mediaeval Warsaw was spared some aggressive town planning concepts envisaged for it in the mid-19th. century along similar lines to Baron Haussmann's semi-liquidation of mediaeval Paris. A southerly and south-westerly growth orientation following Krakowskie Przedmieście and Senatorska street had already become strongly accented by the late-18th. century (cf. inner core sub-areas B and E (XII)), continuing along Nowy Świat with the parallel North-south axis of Marszałkowska and Elektoralna-Elektoralna-Twarda streets (cf. inner core sub-areas A and F, as well as tenement belt-*arrondissements* III, VII and VIII respectively).

The subdividing of former merchants' houses and leasing of small, singleroom and two-room apartments to poorer urban dwellers was undoubtedly already underway prior to the 1860s, and was to continue throughout the period under investigation. The Old Town therefore became a rundown



inner urban quarter. Its evident stagnation during an era of large-scale urban expansion emphasises the mediaeval nucleus had become a discarded area situated on the northern edge of the city centre which was evolving to the south and south-west. (163) The Old Town's dilapidation was reflected in the fate of its only surviving public building (ignoring the 3 also somewhat rundown RC temples); the former Royal Castle of the kings of Poland, adapted to serve as a residence for the Russian governor, or gubernator, of the so-called Vistula Provinces, ("Privislinskij Kray").

Tenement property development during the 1864-1914 study period was almost entirely absent from the Old Town (refer to "SINGLE-BUILDING PROPERTIES" and "2-BUILDING PROPERTIES" in Chapter 9 under section "Applying building components to tenement house typology").

THE MARIENSZTAT BRIDGEHEAD

(Plate V<sup>a</sup>)

(Inner core D)

Street block nos. 12, 13 and 20-27

56 developed properties

Inhabitants : 7028 (1919), est. 7488 (1913)

Considerable attention has been devoted to delimiting an inner-peripheral zone within the inner city. An urban divide has been identified between the "Main City" situated above the Vistula escarpment and the leftbank riverside district of Powiśle. Only in one place below the escarpment had compact property development occurred; at a long-established bridging point of the river between the West Bank and East Bank (inner) suburb of Praga. 2- or 3-

room apartments prevailed in "medium"-sized or "barracks"-type houses consisting of between 12 and 50 or even more flats, and recording average residential densities of 2 persons per inhabited room unit (in 1919).

This leftbank riverside enclave, founded in the 18th. century as a private township with its own market place and known as Mariensztat, was built up initially along roads descending the escarpment from Krakowskie Przedmieście (Bednarska and Mariensztat streets) with late-18th. century and early-19th. century town houses of one or two upper storeys. A succession of pontoon bridges, destroyed periodically by war or the Vistula's strong river current, connected Bednarska Street with Szeroka Street on the opposite shore (neo-Classical customs houses dating from the 1820s still extant). Pontoon bridges, apart from ferries, continued to provide the only connection between left- and rightbank Warsaw throughout the 18th. and first half of the 19th. centuries. The constructing of a stone embankment in the 1820s, halted in 1830 and recommenced only in the 1890s, did at least protect this part of the riverside district from less serious annual flooding. A brick viaduct leading from the convergence of Krakowskie Przedmieście with Castle Square was completed in 1847, initially descending to the pontoon bridge by means of a curving road elevated on an earthen embankment (Nowy Zjazd); later built up with tenement houses and a number of immense, early-20th. century warehouses incorporating 2- and 3-room flats inhabited by as many as 200 residents (street block no.21). Pancer's Viaduct was connected in 1864 to Warsaw's first permanent bridge since the 17th. century; the Kierbedź Bridge, named after its designer. In spite of an original concept of constructing a station terminus for the St. Petersburg

railway line on Castle Square, the covered metal bridge ended up serving road traffic, linking up with the recently laid-out system of boulevards on the Praga side. (164)

The idea of raising a second, parallel bridge, connecting Karowa and Brukowa streets, was toiled with in the 1890s to take increasing traffic pressure off the Kierbedź Bridge, but this concept never developed further than realising a second viaduct, designed as a triple-curving coil, soon dubbed "the Snail" (*Ślimak*) which descended from the Krakowskie Przedmieście end of Karowa Street to the riverside district. (165) The projecting of a bridge to link the new commercial centre with the East Bank was ultimately given priority, and opened just before the outbreak of World War One, (the present Poniatowski Bridge and Viaduct).

THE 12TH ARRONDISSEMENT  
(Plate V<sup>a</sup>)

(Inner core E)

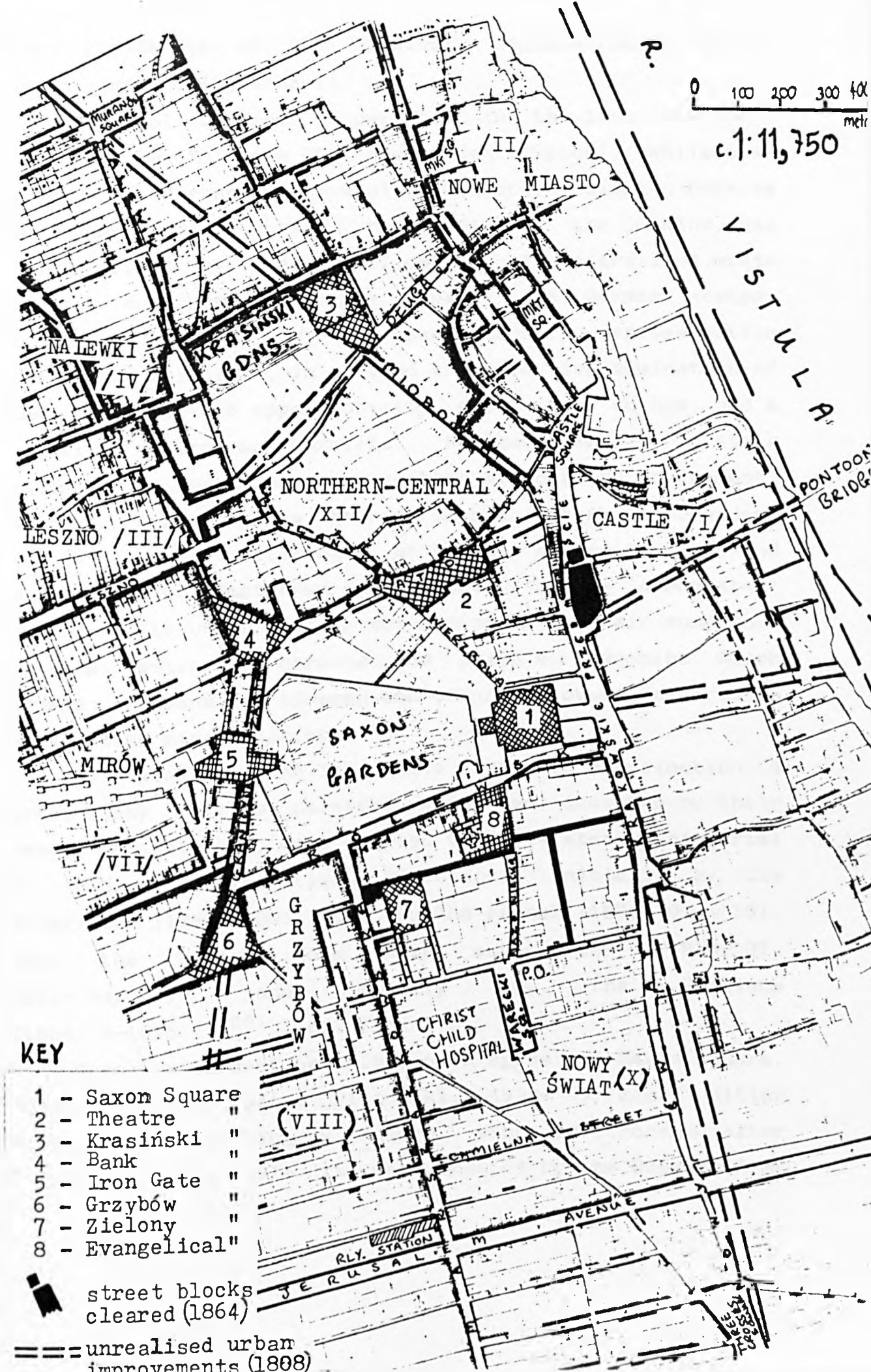
Street Block nos. 296-322

312 developed properties

Inhabitants : 23,847 (1919), est. 25,407 (1913)

The official or prestigious character of the northern-central district has been deduced already from a series of town squares, most of which had originally functioned as or had been enlarged from, previous magnatial or royal palace courtyards, (cf. Fig. 2.4). The Krasiński and Saxon town parks situated within the 12th *arrondissement* had been laid out respectively in the 17th. and 18th. centuries as palace gardens (*ogrody*) for the magnificent

Figure 2.4: Public squares in the city centre (superimposed on a street plan from 1864)

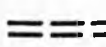


KEY

- 1 - Saxon Square
- 2 - Theatre "
- 3 - Krasinski "
- 4 - Bank "
- 5 - Iron Gate "
- 6 - Grzybów "
- 7 - Zielony "
- 8 - Evangelical "



street blocks cleared (1864)



unrealised urban improvements (1808)

town residences of the Krasiński magnate family and the Saxon monarch, Augustus II.

The Polish urban experience in the 17th. and 18th. centuries would seem to have been atypical. While town growth in virtually the whole of Europe, including Petrine and post-Petrine Russia, but excluding the Balkans, was characterised by the consolidation of centralised state power; autocratic (France, Spain, the German states, Austria, Russia) or by parliamentary representation (Holland, Britain), in Poland the effective domination of the magnates and upper nobility, among other things, had a negative effect on townlife. Baroque Warsaw, in stark contrast to contemporaneous centres of royalist government, such as Paris, Naples, Madrid, Vienna, Stockholm, Dresden, Berlin and St. Petersburg, or booming cities of trade and commerce like Amsterdam and London, became a magnates' ghetto. Its urban profile was dominated by their sumptuous palaces, extensive gardens and private townships which housed artisans, tradesmen and other employees required to serve these mini autocrats.

Following the Polish Noble Republic's extinction, a great many of these palatial residences, deserted by their owners or sold off, were adapted to serve state-ministerial or public-administrative functions; initially by the Prussians (1795-1806), then by the French (1806-'9 - '15), then the Polish Home Rule authorities (1815-'31, 1831-'64/'69), and finally by the Russians (1864/'9-1915).<sup>(168)</sup> (cf. Fig. 2.5).

Warsaw's largest urbanised open space was Saxon Square, (1935-'39 named after Piłsudski, 1939-'45 Adolf Hitler Platz, 1945-'90 Victory Square, since 1991 renamed after Piłsudski). In 1914 it was fronted by the Russian Army

District Headquarters (formerly the Saxon palace), a military hospital (former Brühl Palace), army administrative offices and the city's first industrial age hotel, aptly named the "European" (*Europejski*), as well as two groups of comparatively elegant tenement houses on the northern and southern sides of the square. Between 1894 and 1913 an enormous, but well-proportioned Russian Orthodox Cathedral (*Sobór*) was erected in the middle of Saxon Square which was very antagonistic to Polish patriots and/or fervent Catholics and was pulled down in the mid-1920s, (architect L. Benois). (167)

The extremely monumental and still-standing Grand ("Wielki", not "Bolshoi") Theatre and Opera House stood on the suitably-named Theatre, originally Marywil, Square, facing the (new) Town Hall and municipal offices. Former State Bank and Treasury edifices were located on Bank Square, while a complex of central court buildings and the Civil Tribune, adapted from previous noble palaces, were concentrated around Krasiński Square. The Reformed Synagogue for Polish or German-speaking, acculturated Jews faced Tłomacki Square, which had been laid out in the late-18th. century and was still fronted by two-storey neo-Classical houses.

Elegant tenement properties and monumental-looking, if not monumentally-proportioned, neo-Classical houses from the late-18th. and early-19th. centuries, apart from state, municipal and private public institutions, were also located on representative streets connecting these town squares : Królewska Street (Stock Exchange adapted from former royal stables, "Nowy" Theatre); the western sides of Krakowskie Przedmieście and Miodowa Street (Count Józef Potocki's Palace, former Saxon Post Office, Cracow Bishops' residence,

former Tepper family residence, RC Transfiguration Church, RC Archbishop's Palace); (lower) Długa Street (large hostels and inns, royal Arsenal housing the State Penitentiary); Bielańska Street (new State Bank, Zawisze family residence); Senatorska Street (branch of the Russian Ministry of War, St. Anthony's RC church and convent, Count Zamoyski's Palace, the Merchants' Society Headquarters) and Wierzbowa Street. Apart from side- and back-roads (Trębecka, Nowosenatorska, Daniłowiczowska, Niecała, Kotzebue (etc.) there were also cul-de-sacs : Hipoteczna Street (leading to one part of the Land Registry Office and the "Novosti" Russian Theatre), and Kapucyńska Street (leading to the second, main Land Registry Office which has survived to this day and now faces onto the rationally laid out but noisy East-West thoroughfare).

Although the 12th *arrondissement's* representative and administrative functions were well-defined, commercial buildings also figured prominently in certain places; e.g. the Luksemburg shopping gallery, baron Lesser's emporium and the enormous Simons trading centre complex and banking house on the corner of Nalewki and Długa streets, apart from the inevitable luxury shops, two-level department stores and fashion salons, and more banks located in so-called palatial tenement properties, especially on or behind Krakowskie Przedmieście, Senatorska and Bielańska streets.

#### Zelazna Brama Square and Quarter

Housing tended to be smaller and/or of higher quality in the 12th *arrondissement*, indicated by the predominance in

most street blocks of 3-, or 4- or 5-room apartments and properties accommodating anywhere between as few as 10 to 80 residents. Beyond isolated enclaves of consistent "barracks" tenements are recorded in street blocks 307 and 316. However, a quarter situated "behind the Iron Gate" of the Saxon Gardens has become prominent in the statistics of annex table VII where property types of substantially "barracks" composition prevailed, containing more than 30 apartments and housing around 200 residents. This distinctive quarter within *arrondissement* XII, defined by street blocks 299, 302 and 304-'6 had taken shape around Zelazna Brama (Iron Gate) Square. This sixth public square lying within the 12th *arrondissement* was known as the "stomach" of Warsaw, playing host to the city's main open market and the first municipally-owned covered market hall, the Gościenny Dwór, which had been opened in the 1840s (street block no. 303).<sup>(168)</sup> Although Christian traders also operated here, the Iron Gate markets had been traditionally, and were to remain until World War Two, the domain of Jewish wholesalers, retail traders and street vendors, many of whom lived on and behind the square. Furthermore, counting houses, commission- and brokers shops - contrasting with the sumptuous banking premises and fashion salons of the Christian or acculturated Jewish commercial quarters of *arrondissements* I, X and XII - were located on or in the vicinity of Iron Gate and Grzybów squares. These enterprises of commerce and trade belonged in the main to the so-called Lithuanian, meaning eastern, Jews, (*Litwacy*), who had migrated in large numbers to Warsaw following pogroms by the tsarist authorities during the 1880s and early-1890s in numerous Russian cities. These immigrants prospered from their intimate knowledge of the



Russian market and the trading of products between the Empire and western Europe. Geographically, Warsaw was and remains excellently situated for the conducting of such transactions.

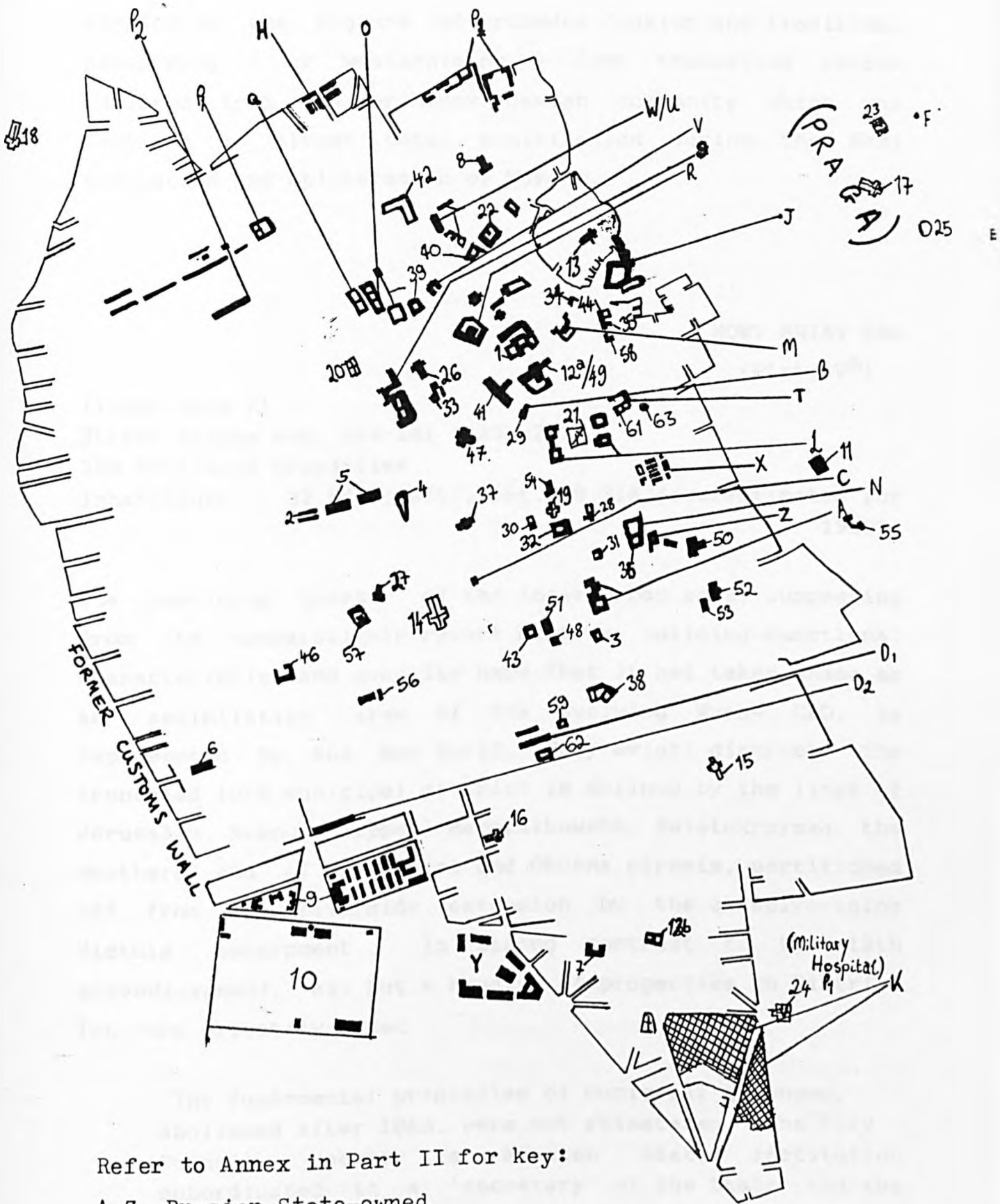
This second commercial hub within Warsaw's urban-functional profile, featuring what interwar Polish publicists often liked to refer to as "eastern", or "oriental", traits, contrasted with more "western"-orientated capitalist institutions based in other parts of the so-called CBD (cf. inner core sub-areas B and F). Jewish counting houses, trading emporia and brokers shops had also been set up on nearby Krochmalna Street and Mirów Square, (cf. Mirów "CBD"/tenement belt district 5), and Grzybów Square with its also long-established open bazaar (cf. Grzybów tenement belt district 7). The Jewish district of Nalewki was characterised by innumerable small commercial businesses and artisans' workshops, as well as another market and a large, open bazaar (cf. tenement belt district 3). The previously-mentioned shopping gallery owned by the acculturated Jewish entrepreneur Maksymilian Luksemburg, the Lesser trading emporium and Simons trading centre complex were also predominantly Jewish commercial affairs (cf. Fig. 2.5).

19th. century Warsaw's urban economy relied heavily on the activities of its Jewish populace (in 1910 constituting 39.2% of the urban population within the pre-1916 administrative area). Nevertheless, the Jewish and Christian Polish communities apparently lived in comparative isolation from and relative ignorance of each other. The acculturated Jewish "Haskala" presented a certain link between these two culturally and religiously distinct, fundamental elements of Warsaw's urban society, but by

Figure 2.5:

Principal state, municipal and privately-funded public buildings

•I



Refer to Annex in Part II for key:

- A-Z Russian State-owned
- 1-12b City property and municipally-funded projects
- 13-27 Religious temples
- 28-63 Private buildings intended for public use

abandoning the rigours of orthodox Judaism and tradition, polonising - or westernising - Jews themselves became isolated from the orthodox Jewish community which was destined to almost total annihilation during the Nazi occupation and obliteration of Warsaw.

NOWY SWIAT CBD  
(Plate V<sup>b</sup>)

(Inner core F)

Street blocks nos. 224-241 + 253-257

364 developed properties

Inhabitants : 32,843 (1919), est. 39,316 (overestimated for 1913?)

One remaining quarter of the inner urban core, suggesting from its comparatively recent history, building-functional characteristics and even its name that it had taken shape as an assimilation area of the evolving Warsw CBD, is represented by the New World, (Nowy Swiat) district. The truncated 10th municipal district is defined by the lines of Jerusalem Avenue, (upper) Marszałkowska, Świątokrzyska, the northern end of Nowy Swiat and Oboźna streets, partitioned off from its riverside extension by the steeply-rising Vistula escarpment. In strong contrast to the 12th *arrondissement*, all but a handful of properties in District Ten were privately owned.

"The fundamental principles of municipal autonomy, abolished after 1863, were not reinstated. The City Council became a Russian state institution subordinated to a 'secretary of the State' and the Interior Ministry. The general-governor's agreement

had to be secured for any municipal expense exceeding 5000 roubles, while any expenditure of more than 30,000 roubles could only be carried out with official permission from St. Petersburg. The tsar himself frequently determined the fate of proposed municipal investments - and frequently this ended with a firm 'no'. Tsarist state bureaucrats intended" (i.e. after 1864) "to treat Warsaw as a typical provincial centre which was not supposed to in any way rival with the two imperial capitals." (169)

Municipal investments, nevertheless, played a very significant part in consolidating the evolving metropolis's infrastructure; most clearly reflected in the construction of a new water supply and sewer system after 1885 which was very up-to-date for those times; a source of some pride for the city fathers and of envy for both St. Petersburg and Moscow. Beyond this on the whole successful investment, most of the modest annual municipal budget was spent throughout the 1864-1914 era on policing, street maintenance, the laying out of a very modest number of new roads, and paying off interest on debts incurred from borrowing from private sources. Only minimal sums could be afforded for municipal building projects, social welfare and education. (170) In the developing hub of the commercial centre there was a very marked absence of municipally-owned and, notably, state-owned property. It has been seen that most buildings of state administration were located in the 12th *arrondissement*, themselves adapted from earlier noble-magnatial, and royal residences or defunct Home Rule ministeries.

Apart from ribbon growth along this district's long-established high street, Nowy Świat, echoed to a much lesser degree along the parallel Szpitalna-Bracka streets

and western side of upper Marszałkowska Street, the 10th *arrondissement* had remained a semi-rural southern suburb on the edge of the Main City until the opening of Warsaw's first railway line and terminus on the corner of Marszałkowska Street and Jerusalem Avenue in 1845. As a direct consequence of the New World district's delayed development, no grand public buildings had been put up in this part of the city to reflect more fortunate, perhaps, times before Warsaw had been assigned to comparative political insignificance within the tsarist empire.

An extension of the Musical Academy, closing the perspective of Ordynacka Street, and raising of the Philharmonic Hall on New Jasna Street (1899-1902), nominally initiated by the City Council, were funded mainly by public donations. Private cultural, entertainments, public services and education institutions originating from the study period included: the (new) Circus and Krasiński Estate Library on the newly-opened Okólnik Street; the (new) Ophthalmic and neighbouring Red Cross hospitals on Smolna Street; the Polish Theatre off Aleksandryja Street and Miniaturists' Theatre on New Sienna Street; several garden theatres, later pulled down or adapted into the first cinemas, and a grandiose ice-skating hall known as the Palais de Glace behind Nowy Świat.

With the one major exception of the new Main Post Office on Warecki Square, the state authorities put up no ministerial buildings, public offices, state theatres, opera houses, museums, public libraries, etc. in the city centre, or even a desperately-needed from the 1890s central railway station. (171)

The 10th *arrondissement* more than any other part of the inner urban core was dominated both physically and

visually by private housing, although around 15% of all apartment subdivisions in 1919 were taken up by non-residential, retail or office-business premises, (compared to c. 29%, including institutional premises, in the 12th *arrondissement*). The emergence of Nowy Świat from the early 19th. century as both a residential and service district for the expanding urban middle class could be interpreted as analogous to the rise of London's West End from the end of the 17th. century. While in the case of London the horrific destruction wreaked by the Great Fire of 1666 induced many wealthier Londoners to build new homes on open land stretching to the west, (but also the east) of the City, in Warsaw private building from the 1830s was directed increasingly southwards, (but also westwards) by the raising after 1831 of the Russian Citadel which, extended during the Crimean War (1853-'56), essentially blocked all northward spatial growth, even on the Praga side of the river. (172)

Housing densities in 1919 rarely exceeded 1 person to a room and the number of rooms per inhabited apartment evened out at between 3 and 5 in most New World street blocks, rising to 6 or more rooms in early-20th. century luxury apartment blocks well represented by 5 properties forming street block no. 233, put up on the site of a hospital complex demolished in 1899. Large flats and the taking up of lower storeys with office and retail space had led to mean apartment calculations falling below the "barracks" housing threshold of 20, even though building plots in District X were compactly developed and buildings generally high. Some urban residences owned by plutocrats and aristocrats were raised along the escarpment (Foksal Street) or were adapted from older palatial complexes fronting Nowy Świat (street), apart from two interesting

examples of high status apartment houses designed as palaces entered from Bracka Street by a courtyard hidden from the street by frontal buildings, (tenement palaces rather than palatial tenements; cf. Part III).

By the late-1890s land values in the centre had risen so dramatically 100 roubles were being paid for a square metre of land on upper Marszałkowska Street.<sup>(173)</sup> Town houses on Nowy Świat and Świątokrzyska streets, originating from the late-18th. and first half of the 19th. centuries, were being heightened from the 1890s and outbuildings extended, or else frontal and back-buildings were pulled down to be replaced by multi-storey tenements. This process was reflected on Nowy Świat by an increasingly "toothgap" profile where once had reigned a consistent arrangement of almost entirely two-floor housing, (reconstructed as such somewhat dogmatically after 1947).<sup>(174)</sup> Tenement housing of the "barracks" kind was consistent behind Nowy Świat on the escarpment side, (street block nos. 240, 253 and 255), as well as on Widok Street and the Marszałkowska end of Chmielna Street, (nos. 224 and 225). These properties may be identified as belonging to a number of sub-building phases within the 1864-1914 period under research and, having in the main survived the last (European) war and post-war redevelopment, present themselves as tenement house study cases (cf. Chapter 11). The Jabłkowski Brothers; Department Store on the corner of Chmielna and Bracka streets, (1913-'14, still extant), incorporating a multi-storey, counter-service purchasing area, warehouse and private residential apartments, together with the "Rosja" (Russia) Insurance Company headquarters on Marszałkowska Street, (1897, rebuilt along modernist lines after 1945), containing apartments on upper floors for well-to-do

[d]

(d)

citizens and their servants, represent primarily commercial buildings also operating as tenement houses in Warsaw's CBD.

It would seem self-evident from the envisaged, but never realised, replacement of the Vienna-Warsaw Station at the intersection of Marszałkowska Street and Jerusalem Avenue, as well as from the fate of the former Society for the Friends of Science, which school of architectural style the St. Petersburg bureaucrats, and even the tsar himself, favoured. The neo-Classical palace named after Stanisław Staszic, who in 1818 founded the said society for the propagation of knowledge, had lost its initial function in the wake of the first 19th. century Polish uprising against Russian overlordship (1830-'31). Following the second disastrous insurrection of 1863-'64, the tsarist authorities this time took over the building for good and (on the grounds that a wooden Russian Orthodox chapel had stood on the palace's site at the time of the Smuta when the Polish king, Sigismund III, followed by a group of Polish magnate adventurers had attempted to place their own tsar on the Russian throne) first set up a Russian boy's grammar school in the building, later rebuilding the entire structure in what was termed a neo-Byzantine style, (1892-'93). In this way, a public building associated by all educated Poles with the Polish Enlightenment was transformed into a Russian-language school and Russian Orthodox chapel. The "russified" palace in itself was aesthetically redesigned and well-proportioned, but its fundamentally Russian character and, most unforgivably, its location, dwarfing the Copernicus Monument which had been specifically ordered by the abolished society to stand in front of the Staszic Palace, were bound to antagonise the Polish, and even non-Polish, citizens. In this respect it was perhaps for



the best that St. Petersburg did not pay out more money - or, more in accordance with its methods, tax its unfortunate subjects - to finance the construction, or reconstruction, of magnificent state- or public-institutional edifices in Warsaw (as national governments tended to do during the so-called "Imperial Age" in the capitals and larger provincial centres of most European and many non-European countries; indeed as the Home Rule Polish authorities had been doing prior to their disbanding by tsar Alexander II in the 1860s). (175)

Tenement house building forms in the city centre

The centre of Warsaw during the late-19th. and early-20th. centuries is thus seen to have been partially taken over by tenement housing incorporating to a greater or lesser degree commercial headquarters, offices, department stores, but also smaller trading and business premises, on lower levels of, but very rarely in separately-designed, buildings. Residential accommodation was provided on upper storeys, or in subsidiary buildings of the same property. Even the few essentially or entirely non-residential properties put up in the CBD, such as the Philharmonic Hall, Post Office, Krasinski Estate Library, Polish Theatre (all within CBD-F sub-study area), school buildings, private institutions etc., squeezed into restrictive and very costly building plots, themselves resembled monumental tenements. In central quarters where older building predominated, "barracks"-type properties were raised by a process of tenement infill, either in the depths of the building plot.

(often replacing gardens as well as wooden or low, brick service buildings), or on the site of demolished older edifices. More consistent tenement development had occurred from the 1850s (with notable prototype and some pre-barracks housing constructional forms surviving to our own times which originate from the 1830s and 1840s) in Nowy Świat commissariat in areas where urbanisation prior to opening the first railway terminus in Warsaw, at the intersection of Marszałkowska Street and Jerusalem Avenue, had been marginal (cf "Phases in the evolution of Chmielna Street profile c. 1830-1914" in Chapter 11).

The commercial tenement and infill tenement properties may be interpreted as composite building forms evolving during the study period in the inner urban core to "barracks"-type housing in the true tenement belt stretching to the north, west and south of Warsaw's city centre.

CHAPTER 6

THE TENEMENT BELT

Tenement house homogeneousness

Analysis of properties at street block scale has been based on mean calculations of apartments (uninhabitable as well as habitable) and residents for developed properties grouped in street blocks (columns 8 and 10 of annex table VII). By dividing the number of developed properties for a given street block into the total number of apartments and residents, two indicators of property size at street block scale are obtained; building-constructional (apartments) and social (residents). This simplistic method of identifying property size in relation to street block spatial units is expected to come closest to reflecting the actual state of affairs in extensively built-up quarters of the city. The base plan has revealed most street blocks in the tenement belt to have been compactly built up, but, moreover, that groundplans of developed building plots in the tenement belt tended to be homogeneous. Fluctuations in mean apartment and residential calculations per developed property between street blocks in large parts of the tenement belt have thus turned out to be quite small (cf. tenement belt districts 1, 2, 3, 5/6, 7, 9 and 10). However, widely-contrasting property sizes have been recorded in the street blocks of what have been identified as invariably poorer quarters of the tenement belt (cf. tenement belt districts 4 and 8, as well as parts of 2, 6 and 7).

A broadly observable, but fundamental characteristic of the tenement belt has been proven, therefore, to be its comparative consistency in urban form and social-functional

structure, in contrast with the city centre and inner-peripheral districts (cf. plates VI<sup>a</sup>-VI<sup>b</sup> in which the base plan taken from a 1:2500 scale map of Warsaw drafted in 1925 and revised in 1936 covering the tenement districts T-1 to T-10 has been reduced by 100% to a scale of 1:5000). This homogeneousness has greatly aided a systematisation of tenement property groups (and eventually types) according to street block and even entire inner-city quarters based on the property census results of 1919 (cf. Figs. 3.1 and 3.2 in Chapter 9; also "The evolution of tenement house ground-plan" section).

A general lack of homogeneousness in physical form and housing densities between inner-urban core street blocks can be explained by :

(a) a high degree of functional specialisation in many city centre properties, thereby reducing the number of habitable apartments in properties, particularly in *arrondissements* X and XII;

(b) the intermingling of different building types from different periods of urban development, broadly recognised as either predating or coming after the late-1850s or 1860s;

(c) the prestigious status of a majority of city centre properties, reflected in large, multi-chamber flats, significantly reducing the overall number of habitable apartments in tenements (a feature also strongly-defined in certain parts of the southern districts and, to a lesser extent, in the Jewish commercial core-districts of Nalewki, "behind the" Iron Gate Square, together with Grzybów Square in *arrondissement* VIII).

Apart from the proletarian characteristics of Okopowa and Towarowa "barracks-quality" (if not entirely tenement-) housing districts within the pre-1870 customs wall, the

marked decline in continuity between street blocks beyond the tenement belt, reflecting significant changes both in urban form and prevailing social structure, is to be examined more closely in connection with the inner-peripheral zone in transition (cf. Chapter 7).

(tenement district 1)

THE NEW TOWN

(truncated *arrondissement* II)

Street block nos. 49-56 + 59-62

(Plate V<sup>a</sup>)

213 developed properties

Inhabitants : 26,272 (1919), est. 27,990 (1913)

It has been seen that physical form in the mediaeval quarter (cf. inner core area C) underwent insignificant alterations during the study period. The original northern mediaeval suburb, located with its own market place and town hall in 1408 and named the New Town to distinguish it from Warsaw *intra muros*, had been partially transformed since the mid-19th. century, becoming a district of "barracks"-type structural and residential characteristics (24 apartments and 123 inhabitants per developed property in 1919).

The development of New Town district took place during the study period in two main phases: (i) consistent tenement construction in the 1860s and early-1870s, replacing dispersed, low brick buildings on Świętojerska, Nowiniarska (demolishing of the former National Theatre facing Krasiński Square), Franciszkańska and Bonifraterska streets, as well as in the 1890s in connection with the laying out of Mławska Street; (ii) tenement infill projects or the heightening of pre-existing town houses on the New Town Market Place, Freta, Długa and Zakroczymska streets, from the late-1890s

and especially in the years 1910-1914, together with new or extended outbuildings creating interior courtyards behind these streets, given over to light industry as well as residential apartments. The New Town, isolated from the observed southward - and westward - growth orientation of the leftbank Main City, arising partially from the raising after 1831 of the Russian Citadel, was, like the Old Town, largely inhabited until 1944 by poorer urban dwellers, including factory workers and particularly artisans who possessed their own or were employed in small workshops located in basements and inner courtyards of tenement properties. (176)

Street blocks designated by numbers 49, 50 and 51, consisting of late-18th. or early-19th. century town houses which had been redeveloped, extended from the back or in places demolished to make way for tenement infill buildings, recorded on average 21 or 22 apartments per property. Residential densities in street block 49, averaging out at 2 or 3 residents per room, were particularly high. The Market Place, Freta, Mostowa and Długa streets were characterised by "toothgap" profiles composed of frontal buildings ranging in height from 2 to 6 upper storeys. The New Town was inhabited by a large Jewish population (40.5% in 1910) concentrated on Franciszkańska street which connected the Market Place with Nalewki (High) Street and district (cf. tenement belt district 3). Neighbouring street blocks 52, 60 and 61 were built up with larger properties containing between 30 and over 45 apartments, including a significant number of non-residential workshops or retail outlets located in courtyards, as well as groundfloors or basements of frontal buildings. Properties grouped in street blocks 53 and 54 were more typical of the New Town's urban form

prior to tenement redevelopment; i.e. narrow-fronted, neo-Classical houses of 2 upper storeys sub-divided into less than 20 2-room apartments and rented by poorer Polish tenants (2 persons to a room). Street blocks 55, 56 and 59, situated on the New Town's northern fringes where the Citadel Esplanade commenced, were less intensively built up with similar, rundown ex-merchants' houses as well as several tenement properties and two large complexes of Russian army barracks adapted from former noble palaces. Finally, street block number 62 consisted of a single building ensemble fronting Krasiński Square belonging to three owners with Yiddish-German surnames and subdivided into large, 5-room apartments: the only clearly-defined example of palatial tenement housing in the New Town.

(tenement district 2) LESZNO  
(truncated *arrondissement* III)  
 Street block nos. 71-86 (Plate VI<sup>b</sup>)  
 451 developed properties  
 Inhabitants : 66,776 (1919), est. 73,347 (1913)

The spatial growth of this district, originating from the creation in the early-17th. century of a private township, or jurisdiction (*jurydyka*), by the Leszczyński magnatial family, had been directed by the axis of its main street. An early example of magnate license to set up such satellite settlements, undermining Warsaw's logical spatial development for what he considered to be "speculative purposes" was identified in the Leszno by the urban historian, E. Szwankowski.<sup>(177)</sup> The laying out of Leszno Street and simultaneous demarcation of building plots

(between 16 and 22 m. wide by 97 m. on the northern side and 56 m. deep on the southern, Mirów district, side) involved erasing the historic prolongation of Długa Street, linking mediaeval Warsaw with the provincial town of Sochaczew. Craftsmen principally from Saxony and other parts of the Holy Roman Empire were encouraged by the Leszczyńskis to settle in their little town, creating a German-speaking community which was to retain its separate identity until the 20th. century, (their Protestant church still stands on Leszno Street, renamed after 1947 General Świerczewski Avenue, now Solidarność Avenue). The private township, together with Warsaw's other 29 magnate-noble and sacral jurisdictions, was liquidated in 1792, while the previous Leszczyński residence was taken over in the 1820s by the Polish Kingdom authorities and rebuilt to house the Treasury (at present City Hall on Bank Square; cf. inner core area E).

Running parallel to Leszno High Street, the former field roads of Nowolipie, Nowolipki, Dzielna and Pawia streets accentuated the east-west growth orientation. The working class social structure was most defined in peripheral concentrations of properties situated "behind" Smocza Street, represented by street blocks 71, 72 and 73 (dispersed "barracks" housing, smaller buildings and small factories; 3 or more residents per room), followed by street blocks, 75, 76 and 77 (more consistent tenement development; predominantly 3 or 2 residents to a room). The specific character and residential pattern of street block 74 may be explained by a RC nunnery and grounds adapted from a former nobleman's palace situated on the corner of (upper) Żelazna and Żytunia streets. Housing densities dropped with increasing proximity to the urban core, while the largest



properties, dating from the early-1870s or 1890s, were grouped in street blocks 78, 79, 80 and 81 (c. 28-40 apartments and c. 150-220 inhabitants per property). Early- or pre-industrial town housing, raised in the 18th. or first part of the 19th. centuries, reflecting well-established ribbon development were mainly concentrated at the city centre-end of Leszno (no. 105 from c. 1780 still extant), Nowolipie and Nowolipki streets, as well as the north-south orientated Przyjazd and Dzika street originally lying just beyond early-17th. century defence lines, (street blocks 82-86: 21-33 apartments and 110-190 residents per property).

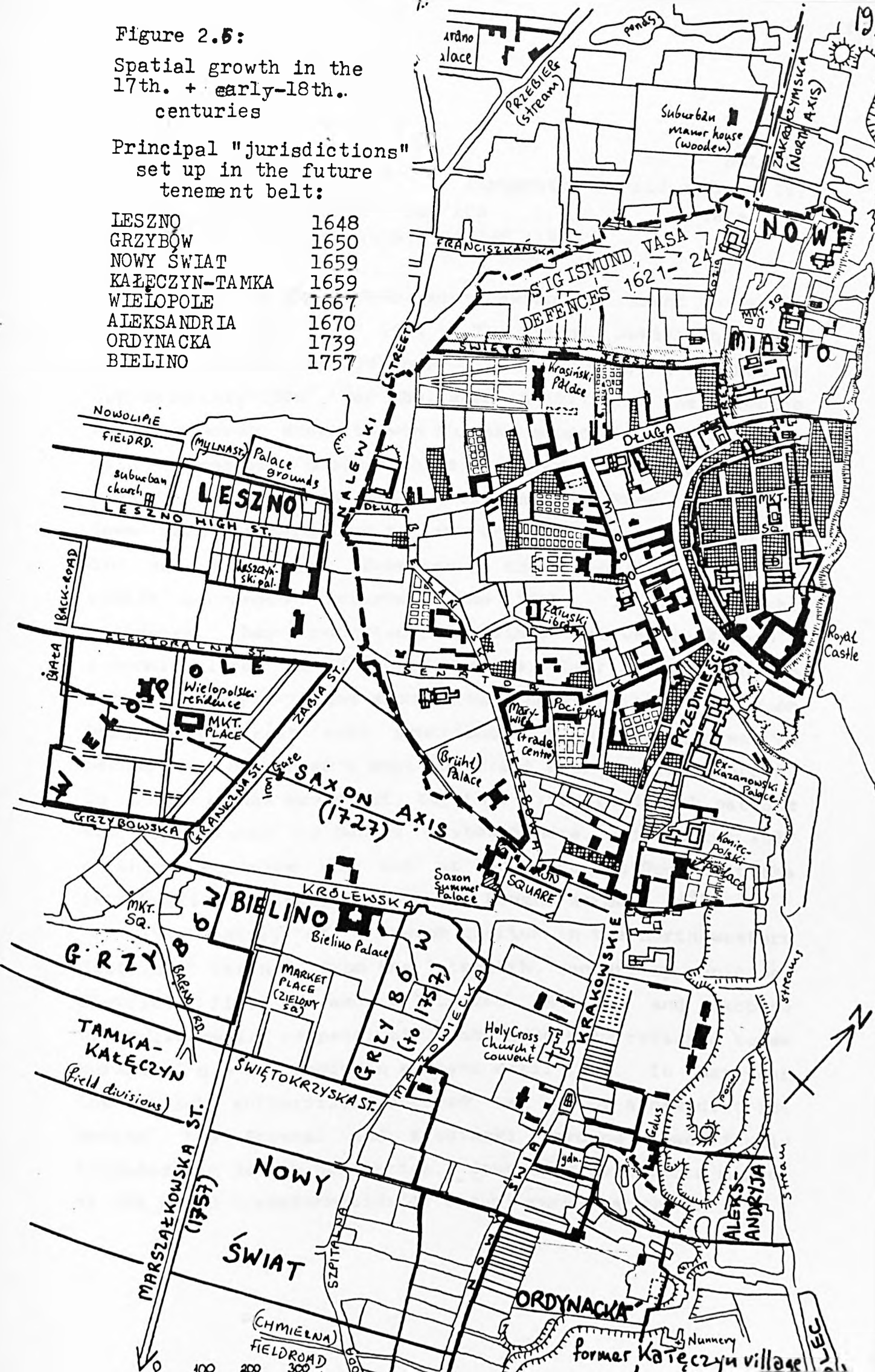
*Arrondissement* III had become a predominantly Jewish district during the late-19th. century (63.1% of the total population in 1910). While Leszno Street retained a cosmopolitan populace of mixed cultural, religious and ethnic background, Mylna, Nowolipie, Nowolipki, Dzika, Karmelicka, Dzielna, Pawia and Smocza streets were almost exclusively Jewish. Several isolated public and religious buildings were situated in Leszno district, including the Pawiak Prison (1830s, extended), a former magnate's palace, adapted in the 1820s to house the "Commission of Internal Affairs", taken over by the Russian army to provide it with more barracks (since its reconstruction in the late-1940s Warsaw Civilian Polish Force HQ) and a red brick RC church (1890-'96), somewhat absurdly raised on Jewish Nowolipki Street and, yet more absurdly, the only building to survive the holocaust in this part of the city.

Figure 2.5:

Spatial growth in the  
17th. + early-18th.  
centuries

Principal "jurisdictions"  
set up in the future  
tenement belt:

LESZNO	1648
GRZYBÓW	1650
NOWY ŚWIAT	1659
KALECZYN-TAMKA	1659
WIEŁOPOLE	1667
ALEKSANDRIA	1670
ORDYNACKA	1739
BIELINO	1757



(tenement district 3)

NALEWKI

(truncated *arrondissement* IV)

Street block nos. 88-98 + 105-106

(Plate VI<sup>a</sup>)

Inhabitants : 51,581 (1919), 54,745 (1913)

The oldest document confirming Jewish settlement in Warsaw comes from the year 1414. The first Jewish quarter, situated within the Old Town walls and occupying an area of approximately 150m<sup>2</sup>, was abolished in 1527 when the reigning Polish monarch, eager to win burgess support in his struggle with increasing noble-magnate influence in the country, granted the *de non tolerandis Judaeis*. From then on the Jews were not permitted to live or hold property within the Old and New Towns. Even though their legal status was to remain unchanged throughout the 16th., 17th. and 18th. centuries, they undoubtedly remained active in Warsaw's economic life. In 1778, for example, their applications to set up a bazaar in and around the former Pocijów Palace on Senatorska Street were sanctioned. The Pocijów was to become one of Warsaw's most important open trading centres. In 1808 it was moved out, together with its Jewish patrons and inhabitants, to behind Grzybów Square, while after 1867 a third Pocijów was set up on Kercel's Square at the intersection of (new) Okopowa and Leszno streets. (178)

The history of a Jewish quarter in the north-western district, defined from the late-19th. century by municipal districts III, IV and V (Leszno, Nalewki and Okopowa *arrondissements* respectively) and generally referred to as Muranów, did not begin in earnest until 1821. In that year the Polish authorities decided to set up a new district behind the Arsenal and Krasiński Gardens specifically intended for Jewish habitation. Contemporary reports marvel at the rapid transformation of a semi-rural backwater into a

lively, populous new district.<sup>(179)</sup> Neo-Classical houses with two upper storeys, reminiscent of those surviving to this day in their original form on Nowy Świat (street), were raised on the Nalewki High Street, Wałowa, Nowiniarska and parts of the older Świętojerska, Franciszkańska and Bonifraterska streets, thus pointing the way to the future developing of Nowolipie, Nowolipki, Dzika (now Zamenhoffa) and Gesia (Anielewicza) streets. The first building phase and urban integration of the Nalewki thus took place in the 1820s and, in spite of the post-insurrectionary slump elsewhere in the city apparently continued into the 1830s. The segregation of most - if certainly not, as was intended by the authorities, all - of the Jewish community of leftbank Warsaw into municipal district IV inevitably lent the Nalewki some specific distinguishing traits.

While building activity in "Christian" Warsaw between the November (1830) and January (1863) insurrections may be identified in isolated areas, such as around the Warsaw-Vienna Railroad terminus (Marszałkowska and Chmielna streets), housing with two upper floors was being put up on and behind Nalewki Street in the late-1840s and throughout the 1850s (demographic growth rate, based exclusively on the number of permanently-registered residents of 25% between 1847 and 1869). The street profiles of Nalewki, Franciszkańska and Wałowa streets were already, like those of Nowy Świat or Elektoralna streets, almost completely built-up prior to the 1860s. Property construction thereafter was focussed on the interior of building plots composing street blocks 91, 92, 93, 94 and 95 in the form of new or extended, multi-storey outbuildings. Although a number of 3-, 4- or 5-storey tenement properties were put up on Nalewki and Franciszkańska streets, interrupting the

previous continuity of single- or 2-upper storey house frontages, a division can be drawn between the predominantly early-19th. century street profile and late-19th. century/early-20th. century multi-storey buildings of the courtyards. While subparcellisation did occur in connection with courtyard development or redevelopment, building plots on Nalewki and Franciszkańska streets remained on the whole more expansive than most in the tenement belt (cf. Chapter 2). These elongated plots - following in the case of Nalewki Street former agrarian land divisions originating from the middle ages - were built up from the 1860s with multi-apartment outbuildings which frequently received additional floors or further extensions throughout the study period. An exceptional 80 non-residential premises and flats housing around 300 people has been calculated for each of the 21 properties grouped in street block 94 (cf. Figs. 3.1 and 3.2 in Chapter 9 illustrating examples of elongated plots in commissariat IV and their ground-plans).

In the mid-1890s two adjoining building plots, (designated in the Land Registry Office numbers 2249A and 2305), backing onto the subsidiary Dzika Street, which ran behind and roughly parallel to Nalewki Street, were subdivided and developed with two lines of 5-storey tenement houses served by a cul-de-sac named Kupiecka (Merchant's) Street. The laying-out of such blind or twisting side-streets to open up street blocks for speculative purposes was also taking place at or around the same time in other parts of the Main City; (e.g. Foksal, Hortensja, Wysoka, Sewerynów and Okólnik ("Circular") streets in Nowy Świat quarter, Count Kotzebue, Kapucyńska, Hipoteczna, and Wyjazd ("Exit Road") in *arrondissement* XII, Sądowa, Chopin, Natolińska, Służewska, Litewska and Flory

streets in the southern tenement district (cf. Fig. 2.11).

Elsewhere in *arrondissement* IV, beyond the main nucleus of street blocks 91-95, building booms in the 1860s and early-1870s resulted in the developing of Miła, Muranowska, Niska, Stawki and remaining vacant plots on Bonifraterska, Pokórna and Dzika streets with more standard single- or, more unusually, two-courtyard tenement properties composed of between 24 and 35 flats and c. 110-200 inhabitants (with the exception of more densely built-up block no. 89). Even though properties were large and densely inhabited, apartments tended to be divided into 3 rooms and one habitable room accommodated on average 2 persons (including servants), reflecting comparatively comfortable living conditions. A certain degree of tenement infill ensued in the 1890s in isolated plots which had not been developed in the 1870s, replacing the last remnants of wooden or low brick building, as well as more continuous development on Muranów Square (4 or 5 upper storeys) and the newly laid-out Sierakowska Street leading to the wooden Kovel line railway station isolated from the built-up area by its location in the Citadel Esplanade. A section of the military lands closed to private development had been given over to a railway yard and storage depots together with the Broni (Arms) Square bazaar, moved from its original site on Wałowa Street.

A small built-up enclave represented by street blocks 105 and 106, where housing densities and apartment subdivisions are more consistent with those of Okopowa district, have been kept in Nalewki district for the purposes of ascertaining the true population of *arrondissement* IV in 1913. For the same reason, street block 99, incorporating 2 developed properties situated in

the Citadel Esplanade, inhabited in 1919 by 32 people, have been placed in this tenement belt study district (cf. "Nalewki-IV" in annex table VII of Part I).

The very high proportion of uninhabitable premises occupied by warehouses, wholesale stores, retail outlets and workshops, particularly in the properties of street blocks 88 and 91-95, is indicative of the level of commercial specialisation among the inhabitants of this district. An endless variety of garments, linen, hats, gloves, shoes etc. was made by hand in small workshops on Nalewki, Świętojerska, Bonifraterska and Gesia streets, apart from Nowolipie in Leszno and Smocza street in Okopowa district (cf. tenement districts 2 and 4). "Small factories rarely employing more than a dozen people were concentrated in deep courtyards, apartments and basements", but twice as many people were employed in handicrafts even than in light manufacturing industries throughout the north-western districts of Nalewki (IV), Leszno (III) and Okopowa (V).<sup>(180)</sup> The recording in 14 properties grouped in street block 93 of a greater number of uninhabited commercial or handicraft and light-manufacturing premises (338) than inhabited flats (272) does not occur in any other inner city street block, thereby emphasising the specific retailing and small business functional structure of the Nalewki: a secondary, northern extension of Warsaw's CBD controlled by the non-Europeanising Jewish majority who lived there.

### Jewish settlement in 19th. century Warsaw

A census from 1792 reveals 6750 Jews were living in the vicinity of the first Pocijów bazaar on Senatorska Street and Krakowskie Przedmieście which at that time represented the city centre. It was the Prussians in 1797, rather than the Poles in 1791 with their American-inspired constitution, who recognised the right to permanent residence of Warsaw's Jewish community. Only in the wake of the nevertheless infamous *Judenreglement*, which conceived contrived and often belittling surnames in an attempt to register all taxable citizens, did a Jewish cemetery, synagogue and hospital begin to function in the city. Attempts to restrict Warsaw's Jewry to assimilating wholesale merchants, bankers and manufacturers were most successful under the centralising, bureaucratic administrations of the Grand Duchy of Warsaw (1806-'9-'13) and Congress Kingdom (1815-1830 and 1831-'64). Jewish settlement in the city centre was strictly forbidden during the first half of the 19th. century, although between 1808 and 1821 a quarter for Europeanising inhabitants had operated around Królewska and (upper) Marszałkowska streets. (181)

It is very difficult, if not impossible, to establish what proportion of the entire urban populace inhabited the Nalewki district after its setting up as an area of Jewish settlement in 1821, as well as to what extent Warsaw Jewry as a result was segregated from the remaining leftbank community. Contemporaneous registers generally recorded taxable male citizens and their occupations, paying little attention to wives, children, retired people or temporarily registered residents. (182) An estimation made in 1847 recognising municipal district as statistical units and

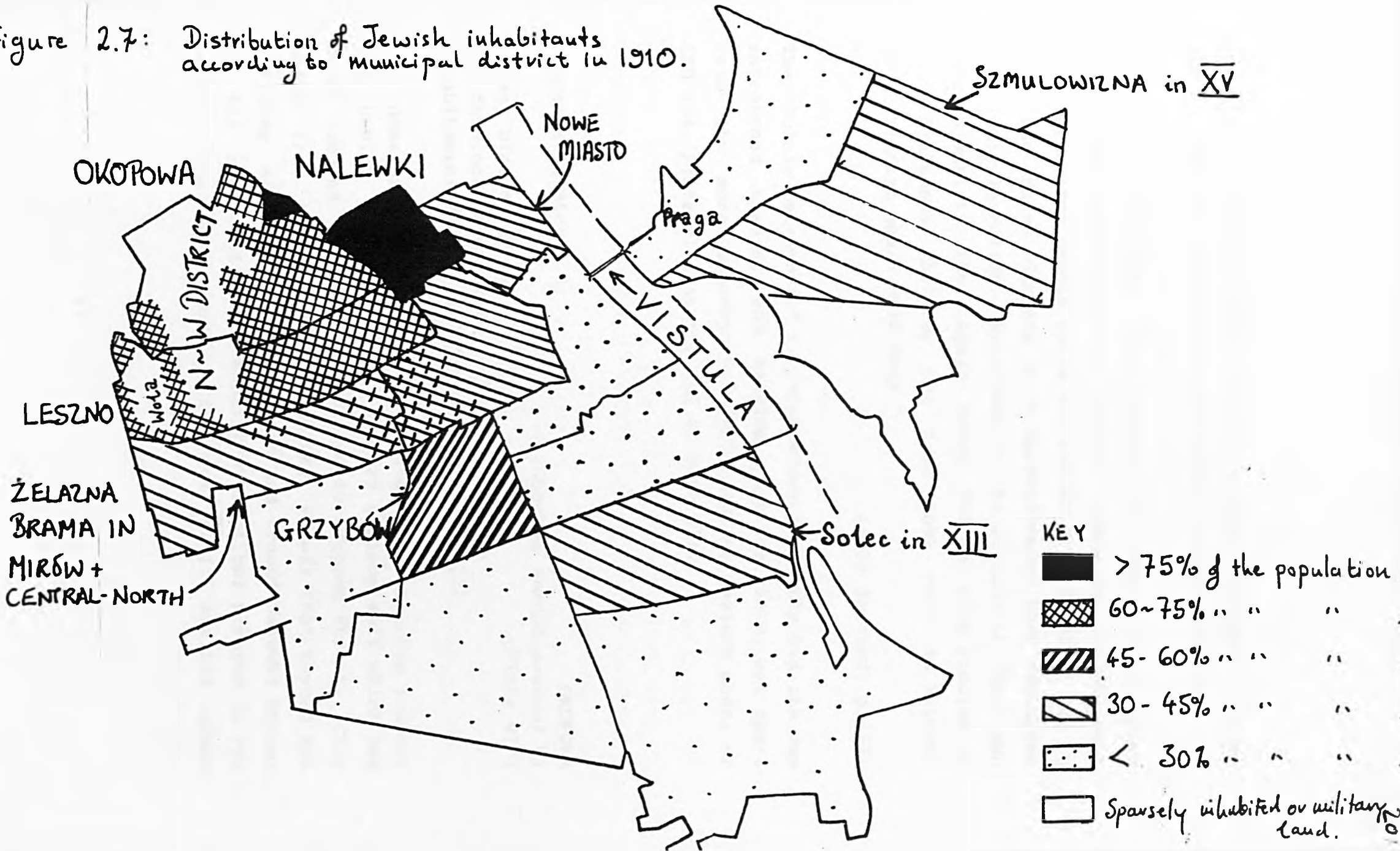


based on permanently registered residents by the publicist F. Sobieszczanski suggested 17,715 people lived in the Nalewki; i.e. 10.6% of the entire population of Warsaw. Official statistics from 1868 reveal 28,674 people were living in the Nalewki, including some 5474 temporarily registered inhabitants (11.4% of the entire population). In 1864 it had come to light that some 72,800 Jews already lived in the city, including a significant community in Praga; i.e. 32.7% of the urban population. In 1910, even while the number of people living in *cyrkuł* municipal district IV had risen to 55,997, this figure represented only 7.2% of the overall population of Warsaw City (i.e. *arrondissements* I-XV). In the meantime, the Jewish community, partly under the impact of Russian Jewish immigration, had risen by 1910 to 306,071 (39.2% of the inner urban populace), excluding those Jews who had chosen to be baptised into the Christian faith.

It would seem likely that even before restrictions on Jewish settlement and property ownership in Warsaw had been removed by the Alexandrine social reforms of 1861 (introduced into Congress Poland in 1862 and 1864), Jewish citizens had already taken up residence, or might even have remained throughout the period of segregated habitation, in other leftbank districts (cf. tenement belt districts of Mirów, Grzybów and Okopowa; also refer to Fig. 2.7). Nevertheless,, the Nalewki retained an overwhelmingly Jewish majority during the 1864-1914 period, and indeed until the Nazi occupation; in 1913 92% of the district's inhabitants were unacculturated followers of the Judaic faith. (183)

B. Singer summarises the extent to which Jewish Warsaw infiltrated the "goya" city centre in the following account of how Nalewki residents during a Saturday afternoon walk

Figure 2.7: Distribution of Jewish inhabitants according to municipal district in 1910.



conversed with each other in the two main languages, mixing the two as they passed from one ethnic area to another:

"On Muranowska, Miła and Nalewki" (streets) "couples spoke exclusively in Yiddish. On Bielańska these same strolling people would mix Polish with Yiddish, but in the Saxon Gardens or on Marszałkowska they conversed only in Polish. Returning in the evening to their own district, they again mixed Polish with Yiddish on Bielańska, but by the time they were on Nalewki Yiddish again held sway."

(*Moje Nalewki*, p.127)

The "Judaic metropolis" (*moyshopolis*) evidently had its own entrenched trading and banking core districts, set apart from the more conventional Christian, or western model of CBD (cf. Plate VIII at the end of Part II).

(tenement district 4)

OKOPOWA

(truncated *arrondissement* V)

Street blocks 107-122

(Plate VI<sup>a</sup>)

335 developed properties

Inhabitants: 54,175 (1919), est. 65,912 (1913)

The name of this district was derived from trenches (*okopy*) dug behind the late-18th. century customs wall which had been removed in 1870 and replaced by Okopowa Street. City plans from the mid-19th. century reveal that beyond the building activity taking place on and around Nalewki Street in the east and Leszno-Nowolipie-Nowolipki streets to the south, the north-western district still awaited urban

integration. Fields and orchards at this time, as well as a network of sizeable ponds, stretched to the west of Dzika Street, dominated by the rather isolated late-18th. century Wołyński Barracks with their subsidiary buildings and the early-19th. century Pawiak Gaol. Two small tanneries had been set up near the customs wall which were to be greatly enlarged after the 1870s. (184)

Inspection of property registers compiled for the years 1863, 1865, 1866 and 1869 suggest the dispersed, linear streets of Okopowa district were unaffected by an early tenement building boom in the 1860s. Integrated development was initiated in the early-1870s with the laying-out of a gridiron road network consisting of Nowokarmelicka, Wołyńska, Ostrowska and extensions of Miła, Niska, Smocza and the newly-regulated Stawki ("Ponds") streets. Some consistent tenement construction was begun on the southern side of Pawia and northern side of Gesia streets (street blocks 120, 121, 122), as well as the western ends of Wołyńska, Miła, Niska and Stawki streets with the northern extensions of Dzika Street, (in the cases of Niska and Stawki reaching in the 1890s as far as Okopowa Street; street blocks 109-113, 115, 116 and the private plots of 117 and 118). A metallurgical plant employing by 1913/'14 around 600 workers was opened in 1874, on the suitably-named Gliniana "Clay") Street, followed in 1892 by a small chemical factory on Okopowa Street. (185) This zone of industrial location, following the city-side of the ex-customs wall, represented by street blocks 114, 119 and part of 108, was less intensively built up with housing, although in the case of 109 1- or 2-room apartments in 10 properties have been calculated to have accommodated 3 or 4 people per room, revealing crowded, and in all probability

factory workers' housing.

Development of remaining peripheral areas ensued in the 1890s; e.g. the laying-out of Parysowski Square and demarcating of building plots with land registry numbers 5399-5417. It is significant that only one of these plots had been fully developed by 1914, most being partially built up while a number remained vacant. Tenement property construction did not fully evolve in Okopowa district (cf. diagram 2b in Fig. 3.2). The street profiles of Wołyńska, Smocza, Miła, Niska and Stawki were characterised by numerous wooden houses, hiding wooden outbuildings of 2 and in places even 3 upper storeys. Wooden housing was especially prominent in street blocks 110, 112, 115, 116 and 120. Contrasts in the building characteristics between these groups of properties reflects the lack of continuous property development in this part of the tenement belt. This inconsistency may be explained by reduced speculative motivation and the apparent failure to adequately drain large parts of the area when the new street network behind Dzika and north of Gęsia streets was laid out in the 1870s (basement flats were less common here and absent altogether in blocks 108, 113 and 121). Even though Okopowa district was not consistently, and in places even compactly, built-up, the region was heavily populated, a fact indicated by the prevalence of 3 or more persons to one habitable room. The evident working class social structure of this quarter also helps to explain the absence in many street blocks of multi-storey, brick tenement housing, even though "barracks" quality housing densities are strongly pronounced.

In 1893 26.2% of Warsaw's 18,968 industrial workers were registered as being employed in the factories and small

manufacturing businesses of Okopowa and Leszno municipal districts. By 1913/'14 the city's industrial proletariat had risen to 79,464, but the proportion of workers employed in Okopowa and Leszno had fallen to under 19%. In the meantime, the population of these north-western districts had increased from 68,603 in 1891 to an estimated 139,259 residents in 1913 (cf. Leszno tenement district 2). It was during this period that most of the 150,000 Russian Jewish immigrants had arrived in the city. While many of these people took up residence in Nalewki and Leszno districts, as well as in the vicinities of Iron Gate and Grzybów squares (cf. inner core E and tenement district 7), the backstreets behind Nalewki in the north-western periphery of the then built-up area clearly attracted extensive "Litvak", apart from "Polish" Jewish, settlement before the First World War. By 1910 69.9% of the Okopowa's populace was Judaic in faith. (186)

It is difficult to establish the extent to which this industrial and Jewish proletarian district was still in the early stages of taking shape, and if the wooden housing evident on interwar city plans represented improvised building that was being gradually replaced by brick construction. The urban form of Okopowa is reminiscent of the inner city quarters of the East Bank; a mixture of crowded tenements and several-storey wooden housing. Moreover, this was a poorly documented and little photographed quarter of the Main City; an inner urban outback doomed to almost total demolition in 1943. Nor is it clear to what degree the mainly Polish factory workers might have lived among the generally more impoverished Jewish majority, or rented cheap accommodation on the Wola side of Okopowa Street. The piecemeal pattern of isolated,



roughly 27 hectares bounded by Elektoralna, Ciepła, Grzybowska and Zabia-Graniczna ("Border") streets. The market square, set up on an important highway leading from the Old Town via Senatorska, Zabia, Graniczna, and Twarda streets to the regional centre of Grójec, was destined to become Iron Gate Square. 17th. and 18th. century Poland's successively elected Polish kings were in no position to dictate the shape their royal capital took, but their own activities were also highly significant. Before his death in 1732 the Saxon monarch, August II (the Strong) ordered the tracing of three representative axes emanating from the town towards the north (Zakroczymska-Fawory streets), south (Ujazdów Avenue), and, most decisive for the city's future spatial expansion, in the west; the so-called Saxon Axis : "Oś Saska". Having been temporarily deposed during the Second Northern War (1700-'10), August II was anxious to ensure rapid and safe access to his Polish royal seat, and a feature of each of these radiating routes was the location of barracks to house his troops. The Saxon Axis cuts a 2 kilometre line from the king's new residence with its expansive courtyard (later Saxon Square) through the Saxon Gardens and Iron Gate Square, dissecting Wielopole township, to converge with the principal western highroad following Chłodna and Wolska streets. The barracks and Mirów Square (taking their name from a mid-18th. century colonel, Mier) were created behind the houses and magnatial palaces situated on Iron Gate Square and its side-streets, (cf. inner core area E). The three axes defined the city's spatial expansion in the north (cut by the Russian Citadel after 1831), south and especially in the west, simultaneously stimulating trade and investment among the depressed merchants and artisans. Already by the 1790s



ribbon development along the east-west running streets had reached the post-1770 customs wall where it crossed Chłodna Street, reaching further west into Wola Suburb. (187)

Growing up on the western fringes of the built-up area, Mirów and its immediate environs became a district of early-industrial and manufacturing production which, according to a property tax register from 1784, was second in importance only to the riverside quarter of Powiśle (e.g. 36 breweries, 4 mills, 5 brickworks and 3 warehouses). The names of several streets laid out or regulated at this time emphasise the commercial as well as industrial activities associated with this part of the city; e.g. Krochmalna ("Starch"), Solna ("Salt"), Ceglana ("Brick") and Żelazna ("Iron") streets. The manufacture of ironware and products from other metals can be traced back to the beginning of the 19th. century when small foundries were set up behind pre-existing houses on Chłodna and Elektoralna streets. Poor water supply discouraged the location of tanneries (cf. tenement district 4). Carriages were manufactured in workshops on Elektoralna, Orła (inner core E) and Leszno (tenement district 2) streets. Although the textile industry failed to evolve on any significant scale in Warsaw, (the finished products being brought by train from Łódź and the new town of Żyrardów), metal foundries and forges grew in size during the 19th. century (cf. tenement district 8). A characteristic of Mirów district was the generally small size of industrial production sites, located among or in the same building plots as residential building. Larger breweries operated on Grzybowska, Krochmalna and Chłodna streets, tobacco and sweet factories on Krochmalna Street and a furniture manufacturers and warehouse on Chłodna Street. Heavier industrial location in the western

districts did not appear until the 1870s and was initially focussed between Żelazna Street and the former customs wall before yet larger plants began to establish themselves in Wola and Czyste suburbs. Large, freestanding factory complexes were almost entirely absent from Mirów where extensive land parcellisation ensued by property development had already been underway since the 1770s (refer instead to tenement districts 4 and 8). (188)

Trading and other commercial activities were mainly concentrated at the eastern end around Iron Gate and Mirów squares where most of the districts' Jewish populace, traditionally associated with Krochmalna and Grzybowska streets, lived and worked (35.6% of *arrondissement* VII's population in 1910). Street blocks 163-166, lying immediately behind Iron Gate Square, and coming under the jurisdiction of northern-central *arrondissement* XII between 1908 and 1916, has been identified as an assimilation area of the CBD (refer back to: "Żelazna Brama Square and Quarter" in CBD-E sub-study area, Chapter 5). The municipally-financed Mirów Market Halls, opened in 1902, had replaced 4 of the original 6 pavillions composing the Mirów Barracks. Street block 163 in particular was very compactly built up (c. 48 habitable apartments 260 residents and about 6 uninhabited commercial premises per property). Housing densities, averaging out at almost 3 inhabitants to a room in street blocks 163 and 164, were unusually high for such a central location, suggesting occupants were not wealthy. Furthermore, numerous Russian-Jewish immigrants settling on Krochmalna Street from the late-1880s had left the city during the First World War (cf. cartogram IV<sup>c</sup>). A Jewish commercial quarter in the centre of Warsaw, beyond the Nalewki, may be partially defined by street blocks

163-166 in Mirów and 299-306 in *arrondissement* XII, spreading into neighbouring street blocks grouped around Grzybów Square (cf. inner core area E and tenement district 7). A second bazaar and trading area had arisen on the site of the customs wall on Kercel's Square.

Between Mirów and Kercel's Squares "barracks" housing prevailed (24-60 2- or 3- room flats per property), consisting of tenements raised in the later half of the 19th. century (3 or 4 upper storeys) or the early-1900s (5, 6 or 7 upper storeys). Numerous groundfloor or 1- and 2-floor street-facing houses from the late-1700s or early-1800s had remained above all on Elektoralna, Chłodna, Krochmalna and Grzybowska streets, added onto from the back by newer multi-storey tenement outbuildings. Continuous tenement and early-19th. century building extended beyond the former customs wall (cf. Wola inner-urban peripheral district).

(tenement district 7)

GRZYBÓW

(truncated *arrondissement* VIII)

Street blocks 179-200

(Plate VI<sup>c</sup>)

428 developed properties

Inhabitants : 65,587 (1919), 70,124 (1913)

Grzybów township arose in the 17th. century on wide, open lands stretching to the southwest of mediaeval Warsaw and its *faubourgs*, belonging to the city squire whose farm originally stood on Mazowiecka Street. The jurisdiction, granted independent status by king John-Casimir in 1650, briefly occupied an extensive area defined by the so-called Sigismund town defences (1621-'24) and the lines of Mazowiecka, Świętokrzyska-Prosta, Karolkowa (in Wola Suburb)

and Chłodna-Elektoralna streets. Houses occupied by tenant farmers, craftsmen and traders grew up around a market place; the future Grzybowski Square, at the crossing of a number of important land routes : the Warsaw-Grójec highway, a by-way leading to the future Three Crosses Square (Bagno-Zgoda-Bracka streets) and a newly laid-out service road following the Sigismund defences and continuing westwards (Królewska-Grzybowska streets). The establishing of subsequent private townships led to a diminishing of Grzybów's territorial area in 1667 (Wielopole) and 1857 (Bielino; cf. figure 2.5). Wielopole played an important role in the evolution of Mirów quarter, just as the New World (*nowoświeckie*) jurisdictions, originating from the 1650s on the site of Kałęczyn village and farmlands, were crucial to the early development of the Nowy Świat quarter (cf. tenement districts T-5/T-6 and inner core area CBD-F). However, the rational and large-scale planning of Bielino township, conducted by Grand Marshal to the Crown, Franciszek Bieliński, was very much in the spirit of Baroque monumentalism. The laying-out of a three-kilometre route named after Bieliński (Marszałkowska), 19th. century Warsaw's main street, surpassed the Saxon Axis in scale, if not in grandeur. (189)

The north-south course of Marszałkowska Street, intersected at right angles by former fieldroads regulated under the guidance of German geometrician, Mateus Deutsch, after 1762, (Pańska, Śliska, Sienna, Złota, Chmielna and Widok streets), largely defined the future urban layout of Grzybów municipal district (cf. Fig. 2.8). Although some manor houses, inns and wooden service buildings had already been put up on Marszałkowska by the 1790s, followed after 1818 by neo-Classical single upper- or 2-floor houses raised

on Grzybowski Square, Królewska, Bagno, Grzybowska and (upper) Twarda streets, urban integration of the larger part of *arrondissement* VIII did not really commence until the 1840s and 1850s with the opening of the Warsaw-Vienna Railroad.

Jewish settlement in Grzybów can be traced back to the private township's foundation when corn and horticultural produce were traded on the market square. Between 1808 and 1821 this region was planned by the French and Polish authorities as a Jewish district. It would seem more likely than not that many non-Christians remained here even after the Nalewki had been set up to segregate Jewish and Christian citizens. In 1910 46% of the population was registered as being of the Judaic faith, many of whom would have lived in the immediate vicinity of Grzybowski Square and the former Pocijów Bazaar operating behind Bagno Street (street block nos. 179, 180 and 183-189 recording in 1919 around half the total population). A hospital for the children of Orthodox Jews was set up on Sienna Street in 1878.

Building pre-dating the 1850s was concentrated in street blocks 179, 180 and 183, although intensive infill of the backs of building plots had taken place from the early-1870s, especially in no. 179 which displays building characteristics, housing densities and a high degree of commercial specialisation (350 uninhabited retail, office or workshop premises), already observed in street blocks 91-95 (Nalewki), 163, 299 and 306 (Za Żelazną Bramą/Mirów). Street blocks 181, 182, 190-193 and 198-199, following the line of Marszałkowska and its parallel back streets, Zielna and Wielka, were intensively built up from the 1850s when some of the first multi-apartment, 3-floor tenement houses

in Warsaw made their appearance. Older, mainly late-18th. century manor houses and inns were either replaced by infill tenements, which from the late-1890s reached 6 or more upper storeys, or such pre-industrial buildings escaped demolition to further emphasise the increasingly chaotic street profile of the city's principal thoroughfare (cf. "Marszałkowska Street" in Chapter 11). Department stores, shops and offices took up between one quarter and a half of the apartment space of properties grouped in these street blocks, while housing conditions in upper-storey habitable flats were evidently among the best the city could offer (4 or 5 rooms and around 1 person per habitable room, including domestic servants also accommodated in these properties).

In Part I Grzybów was selected as a leftbank inner city municipal district revealing consistently "barracks quality" building densities and residential patterns (cf. Figs. 1.3 and 1.4 in Chapters 1 and 2). This district, occupying an area almost entirely built-up with closed-courtyard tenement housing, was typified by a model developed property type composed of 30 3-room apartments, (excluding commercial or other uninhabitable premises), accommodating in 1913/1919 more than 150 residents. The population density at this time, based on the overall administrative area, exceeded 700 people per hectare. Taking advantage of the generally regular street plan, measurements have been based on the 1:2500 city plan from 1925 (in the absence of officially recorded date at such a scale) to calculate approximate population densities according to the built up area; i.e. excluding Grzybowski Square, streets and the marshalling yards behind the

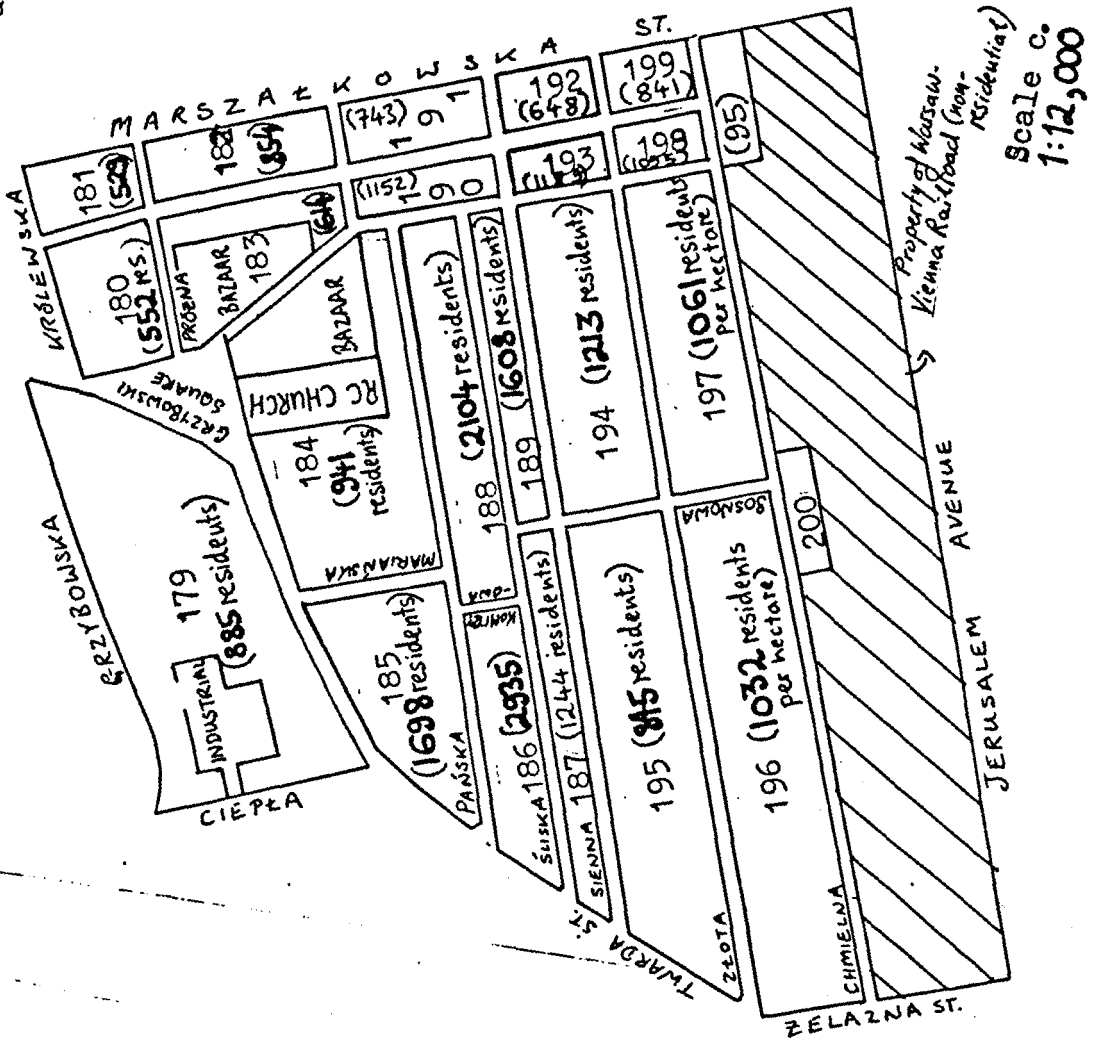
Warsaw-Vienna Station (street block 200). Densities in an area exceeding 10 hectares made up of street blocks 185-189 have been estimated to have ranged from 1300 to 3000 people per hectare. Densities marginally greater than 1000 people per hectare have come to light in street blocks 184, 190, 193, 194 and 196-'8. In remaining Grzybów street block-urban landscape units densities ranged from around 550 per hectare in the vicinity of Marszałkowska Street, where commercial premises were very prominent, to around 900 in nos. 179, 182 and 195. In street block no. 200, where housing was limited to two small enclaves by extensive railway sidings, yards and machine works of the Warsaw-Vienna Railroad, the density calculation fell dramatically to under 100 residents per hectare. Excluding the territorial area and population of block no. 200, the built-up area of Grzybów recorded - even in 1919 - a density of more than 1100 inhabitants per hectare (cf. Fig. 2.8).

GRZYBÓW	Street block no.200		mean number of inhabitants per hectare
population	65,587	- 1085	= 64,502
area (hectares)	77	- 19	= 58

On the basis of these calculations it has been concluded that by the outbreak of World War I more than 100,000 people were accommodated within one square kilometre of the tenement belt.

This exceptionally high population density calculation in comparison even with the tenement barracks cities of Vienna and Berlin (but unexceptional in the case of New World cities like New York or Chicago where skyscraper apartment blocks were already being raised in the late-19th.

Figure 2.8: Population densities in Grzybów Commissariat /1919/  
 /residents per hectare calculated according to street block/



C A L C U L A T I O N S

Street block	approximate dimensions	Area in H	Population in 1919
179	470m x 200m =	9.4H	8314
180	160m x 110m =	1.8H	994
181	82m x 120m =	c1.0H	529
182	73m x 210m =	c1.5H	1282
183	115m x 170m =	c2.0H	1227
184	360m x 185m =	6.65H	6257
185	230m x 125m =	2.9H	4922
186	315m x 65m =	1.9H	5577
187	450m x 37m =	1.65H	2052
188	430m x 65m =	2.8H	5891
189	360m x 35m =	1.25H	2010
190	45m x 165m =	0.75H	864
191	70m x 165m =	1.15H	855
192	70m x 110m =	0.75H	486
193	50m x 110m =	4.0H	654
194	360m x 110m =	5.8H	4853
195	525m x 110m =	6.7H	4884
196	605m x 112m =	3.8H	6917
197	360m x 105m =	0.55H	4023
198	55m x 110m =	0.7H	602
199	70m x 100m =	0.7H	589
200	1150m x 165m =	19.0H	1085

GRZYBÓW/1919/  
/1913/  
99.0H  
99.0H  
65587  
70124



century) should not be immediately associated with poor and overcrowded housing conditions. Street block 186, covering an area of 1.9 hectares and inhabited in 1919 by 5577 residents, incorporated 25 properties containing an average of 41 2- or 3-room apartments and recording 2, or at most 3, people per room (allowing for the fact kitchens - for obvious reasons - were not counted in the census as habitable rooms, even though domestic servants might be having to live in them). Street block 197, covering an area of 3.8 hectares and containing in 1919 4023 people, consisted of 30 properties made up of around 34 predominantly 3-room apartments and recording 1, or less frequently 2, residents to a room, revealing considerably improved housing conditions prevailed in this part of Grzybów district (Chmielna-Złota streets) compared with properties grouped in street block 186, (Śliska-Pańska streets). In spite of extensive destruction between 1939 and 1944, followed by colossal post-war development in this area (e.g. the Palace of Culture and Science), 3 tenements have survived on Śliska Street, (numbers 52, 54 and 56). The tenement building form and housing densities on Chmielna and Złota streets, resembling those of properties still standing in former Koszyki (*arrondissement* XI) and Aleksandryjska (XIII) southern districts, should permit empirical research of these tenement property types in Part III (cf. Chapter 11 where 19th. century urban topography cells taking the form of tenement house case studies have been selected from within the modern urban landscape). It is both characteristic and significant that housing conditions could so alter within the space of several hundred metres within the tenement belt.

Living standards and housing conditions evidently

deteriorated in predominantly Jewish proletarian and/or Polish working class quarters, represented by Okopowa and part of New Town, Leszno, Mirów and Towarowa districts, where 3 or 4 residents to one habitable room have been recorded (cf. tenement districts, 2, 3 5/6 and 8). In quarters where tenement building was compact and relatively consistent, population densities might be expected to have substantially risen above 1000 residents per hectare of the built-up area. In the city centre, where housing densities would be expected to have been reduced by large flats and a high proportion of uninhabitable, retail or office space in properties, it is likely densities fell below 1000 residents per hectare of the built-up area (thus emphasising the unfolding in Warsaw before 1914 of a central business district). The combined territorial area of inner core quarters A-F and tenement districts 1-10, including streets, squares and small public parks (i.e. the Saxon, Krasiński and Pomological Gardens), is estimated to be about 850 hectares, (8.5km.<sup>2</sup>). The population of this area in 1919 was 575,567, (estimated for the year 1913 at 647,821).

A small number of still-existing single- or 2-apartment tenements, presumably designed for poorer urban dwellers, have been identified at the western, Żelazna end of *arrondissement* VIII, in which flat sizes and residential densities of which are indicative of working class housing standards rather than those prevailing on or near Marszałkowska Street and around Grzybowski Square. Industrial location in Grzybów was to a large extent discouraged by the rapid westward advance from the mid-19th. century of residential properties. However, warehouses, printing firms and light industrial plants did grow up along and behind the western extension of Chmielna Street near the

Warsaw-Vienna Railroad Machine Works. In addition, a medium-sized iron foundry and machine works, opened on Złota Street in 1872, was employing by 1914 500 workers (located in street block 197 where a collection of empty building plots still remained and correspondingly the number of residents per hectare fell below the average population density calculated for Grzybów). Housing densities generally rose with greater proximity to Żelazna Street and the Towarowa working class district.

(tenement district 8)

TOWAROWA

(truncated *arrondissement* VI)

Street blocks 128-149

(Plate VI<sup>c</sup>)

325 developed properties

Inhabitants : 52,433 (1919), est. 58,290 (1913)

In view of its functional history and comparatively minor post-1945 redevelopment, *arrondissement* VI lying within the tenement belt (i.e. to the east of Towarowa Street) would seem to provide the most suitable field area for investigating working class housing in the leftbank inner city.

Previously coming under the jurisdiction of *arrondissement* VIII, the Towarowa was far removed from the pre-industrial built-up area. Apart from some construction on the eastern, city side of Żelazna Street, ribbon growth on Grzybowska, Pańska and along Twarda streets, the horticultural allotments, private gardens and arable lands did not begin to disappear until the mid-1860s. A series of breweries was located at this time on or behind Żelazna Street, employing between 100 and 150 workers: Herman's

(1867), Reych's (1869) and Kijok's (1870). A metal foundry already set up on Zelazna ("Iron") Street in 1809 by W. Norblin was expanded by Messrs. Buch and Werner into a large industrial plant, (600 workers in 1914). This quarter's industrial character was underlined from the mid-1870s by the setting up near the Warsaw-Vienna Railroad of Srebrna Street of Borman-Szwede's and Hantke's machine and metal works, which by 1914 were each employing over 1000 workers. Freight traffic after 1875 was handled at the new Goods Depot raised behind the levelled customs wall next to the Warsaw-Vienna Railroad passenger line. The wide service road replacing the customs wall received its name, together with the district, from this goods depot: Towarowa ("Depot") Street. Numerous smaller industrial plants and manufacturing enterprises were set up, especially between Zelazna and Towarowa streets, while heavier industrial location took shape beyond the Goods Depot in the fields of Czyste parish, partially encompassed by municipal incorporations in 1889 and 1900 (cf. Wola inner-peripheral district).

Housing development followed the western extensions of Grzybowska, Prosta, Pańska, Sienna and Chmielna, as well as local former by-roads; Łucka, Ceglana and Srebrna, which were crossed at right angles by Zelazna (High) and Wronia streets. "The Commission for the Drafting of a Regulation Plan for the City of Warsaw" had been founded in 1856 by the Home Rule authorities. Hampered by insufficient financing the so-called Regulation Committee (*Komitet regulacyjny*) sought to systemise the pre-existing street network rather than plan new districts, boulevards, etc. in the style of Haussmann's Paris or Hobrecht's Berlin. It was most active in the city centre, but one of its final projects prior to

being disbanded by the tsarist authorities was the laying-out of Witkowski Square and rationally-planned side-streets (Nowa Wronia, Miedziana, prolongation of Sienna) in the Towarowa quarter (cf. Fig. 2.10). Building plot parcellisation endured into the 1870s and property construction was largely completed by the century's close. A market hall belonging to the City Council was put up on the Square in 1907. (190)

Street blocks 132 and 133, created by the Witkowski Square project, were predominantly residential, suggesting from the lower housing densities (1 or 2 residents per habitable rooms in 2-room apartments) that living conditions were somewhat better than in most tenements in this working class district. 2- or even 3-room flats prevailed in street blocks 136 and 137, but properties here were larger (48-55 apartments) and the mean number of residents to a room generally higher; i.e. 2 or 3 persons. An apparent social division had arisen between the eastern and western sides of Zelazna Street: while in even-numbered properties (east side) forming part of street blocks 131, 138, 139, 144 and 147 the number of residents to a room tended not be exceed 2, in blocks, 137, 140, 143 and 148, 2-room and singleroom flats, accommodating 2, 3 or even more people to a room, seem to have predominated. Although it should prove possible to identify surviving tenement houses, especially behind Zelazna Street, subdivided mainly into singleroom flats, a more common building form apparently existed incorporating both small lodgings, often entered via a second, back courtyard, and larger, 2- or 3-chamber apartments rented by higher income tenants. The ease with which tenement apartments could be subdivided by partitioning walls and tenants often rented rooms or even

shared their own living space with subtenants needs also to be taken into consideration (cf. "Apartment subpartitioning" in Chapter 10). A group of 12 properties in street block 137 which partially survived wartime destruction and postwar planning would seem to provide case study material. An industrialist's villa raised behind a front garden on Srebrna Street in the early-1880s, later inhabited by the Norblin family, followed by the Bormans, has also survived; proof that, as in Łódź, factory owners were quite willing to live in the immediate vicinity of their production plants and their workers.

In street blocks 128, 134, 143 and 147-'9, data relating to building characteristics may be distorted by the large factory complexes located there; for example, the Borman-Szwede machine works occupied street block 134 in its entirety. Accommodation for industrial workers and their families was often provided on factory premises; in Borman and Szwede's on-factory housing would seem to have consisted of 54 2- and 3-room apartments inhabited by a total, in 1919, of 236 residents. However, on later inspection the Census Commission had decided the information collected for street block 134 was unreliable. In street block 147, occupied by Herman's brewery, housing conditions in 1919 also seemed to be of an unrealistically high standard for the industrial proletariat; i.e. 3 rooms to an apartment and only 106 people to 23 habitable apartments. The factories and manufacturing enterprises of Towarowa had undoubtedly experienced hard times in 1914-'18, having had to lay off large parts of their workforce. The district's population, confined to street blocks 128-149, has been estimated to have fallen by more than 6000 between 1913 and 1919; a probably conservative calculation, bearing in mind wartime

demographic decline has had to be calculated by combining Towarowa and Koszyki *arrondissements* (cf. Table 5 in Chapter 3).

(tenement district 9)	(POMOLOGICAL)-KOSZYKI
	(truncated <i>arrondissement</i> XI)
Street blocks 258-280, 289 and 292	(Plates VI <sup>d</sup> and VI <sup>a</sup> )
409 developed properties	
Inhabitants : 45,992 (1919), est. 51,051 (1913)	

Apart from spreading westwards from Mirów and Towarowa districts into Wola Suburb, the western industrial zone also extended south of Jerusalem Avenue into southern *arrondissement* XI. Before the administrative changes succeeding the end of Russian rule, street blocks 289 ~~290~~ and 290, as well as 285-288 and a partially developed area in post-1916 suburban *arrondissement* XXIII had come under the jurisdiction of Towarowa municipal district (cf. "Tenement enclave" of inner-peripheral green belt and "Ochota outer tenement district"). These administrative alterations between *arrondissements* VI, XI and XXIII have complicated the correlating of demographic statistics from before World War I with the results of the 1919 property census. In Chapter 3 it proved necessary to combine the population figures for Towarowa and Koszyki districts in order to estimate wartime demographic decline, even though housing densities and the urban pattern of these two regions were not closely matched. Street block 289, recording the smallest number of apartments and by far the densest concentration of residents in properties (i.e. 2 or 3 people to a room), was more typical of the factory street blocks in

Towarowa district. The Rohn and Zieliński iron foundry, employing a workforce of 500 in 1914, had been set up in 1895 on the south side of Jerusalem Avenue (no. 115; land registry no. 1582E/XXXI)

Apartment subdivisions and property sizes in inner-periphery street blocks 285-288 suggest this tenement enclave lying beyond the former customs wall accommodated a working populace employed in the Towarowa quarter factories. A further connection between the post-1916 *arrondissement* VI and the western end of neighbouring *arrondissement* XI is the corn market on Starynkiewicz Square (street block 291), which had been moved from Witkiewicz Square after 1907 and attracted daily up to 800 wagons before 1914.<sup>(191)</sup> Another group of properties at odds with the continuous tenement construction of Koszyki district is represented by street block 192 where isolated housing blocks stood among wooden service buildings and light industrial complexes, including the Dziewiecki and Jeziorański Central Heating Installations Factory, founded in 1893 and employing some 200 workers in 1914 (no.85; land registry no. 1582E/XV).

Koszyki's industrial background can be linked with the first phase of its urban development. The south-western district was among the last parts of Warsaw lying within the late-18th. century customs wall to take shape; the updated Engineer Officer Corps' city plan of 1867 indicated agrarian lands and vegetable gardens occupied the area south of Jerusalem Avenue and west of Marszałkowska Street. In 1861, however, the Europeanised Jewish plutocrat Leopold Kronenberg opened his "Union" tobacco factory, with a workforce of 700, on the corner of Marszałkowska and Hoża streets (land registry no. 1447). Until his million rouble palace on Evangelists' Square was completed in 1871 (cf.



inner core area A), Kronenberg resided in an 18th. century groundfloor mansion facing his impressive factory complex on the other side of Marszałkowska Street. Kronenberg's earlier residence, together with the "Koszyki" manor house, lending the district its name, and a villa raised on the south side of Jerusalem Avenue designed by and belonging to the Italian-born Henrico Marconi, architect of the Warsaw-Vienna Station and other mid-19th. century public buildings, reflect the southern quarter's original appeal among the city's wealthiest inhabitants (cf. especially tenement district 10). The first houses to follow these initially suburban residences were designed for employees of the Tobacco Factory as well as a number of considerably smaller firms opening on Jerusalem Avenue. Some of these "workers'" houses have survived to the present day on Poznańska (until 1916 Wielka) and at the southern end of Emilia Plater (formerly Leopoldyna) streets (cf. tenement case studies in Chapter 11).

Although a moribund institution from 1870, the Registration Committee had previously drawn up a rational street plan for the fields of Koszyki, and even an envisaged green belt along the former custom wall (Koszykowa-Nowowiejska streets), where the Water Filtration Plant was established after 1883, the Christ Child Hospital was relocated in 1900 and where the tsarist army reserved for itself yet more military terrain (cf. inner peripheral green belt in *arrondissement* XI). A grid network of new roads was laid out in the 1870s consisting of western extensions of Nowogrodzka, Zurawia, Wspólna, Hoża and Wilcza streets, intersected by the north-south running Teodora, Leopoldyna and Składowa streets, a southern prolongation of Żelazna Street, creating Starynkiewicz Square, and a delayed

northern extension of Wielka Street as far as Jerusalem Avenue. The Pomological Gardens were opened behind Leopoldyna Street in 1870, lending their name to this part of Koszyki district until the First World War (defined by Jerusalem Avenue, Koszykowa and Marszałkowska streets). It has been observed that in most parts of the tenement belt, the first "barracks" house building phase ensued in the 1860s, but, as in the case of the Pomological/ Koszyki quarter, it did not get underway until the early-1870s, followed by renewed development in the 1890s. By the turn of the century space for private development was becoming scarce and land prices were rising rapidly. There thus followed a period lasting until 1914, briefly interrupted by the 1905-'7 Revolution, of backbuilding, extending of previously raised tenements, parcelling up of gardens and the demolition of older, lower buildings (cf. "Building phases and the housing shortage in 1864-1914" in Chapter 9). Kronenberg's factory complex, bought up in 1890 by another entrepreneurial plutocrat of Jewish background, Jan Block, was subdivided in 1903 into 9 plots (land registry nos. 1447 and 6405-'12), subsequently built up with 5- or 6- upper storey tenements (composing part of street block 268). Only a side wing of the original 4-storey main building survived this speculative venture typical of what was happening in many parts of the Main City at this time. The "Union" Factory's almost complete disappearance barely 40 years after its construction is also symptomatic of the south-western district's transformation from an area of dispersed industrial location into an intensively built-up tenement district. Smaller manufacturing firms which had established themselves here were either engulfed by the new property development or moved out with the larger factories

to new locations in Wola and Mokotów suburbs. Apart from the factories at the western end of Jerusalem Avenue, a dairy products processing plant on Hoża Street, belonging to the Warsaw Landed Proprietors' Society (c. 1890; street block 267), remained in the tenement belt of *arrondissement* XI.

Koszyki Manor was ripped down in 1900. Its farmlands were dissected by an extension of Wielka (now Lwowska) Street to permit the subparcelling of a maximum number of plots, built up with 5- to 7-upper storey tenements (street blocks 261 and 262). The southward advance of tenement speculation certainly did not end with the 9-storey semi-skyscraper (land registry no. 1762B) on Mokotów Circus (now Union of Lublin Square), but followed the southern extension of Marszałkowska; Nowoaleksandryjska (since 1916 Puławska) Street into Mokotów (cf. Mokotów outer tenement district).

The southern tenement districts (including *arrondissements* IX and XIII) reflect not only some of the more typical processes connected with the development of tenement urban physical form, but also the comparative monotony and mediocrity of housing conditions in the tenement, symptomatic of urban middle class life in the late-19th. and early-20th. centuries. In the case of the Pomological-Koszyki tenement district, this mediocrity would seem to define itself in the street block analysis; i.e. 24- to 25- apartment housing blocks, 3- or 4-room apartments, around one person to a room and a provisions shop on the groundfloor. This statistically-based information may be supplemented with literary and sociologically-related sources from the period as well as the interwar years; in the employing of peasant girls as servants who in

middle-class homes were frequently expected to sleep in the kitchen, the taking on of a "nanny" (*niania*) for the children who was better paid and whom most newly-arrived peasant girls aimed to become, "petty-middle-class" or bourgeois customs, as well as the gradual demise of many inner city tenements as more affluent citizens began to move out to suburban houses in Ochota, Mokotów or, from the 1920s, Żoliborz or rented "luxury" penthouse flats in modernist apartment houses etc. (192)

(tenement district 10)

ALEKSANDRYJSKA-UJAZDÓW

(truncated *arrondissements* XIII+IX)

Street blocks 323-341-351 + 212-223 (Plates VI<sup>d</sup> and VI<sup>e</sup>)

555 developed properties

Inhabitants: 59,499, est. 71,036

Until 1908 Ujazdów and Aleksandryjska *arrondissements* had formed a single, south-eastern municipal district defined by *cyrkuł* IX. The 13th leftbank *arrondissement* took its name from St. Alexander's parish church on the square of the same name (known prior to the church's extension in 1886-'94 as Three Crosses Square, and renamed such after 1919).

Judging from mean calculations presented in annex table VII of apartments and residents in properties, a similar degree of consistency existed in the urban physical form and housing densities of the south-eastern tenement district as in Koszyki. Tenement properties in most south-eastern street blocks were composed of between 23 and 33 apartments (exceptionally, 35- and 39-apartment properties in street blocks 217 and 329 respectively). Only in street blocks 336-341, 215 and 218, following the line of Ujazdów Avenue,

did the number of apartments in properties fall below 20, reflecting a predominance of older buildings (336, 337), larger apartments (340), or villa residences (339, 341, 215, 218). Only in the southern extremities of Ujazdów (220 and 221) did apartment sizes fall below a constant calculation of 3 or 4 rooms per apartment, (including servants' quarters in villas or the wealthiest, "palace" tenements on and around Ujazdów Avenue). Housing densities, allowing for domestics, consistently recorded 1 person per habitable room. Street block 220, recording around 2 people to a room, was largely taken up by the tsarist Lithuanian Guard Barracks which after 1918 had been given over to the Polish armed forces.

It is highly characteristic of the southern tenement belt that even a group of 24 overwhelmingly tenement properties, creating a dense complex of "well" courtyards, represented by street block 340, contained on average only 19 or 20 apartments of 4 or 5 rooms accommodating, with domestic servants, less than 90 residents (compared to a mean calculation for the tenement belt as a whole, excluding the CBD, of 144 inhabitants per developed property in 1919; estimation for 1913 of 163 inhabitants). 11 closed-courtyard tenement properties, one villa and the backbuildings of a 12th tenement have survived to this day in street block 340 (cf. relevant case studies in Chapter 11).

The Polish monarchs' ceremonial route from the Royal Castle by way of Krakowskie Przedmieście, Nowy Świat and Wiejska ("Village") streets to Ujazdów with its royal hunting grounds (later Łazienki Park), extended in the 17th. century to Sobieski's summer residence at Wilanów, defined the city's traditional southerly growth orientation. In the

1730s the Royal Route was deflected away from Wiejska Street by August II's South Axis, or Cavalry Route; the later-named Ujazdów Avenue leading from Three Crosses Square to the present presidential residence (on the site of which the last Polish sovereign, Stanislas August Poniatowski had intended to raise a monumental Clasical residence in the style of John Nash's somewhat later Buckingham Palace). While the developing of Nowy Świat from the mid-18th. century proved an almost entirely mercantile affair, the rationally laid-out Ujazdów Avenue took on a representative quality, leading after 1818 to the Belvedere Palace and following the western edge of Łazienki Park. In 1767/'68, having purchased the Ujazdów Castle and its vast estate commencing from the line of Piękna Street, Stanislas August founded his own east-west axis, extending some 6 kilometers from the castle to Wola village (Nowowiekjska and Pradzyńska streets). Drawing inspiration from contemporaneous French town planning concepts, the king planned two ronds-points where the southern east-west axis crossed Ujazdów Avenue and Marszałkowska Street (Na Rozdrożu and Zbawiciel Squares), which formed the focal points of a star-like system of tree-lined boulevards, (Koszykowa, Szuch, Mokotowska streets). A third rond-point; the Mokotów Circus, was opened at the southern end of Marszałkowska Street where it was intersected by the customs wall (since 1919 Union of Lublin Square). (193)

This period, referred to by Polish historians as the Stanislavian Enlightenment, thus witnessed some large-scale urban planning which was not to be followed up in the 1864-1914 era when the city's urban development on a truly large scale was to take place. In spite of the prolonging of rational town planning under the Congress Kingdom's

authorities into the first half of the 19th. century, the urban initiative undertaken in the 1770s and 1780s effectively defined Warsaw's area of spatial development for the next 100 years.

The future street network of the northern part of the south-western district had begun to take shape somewhat earlier than the reign of Poland's last monarch. In 1702 the private township of Bożydar - i.e. "God's gift" - referring to the owner's fortune of being bequeathed these lands - was founded at the southern end of Nowy Świat, resulting in the subparcelling of building plots between Chmielna Street and Three Crosses Square as far west as Bracka Street. The setting up of Bożydar in the future Aleksandryjska districts (as in the founding of Nowy Świat and Bielino jurisdictions in *arrondissements* X, Grzybów in VIII, Wielopole in VII and Leszno in III) represents an initial, semi-feudal phase in the evolution of *arrondissement* XIII. Former fieldroads, as in Muranów, Mirów and Grzybów districts, following the east-west direction of agrarian land divisions, became streets in the 18th. century which, in the cases of Nowogrodzka, Zurawia, Wspólna, Hoża and Wilcza streets, were regulated by Mateus Deutsch (cf. Fig. 2.9). In 1774 the magnate owner of Bożydar jurisdiction, August Sułkowski, with a mind to profiteering from the Jewish community's inability to be permanently registered as residing in Warsaw, set up just outside the customs wall behind modern day Zawisz Square the New Jerusalem settlement. A strip of farmland extending some 3 kilometres westwards from Bracka Street, already bought up by Sułkowski in 1766, was intended to provide the inhabitants of New Jerusalem with direct access to Bożydar. In time, this 3-kilometre route became the Jerusalem Avenue

(Aleja Jerozolimska, renamed Aleje Jerozolimskie around 1908 in connection with the raising of a viaduct leading to the Third Bridge over the Vistula; i.e. Jerusalem "Avenues"). Regulated with a constant width of 40 m., paved and lined with trees in 1823-'24, the Avenues divided the southern quarters from the older and more intensively built-up central, northern and western districts. (194)

It has been established that tenement development had replaced or incorporated a certain degree of industrial location in Pomological-Koszyki district lying on the western side of South-Marszałkowska Street. In the south-eastern district, however, it was not industrial location which made way for the tenement house so much as genteel suburban habitation. Warsaw's aristocracy, but above all its rising plutocracy and men of society, such as lawyers, doctors or indeed architects, had begun in the 1840s to raise single family houses, villas and even some palatial residences on Ujazdów Avenue, the intersecting, tree-lined Piękna ("Beautiful") Street and several side-roads, such as Róż (Rose) Avenue. This villa district arose well beyond the town houses and wooden service buildings of early-19th. century Warsaw, the furthest southward penetration of which was represented by the neo-Classical merchants' houses of South-Nowy Świat Street. The Noble Institute - literally that - was put up near the escarpment in 1857 (partially demolished after 1947, but partially readapted to serve as modern Poland's Parliament, or *Sejm*).

The revised Engineer Officer Corps city plan of 1867 informs us that plot parcellisation and even some early tenement housing (frontal buildings with 1 or at most 2 side buildings), was already underway behind South-Nowy Świat



Street and Three Crosses Square, on Nowogrodzka, Żurawia and Wspólna streets, but also advancing along Mokotowska Street (including the house of poet Ignacy Kraszewski from 1860, still extant) and, inevitably, along South-Marszałkowska Street. The villas or palaces of the Bławacki, Biernacki, Ankiewicz, Rembieliński, Kruz, Heurich and Rau families were to survive the ensuing tenement takeover of this area from the 1860s. These villas were even joined by more eclectic residences of the Dziewulskis, Wernickis, Lilpops, Wielopolskis, Arveufs, Szelechors, Szymbaroks and others in the 1870s, 1880s and 1890s.<sup>(195)</sup> The representative character of Ujazdów Avenue was thus retained and even enhanced by the laying out after 1893 of Ujazdów Park, as well as the raising from 1900 of the Suvurov Army Cadets Headquarters (street block 220) and a Russian Orthodox temple behind Na Rozdrożu Square (pulled down in the 1920s). Single-family villa residences were also built on the escarpment side of the old South Axis (Frascati Gardens). For those who could not afford their own villa "palatial surroundings" were offered by the luxury apartments of palace tenements raised mainly on Upper Ujazdów Avenue. Wealthier housing was also put up initially on Krucza Street which ran parallel to and had been laid out roughly mid-way between Ujazdów Avenue and Marszałkowska Street. Nevertheless, prestigious addresses were associated with the Avenue and its villa or luxury tenement side roads (i.e. Róż Avenue, Chopin, Piękna, Instytutowa and Frascati streets). The solid "barracks" houses of Marszałkowska, Krucza, Mokotowska and their east-west running side-streets were for the middling classes and professions.

"On Krucza stand the perfect Warsaw tenement houses;

The authentic ones predating the 'liberalising effect' of Art-Nouveau", (i.e. 1898-1905), "and already devoid of the modest taste which all houses built before the January Insurrection" (in 1863) "possess." (198)

The earlier years of Krucza as a residential street - developed, with very few exceptions with 3-floor, overwhelmingly single-courtyard tenements between c. 1865 and c. 1879 - would seem to have been considerably more genteel than the petty-bourgeois world so derisively, but accurately, described by interwar publicists like A. Sobański and F. Lewicki. In the perhaps only truly epic literary work offering an all-embracing picture of late-19th. century Warsaw; i.e. *Lalka* ("The Doll") by realist writer, Bolesław Prus, the Łęcki noble family were depicted as living in the house on Krucza no. 26. The street's social demise was partly reflected in the adapting of groundfloor living space into shops from the late-1890s. Prus's satirically-portrayed Łęcki family was certainly poorly adapted to the new economic era of post-peasant emancipation Russia, as well as financially weak; maybe their children and grandchildren it was who surrendered their pride and subletted the groundfloor to shop proprietors and even upper floor apartments to tenants (cf. in Chapter 9: "Housebuilding fluctuations in Warsaw's urban development from the mid-19th. century until 1914" and in particular the quote by J. Cegielski concerning a burgeoning urban middle class together with the landed gentry's movement into the city from the early-1860s).

The tenement was, if nothing else, versatile; different levels could easily be isolated from each other, apartments could be cheaply sub-partitioned (cf. "Apartment subdivisions" in Chapter 10).

Certainly, those with the mind for it - as well as the money - preferred to move out of Krucza to more up-to-date penthouse-"luxury" flats in "Secessionist"; i.e. Art-Nouveau, apartment blocks, or even to quit the inner city altogether in favour of the more selective suburbs, like Mokotów or later on Żoliborz. In both cases, such people were observed by Lewicki to have taken with them: "their veneered and plush Victorian furniture which continues to reign under walls overhung with gold-coloured frames holding the imitation cows of one Pre-Raphaelite or the fainting busts of another, provoking dangerous complexes among the next generation of deputy-chiefs and sub-managers". Those people who remained behind with their mass-manufactured pseudo-Biedermeier tables and chairs, their imitation Pre-Raphaelites, "whatnot shelves, peacock feathers, pier glasses, lavatory pans, cottage pianos covered with a tassled bedspread, mounted photographs, prints of Grunwald and busts of General Kościuszko" (as well as the house-bugs) were perceived by the 1930s as providing the social backbone of the tenement house city:

"The middle-class Warsaw man, a hardened conservative, is not taking part in the current housing revolution. (...) He resides, if not in reality then at least potentially, in the annex" (i.e. in the first back - and/or one of the side-buildings of the first courtyard). "Here, amid the smells of cooked cabbage and the cat, he celebrates his family life with the 'little courier'" (i.e. the daily Warsaw Courier, *Kurier Warszawski*) "which follows the afternoon meal; here, among the family photographs, to a background symphony coming from the courtyard of street-sellers and fortune-tellers' cries, (...) gramophone concerts, arguing skivvies, Karl Czerny's" (piano recital)

"lessons and hopscotch. The daytime lack of sunlight, greenery and sky doesn't both him; the windows, looking out from dark, carpeted rooms, are screened with great dusty curtains. Any need he might feel for fresh air is satisfied by airing bed-linen on the balcony and the Sunday picnic. He is content; there is no other way he would live his life." (197)

Figure 2.9:

New streets laid out in the late-18th. century within the post-1770 customs wall.

**FAWORY**  
**JAN TYLNER**  
**1760s**

*—* streets pre-dating 1767  
(approx. built-up area in 1760s)

**WILCZA** new street laid-out in c. 1767-1784 according to Deutsch, Tylner or geometrysts of Stanislaus Augustus.

*---* THE CUSTOMS WALL (1770)

**WARSAW**  
**MACIEJ DEUTSCH**  
**1767-70**

**UJAZDÓW "STAR" NETWORK**  
**(1767): FRENCH INFLUENCE**

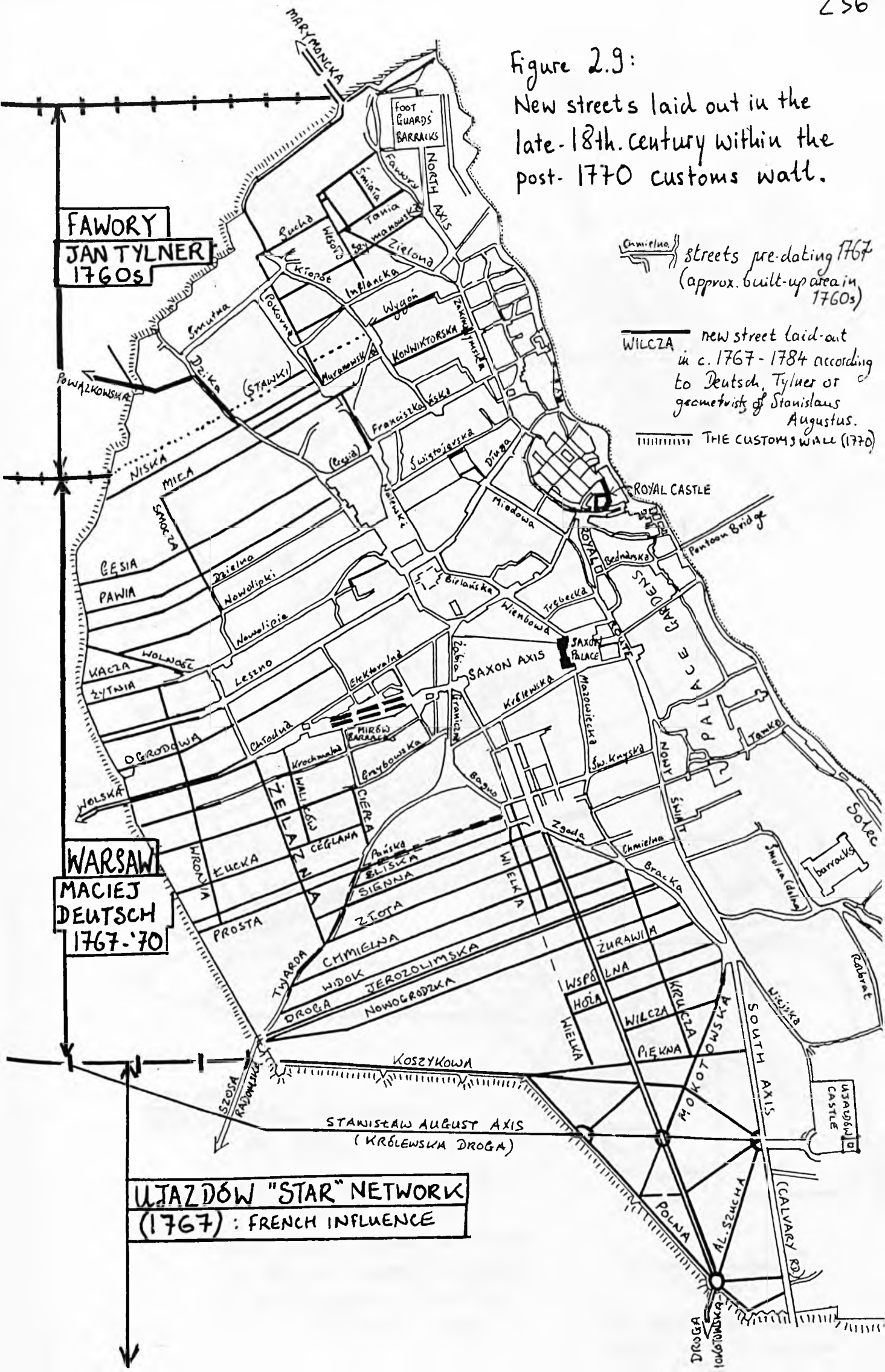


Figure 2.10: New streets laid-out in 1815-1870

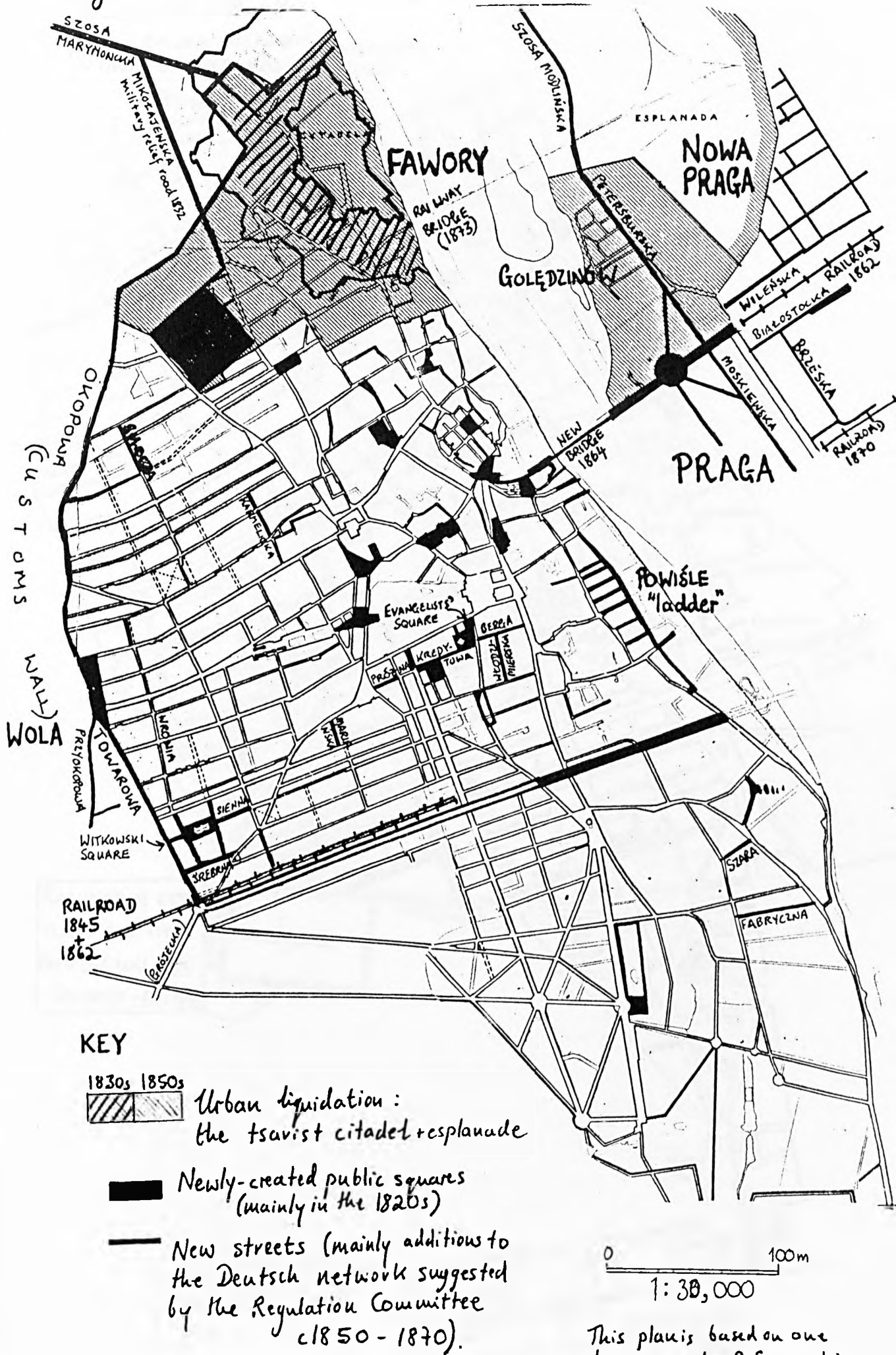
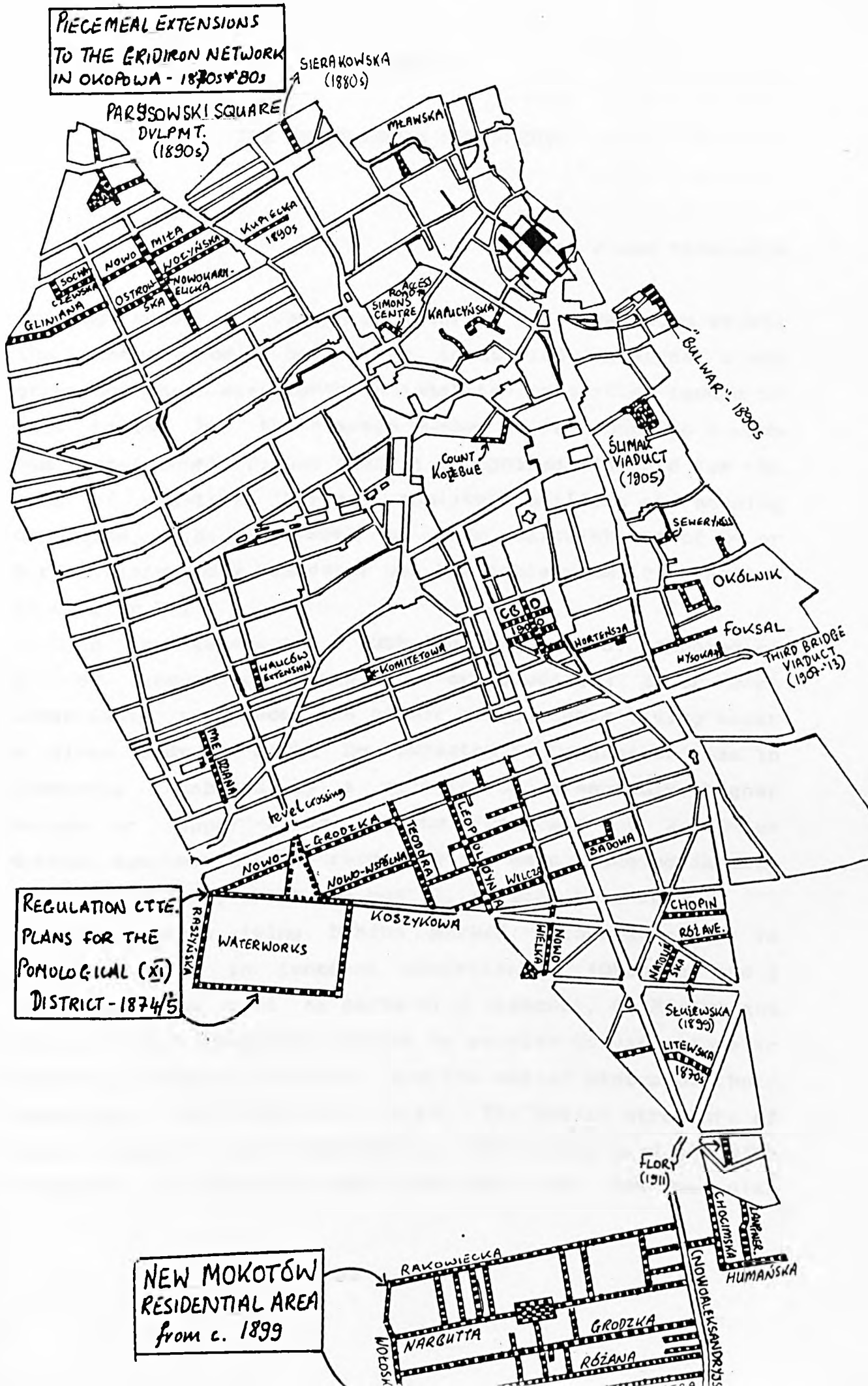




Figure 2.11: New streets in the study area laid out in 1870-1914 including Mokotów; tenement belt assimilation



PIECEMEAL EXTENSIONS TO THE GRIDIRON NETWORK IN OKOŁWA - 1870s & 80s

PARYSOWSKI SQUARE DVLPMT. (1890s)

SIERAKOWSKA (1880s)

MEANSKA

KARACZYŃSKA

COUNT KOPELUE

ŚLIMAK VIADUCT (1905)

SEWIERSKA

OKÓLNIAK

FOKSAL

HYSOWA

THIRD BRIDGE VIADUCT (1902-13)

level crossing

NOWO-GRODZKA

NOWO-WSPOLNA

WILCZA

SĄDOWA

CHOPIN

RÓŻANIEC

SEWIERSKA (1899)

LITEWSKA (1870s)

FLORY (1911)

CHOCIMSKA

HUMANSKA

NEW MOKOTÓW RESIDENTIAL AREA from c. 1899

RAKOWIECKA

NARBUTTA

GRODZKA

RÓŻANA

WOLSKA

SIEMONIA EKSMUNDOWSKA

## CHAPTER 7

## THE INNER-URBAN PERIPHERY

## Working class tenements

Working class or Jewish proletarian quarters lying within the tenement belt have been identified in street block groupings where apartments in inhabited properties tended to fall below, but the average number of residents to a room was consistently higher than, a recognised standard for the zone of constant "barrack quality" building and housing densities; i.e. expressed by mean calculations of 2- or 3-room flats and 2 residents per habitable room (cf. Table 8 in Chapter 5).

In the tenements of such poorer quarters, composed of 1- or 2-room apartments and accommodating 3 or more inhabitants to a room, the number of residents living under a given address might be expected to be greater than in tenements inhabited by a majority of, presumably, higher income or "upper"-class tenants, composed of 2-, 3- or 4-room apartments and recording a mean housing density calculation of 1, or at the most 2, persons to a room.

The causes lying behind marked inconsistencies in property sizes in tenement districts 4 (Okopowa) and 8 (Towarowa), as well as parts of 2 (Leszno), 6 (Mirów) and enclaves in 7 (Grzybów), cannot be related to variations in building phases, functions and the social status of their inhabitants, as in the city centre. The social structure of these tenement belt quarters has been recognised as being dominated by underprivileged urban dwellers. The base plan



records a significant proportion of wooden buildings and dispersed stone/brick houses in the Okopowa, as well as the western-end street blocks of Leszno and Mirów tenement districts, while in the Towarowa large factory complexes occupied whole or major parts of the street block. In effect, while residential tenement or semi-residential property construction in most parts of the belt had been continuous, in industrial or other markedly urban proletarian quarters within the pre-1916 city limits, the tenement had come to take up only part of the street block. This lack of homogenous tenement development in strongly-defined urban proletarian sections of the tenement belt (as well as the absolute failure in the absence of effective municipal or state legislation to isolate factory location from residential building) seem to suggest the failure of a model tenement house building form to evolve in Warsaw for the working classes, as it had evidently evolved in Koszyki, Aleksandryjska and other tenement belt districts for the middling classes. Evidence of this hypothetical absence of a mass-constructed, standardised working class tenement, of the type raised in Berlin's Wedding or Prenzlauer Berg working class districts or the Viennese *Bassenahaus*, is indicated by a variety of sources:

(a) the lack of continuous property development on the base plan in working class districts such as Towarowa or Okopowa, even though "barracks quality" housing characteristics have been calculated in most of the street blocks composing such quarters;

(b) the comparatively secondary impact of large-scale industrial production on Warsaw's functional and social structures, discouraging the growth of a well-defined industrial workforce (by 1914, 56,071 in factories employing

more than 50 workers in a metropolitan area of over a million inhabitants);

(c) the customary association in contemporaneous and interwar social criticism of tenement housing with the urban experience of the middle classes (cf. especially tenement districts 9 and 10).

In manufacturing towns of the 19th. century housing for factory employees and other industrial workers was frequently provided by industrialists whom in the classic interpretation of 19th. century urban transformation, extracted gains both from the production of goods and from renting sites for production and housing. (198) In the textile manufacturing towns of Łódź and Żyrardów, for example, mill owners financed the constructing of housing colonies for, but also secured rents from, their workers. (199) In Warsaw properties of this kind were raised in the inner-peripheral, predominantly working class districts of Powiśle, Wola Suburb and Praga. Such buildings, however, in contrast to the tenement belt of predominantly middle or upper class housing, did not form a continuous built-up urban pattern, but, reflecting the physical form of large parts of these districts - were dispersed among smaller building types, including wooden houses, as well as the factories themselves. These working class tenements varied enormously in size and layout, as well as in the standards and facilities they provided for their residents, depending on the extent to which the owner's motivations were geared to profiteering from his workforce's housing requirements apart from their labour. The Towarowa tenement district and western end of Grzybów *arrondissement* have in part preserved to this day some properties of an identifiably proletarian social history.

although they belonged in the main to property speculators rather than factory owners and were rented out to artisans or better-earning industrial employees, (cf. Śliska 52-56, Ziota 83, Łucka 8 and other proletarian/lower middle class tenement building types; e.g. in Wola and Praga in Chapter 11).

"(...) the sharp rise of rents in central Paris (...) brought about a working class exodus, both to the newly annexed *arrondissements* of 1860 and beyond the municipal boundaries entirely. The consequence was a disproportionately middle-class Paris surrounded by a ring of industrial and working-class suburbs, surrounded in turn by a ring of equally working-class 'grands ensembles'". (200)

Even if Paris could ever be rejected as the archetypal continental model of largescale urban form in the 19th. century, the pattern described here by D. J. Olsen of concentric "rings" of class-orientated residential districts surrounded by the famed *bidonvilles* of makeshift, proletarian wooden housing (i.e. replaced in part by the "grands ensembles") is undeniably analogous to the urban profile evolving from the mid-1800s in Warsaw.

The riverside inner-peripheral district of Powiśle  
(Plate VII<sup>a</sup>)

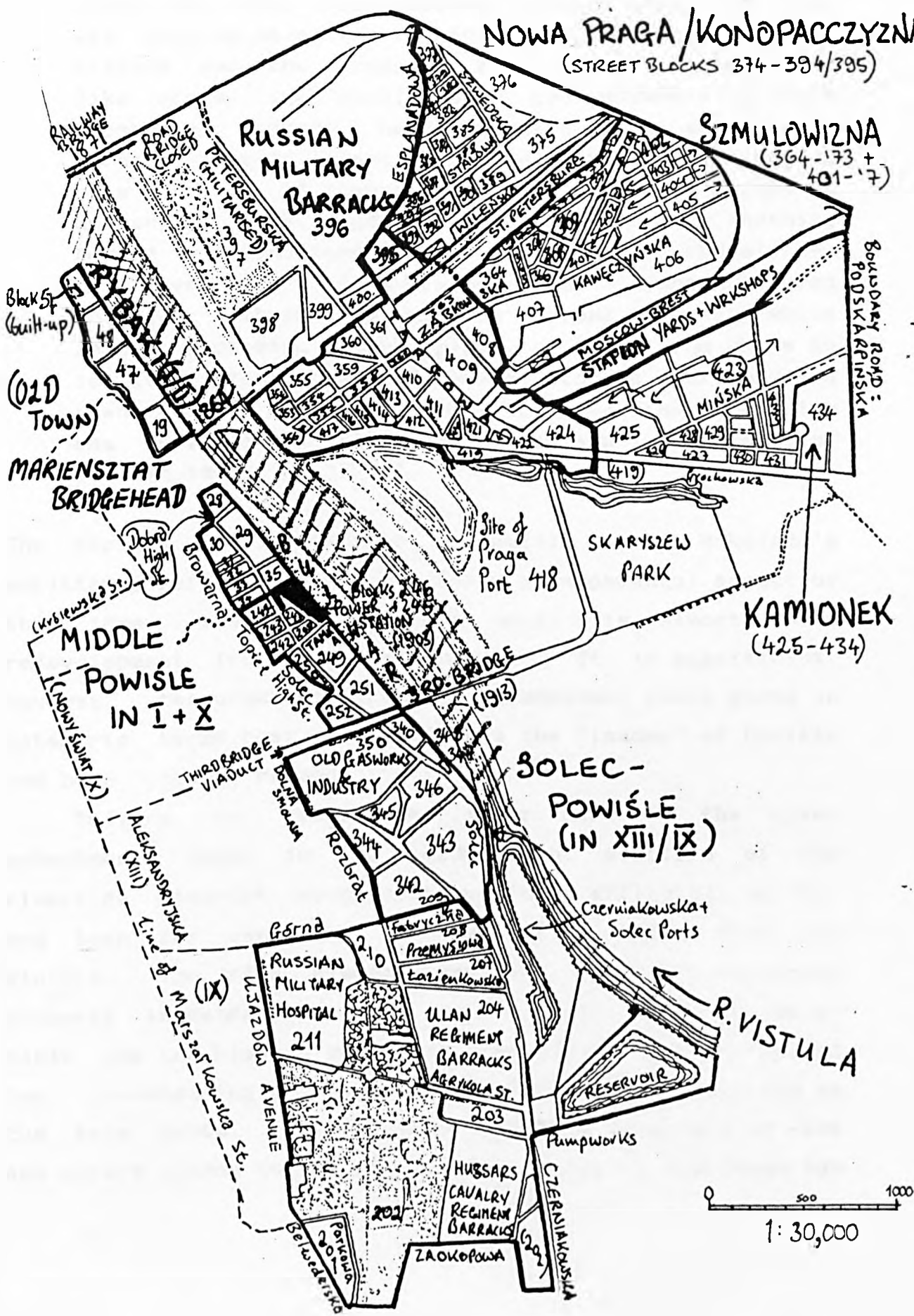
The natural topographical divide between "lower town" and "Main City" has been touched on in Chapter 2 (cf. "Peripheral areas in the Mid-Town *arrondissements*") and Chapter 3 (cf. "The demographic pattern in 1913 : the municipal districts"). In the analysis of urban structure

and population distribution at street block scale, it has not been possible to separate the inner core/tenement belt study area from the riverside district in accordance with what is perceived as the true, topographical demarcation line of the Vistula escarpment. Instead, it has proved necessary to draw a line following the streets: Rybaki, Bugaj, Nowy Zjazd (retaining the Mariensztat Bridgehead within the area under intensive investigation as inner core area D), continuing along Browarna, Topiel, Solec, Czerwonego Krzyża, (Lower/"Dolna") Smolna and Rozbrat streets, thus including, unavoidably, small enclaves of lower town properties grouped in street blocks 56, 49, 46, 10, 9, 241, 253, 351, and 341, within the inner core and tenement belt study district. In annex table VII the inner-periphery street blocks of Powiśle have been organised into 5 sub-quarters: Rybaki, lying below the Old and New Towns, (nos. 19, 47, 48 and the built-up area of 57), "Powiśle I" (nos. 28-35), "Powiśle X" (nos. 242-252), "Powiśle XIII" (nos. 342-350) and "Powiśle IX" (nos. 201-211), in accordance with the riverside district's administrative partition between the corresponding 2nd, 1st, 10th, 13th and 9th *arrondissements*, (cf. Fig. 2.12).

An evocative, as well as symbolic picture of Powiśle from about 1878 is offered through the eyes of Bolesław Prus's alter ego antihero, Wokulski in a popular quote from the novel *Lalka*:

"(...) he turned into Karowa Street" (from *Krakowskie Przedmieście*). (...) It seemed to him (...) that he was slowly drifting down with this gutter squeezed between walls from time immemorial. (...) He stopped halfway down the street to look out over the district stretching below him between Nowy Zjazd and Tamka

Figure 2.12: Powiśle (leftbank riverside) and Praga (rightbank) inner-peripheral districts (1914)



streets. He was struck by its resemblance to a ladder whose one side was composed of Dobra while the other was made up of a line running from Garbarska to Topiel streets and the crossing side-streets seemed to be like steps. <We shall never get anywhere by this prostrate ladder> he thought; <This is a sick corner, a wild place.> And he bitterly reflected on this stretch of riverside, buried under the refuse of an entire city, and how it would never bear anything beyond groundfloor or one-floor, chocolate-, bright-yellow-, dark-green-, or orange-coloured cottages. There was nothing beyond black-and-white fences enclosing empty plots of land, from where an isolated stone house of several storeys every now and then caught the eye, like a lonesome pine tree which has survived the felling of a wood and is terrified by its own isolation."(201)

The picture Prus presented of Powiśle through Wokulski's embittered reflections was to remain a fundamental aspect of the lower town's urban form until its almost total redevelopment from the later-1940s. It is significant, however, the urban historian E. Szwankowski could state in categorical terms that by around 1910 the "ladder" of Powiśle had been "totally raised".(203)

Failure to realise a larger part of the river embankment begun in the 1820s meant settlers of the riverside district would continue to be afflicted, as they had been for centuries, by regular flooding from the Vistula. The risk element was too great to encourage property investment on any large scale, while the water table was too high to permit in most places anything beyond low, overwhelmingly wooden housing of the kind depicted in the Prus quote. On the other hand, the cheapness of land and direct access to the river, which prior to the Steam Age

served as a major communication route for the city, encouraged industrial location at an early stage. The first machines permitting large-scale industrial production arrived in Warsaw from Britain by river boat after the Napoleonic Wars. A port and warehouse area had already grown up in the south-end of Powiśle behind Solec High Street. This local main road had taken its name from the mediaeval village of Solec which had later become a private jurisdiction. Long plots bisected by Solec and Czerniakowska streets, developed in the late-18th. century with low commercial-warehousing and small industrial buildings, became the site of an early-19th. century district representing an early phase in Warsaw's industrial age expansion, centred around a 6-storey mill, steam-engine, chemical and carpet factories as well as breweries and, from 1856 Warsaw's first gasworks, concentrated in and around street block no. 350.

Intensive urban development below the escarpment thus initially focussed on two district areas isolated from each other at the southern end and far to the north at the Mariensztat bridgehead (cf. inner core area D). The area stretching from Solec to Mariensztat, roughly complying with the "ladder" street network between Tamka and Nowy Zjazd streets, took shape much later; the urban process was seriously hampered by the incompleting Vistula embankment. The opening in 1910 of a two-level riverside boulevard helped to integrate the three main sub-quarters of Powiśle and had already been preceded by extensive residential property development in street blocks 30-34, 242-244 and 250, while riverfront blocks behind Dobra High Street were largely occupied by municipal service buildings such as the cement-mixing works, rubbish disposal plant, a water pumping

works dating from 1856 when the first town water supply system had been constructed and the electric power station opened in 1902. Apart from some quite monumental, 4-floor tenements put up from the late-1890s, the tsarist authorities would not tolerate private speculation and building along the Embankment, thereby blocking any concepts of creating a representative riverside boulevard (since 1919 known as the Kościuszko Embankment, adapted somewhat controversially in the 1970s into a motorway, symbolic of the victory of characterless and destructive urban-expressway planning even in under-developed communist countries like the ex-Polish Peoples' Republic). (202)

The declining importance of industrial production and increasing emphasis from the turn of the century on residential building - especially in the area lying between Dobra-(upper) Solec streets and the escarpment which had only recently become attractive to property speculators - reflects Powiśle's gradual and delayed urban integration within the Main City. The continuing proletarian character of the riverside district's social structure is indicted by the overwhelming proportion of 1- and 2-room apartments and high housing densities (usually 3 or even 4 residents to a room), as much as by inconsistent property development ranging from enclaves or "lonesome" cases of multi-apartment "barracks" houses to small, but crowded wooden cottages. The northern prolongation of Powiśle, situated at the foot of Warsaw's Old and New Town districts, had originally grown up as mediaeval fishermen's villages (Rybitwy and Waliszewo) and, composed mainly of one-storey wooden cottages or storehouses, lent an overall impression of belonging to a small provincial town (largely burnt down in 1944 or demolished in the 1950s).



## Workers' housing in Solec-Powiśle

The oldest part of the Vistula embankment constructed in the 1820s protected Warsaw's first exclusively industrial district, centering on a giant steam-powered corn mill (1826-'27, closed down in the 1870s and adapted into military barracks, non-extant). The area lying behind the mill, stretching southwards as far as the Czerniakowski port at the intersection of Solec and Czerniakowska streets, experienced some intensive residential building activity; particularly in the 1850s and 1860s when the raising of houses designed for factory workers was undertaken by individual industrialists or cooperative set up and directed by mill and factory owners.

The earliest example of dwellings specifically designed to house industrial workers, identified in archival documents dated 1833, formed part of the corn mill complex; a 2-storey pavillion made up of three segments containing their own entrances and staircases (non-extant and no building plans preserved).

In the 1860s plans were drawn up for an entire workers' housing estate on the initiative of count A. Zamojski, an aristocrat-industrialist who provided the land and persuaded some Solec-Powiśle factory owners to set up with him a housing cooperative. The envisaged estate was to consist of 4 sets of 4 inter-connecting 3- or 4-storey terraces, 12 m. in width and arranged around an expansive central courtyard-garden with a children's play area etc. Building permission was granted in August 1862 and a grant even secured from the Home Rule authorities, but these plans were never to be implemented; the outbreak some four months later of the Polish Uprising (January 1863) and Zamojski's

emigration to the West being the obvious prime reasons.

Zamojski's was the only workers' estate to come even near to realisation before the interwar cooperatives. A second group of industrialists with less ambitious but potentially more provident aims founded, also in 1862, the "Civilian Building Cooperative for Artisans and (factory) workers" ("Spółka Cywilna Budowy Domów dla Rzemieślników i Robotników"). Led by another aristocrat prince, J.T. Lubomirski, president of the Warsaw Charity Society (which following the Russian takeover of government in the Congress Kingdom was to operate as a politically unaffiliated, private organisation), the Cooperative set out to fund the construction of "healthy" flats, curbing sub-letting and providing basic domestic requirements for industrial workers within their financial means. A large plot of land was purchased by the Cooperative in Solec-Powisłe (part of street block no. 342); the site of two houses raised in accordance with the programme of 30- to 40- apartments, of which around three quarters were supposed to be singleroom flats. The architect employed, Henri Marconi took his model from workers' houses already put up in Berlin to design a corner building of 3-upper storeys consisting of 41 singleroom and 12 two-room apartments, entered from two sets of corridors on each floor which led to a single staircase (Czerniakowska no. 83). As a corner house, Marconi's project was composed of 2 connecting frontal buildings with no residential outbuildings; a significant feature in contrast to the speculative housing properties beginning to appear in Warsaw at that time which had evolved such outbuildings. The Building Society, at least initially, was eager to maximise healthy living conditions and minimise overcrowding, laying aside courtyard space for service

buildings and gardens. Its housing programme was highly commendable, but very out of tune with the social and economic realities of its time. Moreover, this philanthropic organisation proved incapable of gathering sufficient financial sources, further complicated after the January Uprising by the loss of influential contacts in higher places, to make any real impact on the generally appalling lot of Warsaw's proletarian populace, which following the social reforms of 1862-'4, including peasant emancipation, was increasing on a scale unprecedented in the city's history:

(...) even while propogating concepts of a progressive nature, this society was essentially utopian and in no position to combat the growing housing disaster."(204)

Until 1897 when it finally dissolved itself, the Civil Society for the Building of Artisans' and Workers' Houses succeeded in putting up a pitiful 4 "workers'" tenements and 2 semi-detached, 2-family houses. Worse still, the rents demanded by the Society proved way beyond the financial possibilities of most factory workers and thus attracted only higher income artisans. Strong competition to live in the society's houses can be imagined among better-paid working class families; a precedent had been set for the interwar subsidised housing estates which, for families fortunate enough to reside in them, were to become the basis for an optimistic future, but viewed in a wider context did very little to relieve the city's housing shortage up to 1939. Apart from extending in 1881 the corner house on Czerniakowska Street (81/2993A), the other two tenement blocks were raised on Pańska 68/1227B (1862; also designed

by H.Marconi) and Sienna 85/1147D (1885) streets in the Towarowa quarter. These properties, like the later-built, privately owned Łucka 8/1149 and Złota 83/5863, were also rented mainly by artisans, rather than factory workers (cf. tenement belt study district 8). (205)

Even if the building society funding these properties was ill-fated, the two residential blocks designed in 1862 by Marconi (the elder), on Czerniakowska and Pańska streets may be interpreted as playing a major role in the constructional evolution of the Warsaw tenement house for a number of reasons:

a) these were among the first identifiably multi-apartment blocks tenanted to residents in the city and their "barracks" - corridor plan was to be introduced in the mass-construction of lower-quality tenement housing;

b) they were among the earliest private buildings beyond the Old Town and its immediate environs to rise above the 2-storey cornice line which had been generally obligatory in property construction during the 1815-1864 Home Rule period;

c) the architect had drawn his building model from Berlin providing a tangible link with tenement building form in Warsaw during the 1864-1914 era, underlined by the former city's transition into a "tenement house city" (*Mietskaserne*stadt) of colossal dimensions (almost 4 million people by 1914);

d) the virtual and immediate absence of poorer urban residents among the tenants of houses which had in theory been designed for the lowest income bracket provides concrete evidence of the poorest social groups' exclusion from the tenement city of Warsaw as a whole (except where attic-basement- or singleroom flats

were cheaply rented or subletted to groups of people or several families at a time, resulting in the evident overcrowding which characterised many inner city properties, especially in more working-class quarters of the tenement belt, inner-peripheral districts and the suburbs).

The ignominious disbanding of Lubomirski's "artisans' and workers'" building society in 1897 is symbolic of the general failure of charitable or semi-charitable housing foundations to ease the lot of the city's urban proletariat beyond, that is, isolated projects such as those in Powiśle, as well as Praga and Wola, for a fortunate but tiny minority. The overall lack of public finance was a problem hardly exceptional to Warsaw's large-scale urban expansion from the mid-19th. century. However, in the case of this particular "big city" a crisis of truly gigantic dimensions was all the more exacerbated by the imposing after 1864 of tsarist centralised government, which was very good at crushing localised rebellion, but at best incompetent and at worst utterly indifferent when dealing with issues of social welfare, such as housing. Polish, and for that matter Jewish, society's inability to prevent - or indifference towards - what would seem to have been particularly extreme, but worst of all largely uncontrolled, property speculation in late-19th. century Warsaw would also need to be looked into when considering this multi-faceted question.

Outlying shanty towns and *biddonvilles*

Municipal government was too seriously underfinanced to even begin to tackle the housing shortage; so far as such a problem was recognised as even existing. State intervention and private initiatives, beyond isolated examples, had an insignificant impact on the overall situation: aspects typical of 19th-century society, but all the more extreme in their implications when compared with deficient housing standards in western European cities (although the scale of human poverty in a city verging on one million inhabitants would not be expected to compare with that of yet larger agglomerations). If multi-apartment stone/brick houses of the Viennese *Bassenahaus* format, or of the type found in Berlin's proletarian quarters - as analogous with industrial Britain's working class terraces - did not come into being on a large scale, it would be supposed that wooden houses in outlying districts, taking the form of shanty town development, represented a spontaneous, unplanned urban habitat for a substantial part of the city's *Lumpenproletariat*. Warsaw's suburban wooden districts are conceived as an "urban outback" or by-product of the socio-economic processes simultaneously creating the "tenement-barracks-city" (cf. "The anti-tenement city" in Chapter 8).

The rightbank inner-peripheral district of Praga  
(Plate VII<sup>b</sup>)

Praga had arisen on the opposite bank of a wide, largely unregulated river which to all intents and purposes had not been linked with the Main City by a permanent bridge until 1864; and even then only at one point, until a second was opened to rail traffic (1875), followed, finally, by the opening of a third mere months before the outbreak of World War I. (206)

The East Bank city had, inevitably, evolved its own distinct urban physical form and social structure, which even today contrast sharply with leftbank Warsaw's internal structure (refer also to "Praga" section of Chapter 2). This distinctiveness tends to undermine the methodological relevance of empirically investigating Praga's partially-preserved urban topography from the study period, in order to supplement the lack of archival documentation relating to the heavily-destroyed West Bank inner city (i.e. building plans, contrasts in flat sizes within the same property, continuity in housing densities, shops, workshops and other functions apart from residential etc. (refer to relevant sections of Chapter 9 and 10).

A sizeable marketing centre (c. 10,000 inhabitants by 1792 with its origins in the middle ages had grown up along open market places evolving into the Targowa ("Market") and Wołowa ("Cattle") high streets, running parallel to the Vistula, (cattle as a rule were not permitted to cross the pre-1864 pontoon bridge(s) while tolls had to be paid on agrarian produce being transported to Warsaw). Jewish settlers found a comparatively more secure home in Praga, which until 1794 lay outside the leftbank city's

jurisdiction and thus did not fall under the *de non tolerandis Judaëis* (Warsaw's first permanent synagogue was put up in the 1840s on the East, not the West Bank; its burnt-out mass demolished in the 1960s). The widely-dispersed, wooden township subjected, like the leftbank riverside district of Powiśle, to regular flooding by the Vistula was gutted by the Russian armies in 1794 and its inhabitants massacred. In 1806 most of the remaining or burnt-out houses situated on the river side of Targowa-Wołowa were pulled down by the French to make way for a fortress (removed after 1818). As late as in 1854 the general impression, beyond the markets on Targowa-Wołowa High Street, was one of stagnation:

"Praga, destroyed and depopulated, lay in ruins and there doesn't seem any hope that anything will ever rise up from them." (207)

Recovery came in the 1860s with the St. Petersburg railway terminus (1862; now the Vilnius/Wilno local service station from where trains go no further east than Białystok). The Kierbedź Bridge was raised to connect this, the second railroad station, with the Main City (refer to inner core area D). The tsarist authorities, in an apparent bid to create a district for their civil and military servants, laid out a network of new streets centering on a great circular place (named from 1918 in honour of veterans from the 1863 Uprising). But while St. Petersburg gave it also took away, for the demolishing in the 1860s of Gołędzinów quarter to make way for an enlarging of the Citadel Esplanade (partially occupied by the Alexander Park opened in 1865) created an identical situation on the East



Bank as in the left bank inner city, whereby integrated urban expansion northwards was blocked. In spite of this major drawback, Praga was to enjoy considerably more favourable conditions for open spatial development than the Main City, with which at least one group of tsarist bureaucrats at one period in time were intending the East bank new town (which did at least retain its historic name) should compete. The Terespol Railroad was opened in 1867, thus linking Warsaw via Brest Litovsk with Moscow and Kiev, followed in 1877 by the "Baltic Line" (*linia nadwiślańska*) from Königsberg/Miawa which was extended to Kovel in Volhynia, thereby opening a second connection with Kiev and Odessa on the Black Sea. Municipal extensions in 1889 more than doubled the administrative area (810 ha.), further enlarged before 1914 to c. 945 hectares; i.e. almost half the area, including military zones, of the Main City (2360 ha.). The inner-rightbank suburban quarters of "New" Praga: the Konopaccyzna, already founded in 1861 by the landowner, Ksawery Konopacki, Szmulowizna and, to a lesser extent, Kamionek, were sub-parcelled and built up. (208)

The post-1908 municipal division between "North" (XIV) and "South" (XV) Praga was at odds with the rightbank district's spatial lay-out, physical form and functional structure. Sub-study areas, therefore, have been defined:

- 1) "Old" (Stara) Praga, consisting of what had remained of the historic nucleus, (street block nos. 352-'63 + 408-'24);
- 2) "new" (Nowa) Praga - "Konopaccyzna (nos. 374-'95) - "Szmulowizna" (nos. 364-'73 + 401-'7) - "Kamionek" (nos. 425-'34);

3) Military and undeveloped (green); nos. 396-400, 418+435

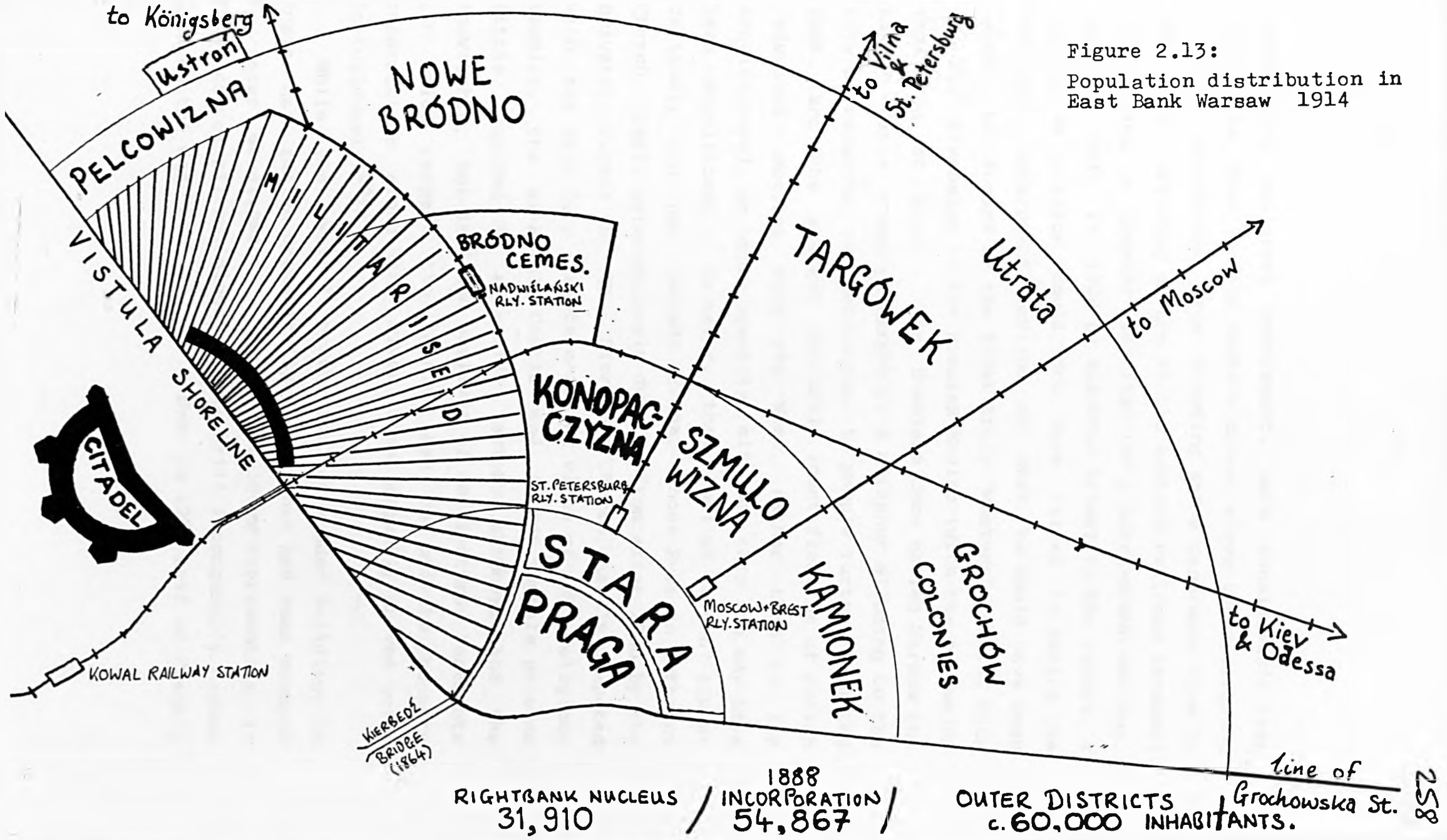
(cf. Fig. 2.12)

The dispersed nature of urban settlement on the East bank, a characteristic of some Eastern European, and especially Russian cities, is well reflected by the population distribution, based on 1913 recordings: 31,910 (Stara Praga nucleus); 54,867 (post-1889 incorporated area of "New" Praga); c. 60,000 (unintegrated outer wooden districts of Targówek, Nowe Bródno, Pelcowizna; cf. Fig. 2.13 ).

The East bank's quite phenomenal transformation between c. 1862 and 1914 was certainly symptomatic of its strategic importance and the mixed fortunes of tsarist "hand in glove" policies. By 1914 it accounted for nearly 15% of the inner city's developed properties, compared to a meagre 6% in 1847. During the same period the number of inhabitants had also risen dramatically from less than 5000 to over 90,000; the fact even in 1914 this figure represented just 10.7% of the overall inner city population well emphasises Praga's distinctness in relation to the leftbank *arrondissements*. That is not to say housing conditions were less crowded in rightbank Warsaw, for in spite of Russian interest Praga cut a very poor comparison with the Main City where, in spite of the urban explosion, growth had been more gradual and integrated, while the victory of tenement house "mediocrity" could be seen to have had a stabilising effect on the leftbank inner city's social structure when viewed as a whole. The source of Praga's delayed and inferior level of urban development would seem to stem from its situation on the wrong side of the Vistula.

Topographical conditions on the East Bank, although

Figure 2.13:  
Population distribution in  
East Bank Warsaw 1914



encouraging mediaeval settlement, were considerably less favourable than on the western shore, where the escarpment afforded protection from flooding and a panoramic view to the East. Arriving at one of the eastern railroad termini and taking a *droshky* carriage (or a horse-drawn omnibus, replaced only in 1908 by electric trams) to the centre, a perceptive visitor could not have failed to notice the leftbank, escarpment skyline of what he would have been likely to regard as the first truly "western"-looking city of any dimension in the Russian Empire (with the one major exception of Riga). The Russians once called Warsaw the Little Paris ("mal'ya Paryzh"); a metaphor alluding to the city's relative sophistication to people further from the East, and the evident cultural identification of Polish "educated" society with the West, rather than to its architectural or urban identity, although this too may have been significant. Whatever, that "mal'ya Paryzh" almost certainly did not include Praga, whose Russian Orthodox Church (1867) ostentatiously dwarfed from after 1888 by the privately-funded RC St. Florian's Church, hardly competed with the Main City's eastern-facing vista of (RC) religious temples, the ex-Royal Castle and former magnate palaces little spoiled by riverside factory chimneys and the inevitable, but isolated enclaves of multi-storey tenements (in which respect the tsarist ban on private property construction along the river front arguably proved quite fortuitous). (209)

While the overall proportion of wooden buildings in Praga had fallen dramatically - or rather had been swamped by later development - since the 1860s representing, in 1919, 45% of all buildings, it was still incomparably higher than on the West Bank (c. 5%). Even in 1919 half of Praga's

buildings consisted of groundfloor structures, even though it has been seen in Chapter 2 that more than a third of all developed properties contained in excess of 20 apartments and the mean calculation of flats (i.e. habitable and non-habitable premises) per property marginally exceed 20, thereby establishing the rightbank inner city's "barracks" quality (cf. Table 3).

The population of *arrondissement* XIV and XV had declined by some 17.5% between 1913 and 1919 (74,606 residents recorded in the property census). Tsarist state employees and a large part of the Russian civilian population had been evacuated in 1915, apparently vacating in the process nearly 2½ thousand flats (cf. Table 6<sup>a</sup> and cartogram 4<sup>c</sup>). Housing densities almost mirrored those of Powiśle and Wola inner-peripheral districts, although the mean recording of rooms in inhabitable flats was slightly greater (i.e. a 1.7 reading for *arrondissements* XIV and XV combined, falling, nevertheless, to 1.4 in Szmulowizna and 1.3 in Kamionek). The "proletarian" character of rightbank social geography was thus marked, even though relatively compact tenement building in Old Praga, the Konopaccyzna and in certain street blocks of the Szmulowizna had occurred mainly from the late-1880s. It is evident that a sub-tenement belt had evolved in these quarters: street blocks 357, 358, 360-'63, 408-'11, 413, 417, 421, 424 in Stara Praga; 374, 383, 385, 388-'90, 392-'95 in Konopaccyzna; 364-'66, 370, 401, 407 in Szmulowizna. Conditions in these and neighbouring blocks of smaller property groupings varied considerably, but in a significant proportion of the tenements of Old Praga, and to a lesser degree Konopaccyzna, 4-room apartments and lower housing densities indicated by mean calculations of 1 or 2 people to

a room in certain street blocks did prevail. Praga as such had its own, considerably more modest, bourgeois or "petty-bourgeois" citizens. However, the Szmulowizna, Kamionek, the back houses of Old Praga and the outer street blocks of the Konopacczynzna, backing onto large factory complexes, including the Warsaw Steel Foundry (evacuated before 1914 to the Russian interior), were, as they largely remain to this day, fundamentally working class quarters.

Calculating property size, apartment subdivisions and housing densities at street block scale has helped to confirm hypothetical similarities in urban physical form and social geography between Praga and leftbank inner-peripheral districts (Powiśle and Wola), which have been distinguished from the main tenement belt-study area with its inner core for separate investigation. The specific character of this East Bank sub-city, nevertheless, needs to be born continually in mind, surviving to our own times; even in relation to interwar urban growth in neighbouring rightbank districts (Saska Kępa, Grochów), as well as post-1945, planned development).

The first, and very modest, water service supply was opened for "Old" Praga in 1869; i.e. nearly 2 decades after the earliest public waterworks began operating in the Main City. The incomparably larger Lindley system, including a vast network of underground sewers, introduced in stages starting in 1883 for the West Bank, was not extended to the other side of the Vistula until 1906. Water supply, sewers, gas, electricity and other public services were extended from the Main City to Powiśle and Wola, if indeed at all, as well as to Mokotów with the same delays as their gradual and limited introduction in Praga, emphasising the considerable overall decline in living, as well as housing, standards as

one moved from the tenement belt into these peripheral districts. (210)

Wola Suburb  
(Plate VII<sup>c</sup>)

Wola was spared the destruction inflicted on Praga at the turn of the 18th. and 19th. centuries, but it too experienced a delayed and intensive urban explosion during the same period; i.e. from the mid-19th. century.

The village of Wielka Wola arose in the middle ages along an east-west running trade route, some 5.5 kilometres beyond a crossing over the Vistula. It became a royal parish village in the 14th. century, the original wooden church being replaced by a late-Baroque temple dedicated to St. Laurence in the 18th. century (next to the Russian Orthodox Cemetery). Ribbon development along the former trade route (Wolska High Street) leading from Warsaw became most intense at the city-end, near the later Wola Toll gates, particularly following the opening up in 1732 of the Saxon Axis. Operating for almost exactly 100 years, the customs wall, laid out under the direction of Marshal Lubomirski in 1770, was to define a border line between the Main City and Wola Suburb in the 19th. century. As an urban demarcation line it continued to mark the divide between the city and suburb until the Second World War. (211) Even though Wola, as a western extension of Mirów, and to a lesser degree Towarowa, Leszno and Okopowa districts, was to undergo large-scale urban growth from the mid-1800s, it was not to be fully integrated into the Mid-Town infrastructure

and tenement lay-out.

The setting up beyond the Lubomirski Walls from about 1869 of iron-smelting, machine-producing and a few textile factories, with later specialisations in chemical, cellulose and food processing branches, underlined Wola's increasing importance as a region of large-scale industrial location. By 1914 over 10% of Warsaw's industrial workforce was employed here. The older, smaller factories had been set up on Wolska, Okopowa or Przyokopowa streets; larger and more modern plants arose from the 1890s near the Vienna, Kalisz and Circular railroads south of Dworska (now Kasprzak) Street, such as the new Lilpop, Rau and Loewenstein Mechanical Works opened behind Kościelna (now Joseph Bem) Street, employing in 1913 1,900 people. (212)

A second divide, this time of Wola itself, arose with the district's partial incorporation into Warsaw City. "Municipal" Wola and "rural" Wola (*Wola pod cyrkułem - Wola pod gminą*) were terms employed by inhabitants and bureaucrats alike to avoid confusion. This division in itself was purely an administrative affair, although it did mean that the city-side of Wola received gas street lighting much earlier than the outer end. "Municipal" Wola was at least connected along its most important streets to the Lindley sewers and water supply systems, while the electric trams swung into their depot well before the administrative boundary (even then, tickets were too expensive for most workers, who usually lived near their work places). The 1919 Census Commission was unable to carry out detailed investigation of "rural" (i.e. Outer) Wola, hindering a comparison of the two sub-districts. Property development was quite dense as far as the circular railway line, thereafter breaking up into small cottages, wayside inns,



farmsteads and wooden-house ribbon development along main arterial roads (Wolska, Górczewska and Obozowa streets). Modest workers' housing had been put up near factories behind the main railway lines (e.g. Kościelna Street near the Lilpop and Co. Mechanical Works and along the prolongation of Pradzyńskiego Street). The combined population in 1913 of inner (c. 47,000) and outer (c. 76,000) Wola compared with that of Berlin's eastern industrial district of Lichtenberg (133,641 in 1910). This comparability in the number of inhabitants could hardly be said of the urban pattern, which in Wola's case was dominated, beyond the factory complexes, by low wooden building, small brick houses and free-standing or dispersed enclaves of 3- or 4-storey "barracks" properties, while in Lichtenberg consistent and quite regular multi-storey tenement housing had been unfolding since the 1880s (refer to comparative maps of selected urban centres in the supplement to Part III).

Wola's overwhelmingly proletarian character, and reference to the 1:2500 scale baseplan, suggest tenement house construction was even less advanced than in Powiśle and especially Praga. 2-storey workers' or artisans' houses have survived on Karolkowa Street, while not a single wooden house remains. Larger property developments were concentrated on or behind the Main City end of Wolska High Street (street blocks 151 and 153-'58), where even in 1919 between 110 and 240 residents were accommodated in properties of up to 50 1- or 2-room apartments. Housing densities would be expected to have been much higher before 1914, bearing in mind the overall population of Mirów municipal district had dropped during the war by around 20,000 people (allowing for alteration to administrative

boundaries in 1916). The laying off of factory workers during the 1914-'18 war would have effected Wola's inhabitants particularly severely. The combined population of inner Wola (lying within *arrondissements* III, V, VII and IV) and Koło (XIX) with Wola (XXII) suburban *arrondissements* has been estimated to have fallen from around 120,000 in 1913 to just 70,135 inhabitants in 1919 (excluding a small part of Ochota (XXIII) *arrondissement* which had been in Czyste parish prior to 1916 (cf. Fig. 1.7 and Tables 4 + 5). [a]

Sub-study quarters have been defined in relation to municipal administrative divisions operating both before 1916 and, with minor alterations, throughout the interwar period until their liquidation in 1951:

- 1) Wola in V (Okopowa) : street blocks 100-104
- 2) Wola in III (Leszno) : street blocks 63- 70
- 3) Wola in VII (Mirów) : street blocks 150-158
- 4) Wola in VI (Towarowa) : street blocks 123-127

(cf. Fig. 2.14)

An interesting workers' tenement colony of the kind which beyond isolated cases did not take shape in Warsaw before 1914, consisting of parallel housing blocks, a laundry house, children's care centre and a funeral parlour, raised in the 1890s and funded by the philanthropic banker Hipolit Wawelberg, stands to this day behind Górczewska Street.

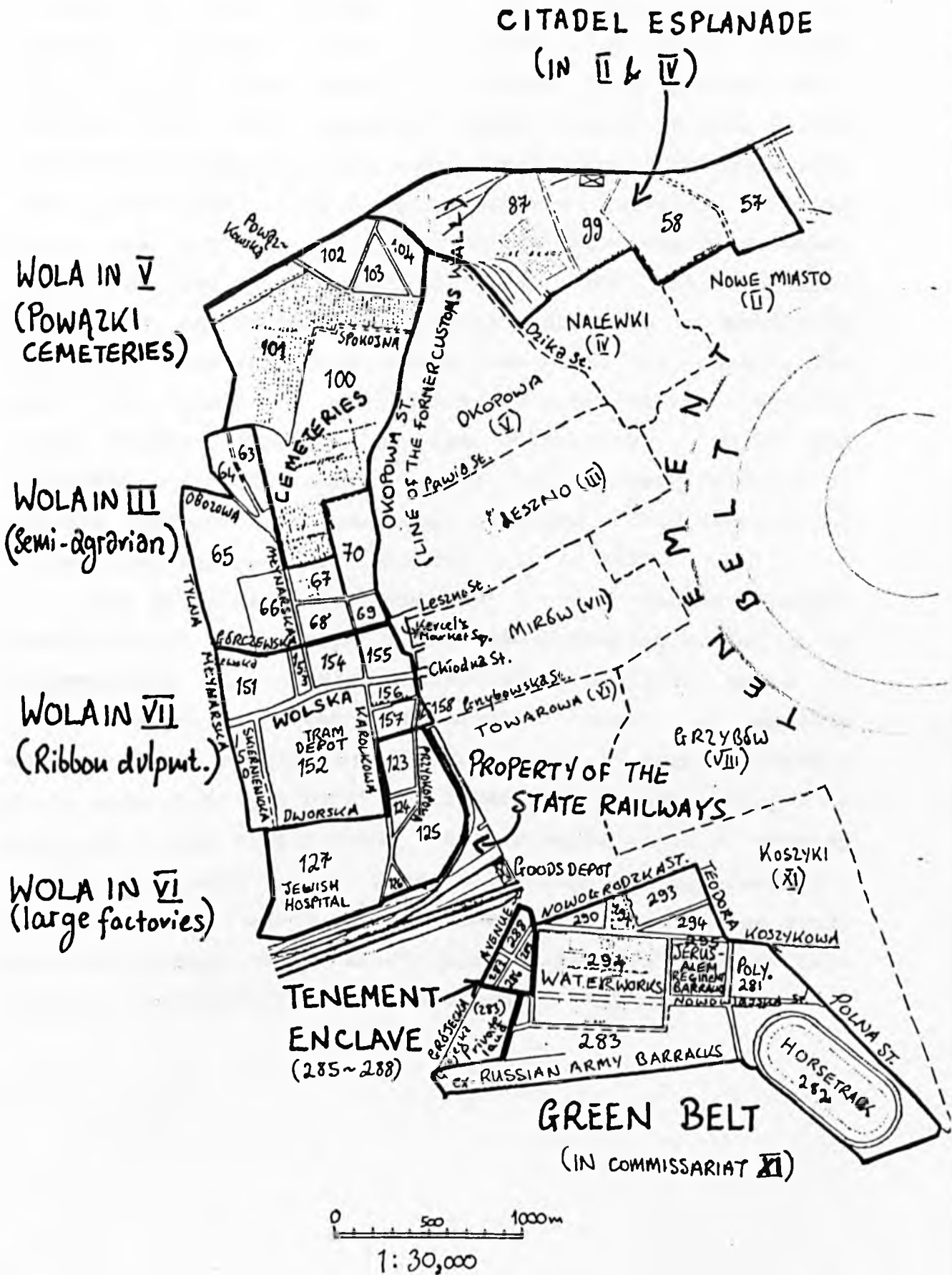
An isolated tenement enclave

Street blocks 285-'88 situated between the lines of Grójecka, Nowowiejska, Raszyńska and Towarowa streets,

Figure 2.14:

Inner-peripheral districts of northern, western and south-western Warsaw:

- North - former Fawory-Żoliborz
- West - Wola Suburb incorporated upto 1914
- South-West - tenement enclave in XI formerly in VI
- Green Belt and Mokotów Fields military terrain



represents an area outside the customs walls which had been subdivided into regular plots and intensively developed during the study period (cf. Fig. 2.14). Land registry numbers, ranging from no. 5076 to 6508, suggest parcellisation took place in stages from around 1875, although the most intensive phase clearly occurred around 1885 when 16 building plots were demarcated at the same time (nos. 5335-5351). Property registers initially refer to these new plots as lying "behind the Jerusalem Toll Gates" Only in registers compiled after 1887 are addresses stipulated on Daleka, Tarczyńska, Grójecka or Raszyńska streets, revealing that properties especially outside the main city quarters could exist for years before they were given street addresses by the authorities. Daleka and Tarczyńska streets would appear to have been laid-out at private rather than municipal expense. This territorial enclave was incorporated into the city in 1887.

The group of quite consistent 3- or 4- storey tenement construction took shape among manufacturing buildings or accommodated small-scale industrial production space in out-buildings. These tenements housed a solidly working-class population: 1- or at most 2- room apartments which even after the First World War were accommodating 3 or even more people to a room. This tenement enclave, growing up on the edge of a green belt area, has survived to a greater degree until modern times, providing a case study area of tenement construction outside the main tenement belt (refer to photographic documentation in Chapter 11).

## Failure to integrate inner-peripheral districts

Provisions were made at one point in the study period for the rational integration of Wola into the urban organism, but these plans were blocked by St. Petersburg; a result rather of its unpreparedness to provide financial support than active resistance. This plan was drawn up by the City Council in 1886, operating at that time under the beneficial leadership of a Russian mayor, Socrates Starinkiyevich (Pol. Sokrates Starynkiewicz). Based on projects already prepared by the non-existent Regulation Committee (refer back to Towarowa tenement district (8) in Chapter 6), the city administration intended to incorporate Wola Suburb together with Ochota, part of Mokotów, Sielce as well as "New" Praga. Apart from the rightbank incorporations, endorsed by the tsarist authorities in 1889, the most important aspect of the so-called Regulation Plan was the envisaged incorporation of Wola stretching between the defunct Lubomirski Walls (Towarowa-Okopowa streets) and the western section of a circular railway line, forming part of the railroad junction system laid out after 1873. A regular network of intersecting north-south and east-west-running streets was projected for Wola excluding the Powazki RC, Jewish and Protestant cemeteries which had been previously incorporated in 1875. The City did not have the necessary financial means to buy up the entire area of Wola (c. 500 hectares); instead it bought up pieces of territory bit by bit (1875, 1889, 1900, 1910). By the end of the century Warsaw's western boundary had been extended as far as Tylna ("hinter") Młynarska Street, and by 1914 the city had brought within its boundaries about two-thirds of the area it had originally intended to incorporate in one go. Apart

[na]

from meagre westward prolongations of Żytnia and Krochmalna streets beyond the former customs walls, and the regulating of some of the preexisting streets, no attempt was made to implement the rational road network for Wola. Extending the municipal boundaries as far as Tylna Młynarska did at least permit the laying-out of a small residential area, but beyond defining a small square, some side streets and sub-parcelling the land, this undertaking did not come to much before the war broke out; to this day Opole Square (plac Opolski) awaits development (cf. Fig. 2.15).

Elsewhere in Wola, the new Orthodox Jewish Hospital (1894-1907, arch. A. Goebel) on Dworksa Street, together with the second municipal gasworks, opened somewhat ironically in 1888, were to remain outside the city boundaries until 1916. The RC parish church for Wola also stood beyond the inner city limits; a second pseudo Gothic monstrosity echoing Praga's St. Florian's, designed in the so-called Baltic-Vistula Gothic style and more reminiscent of Lichtenberg than a Warsaw Suburb.

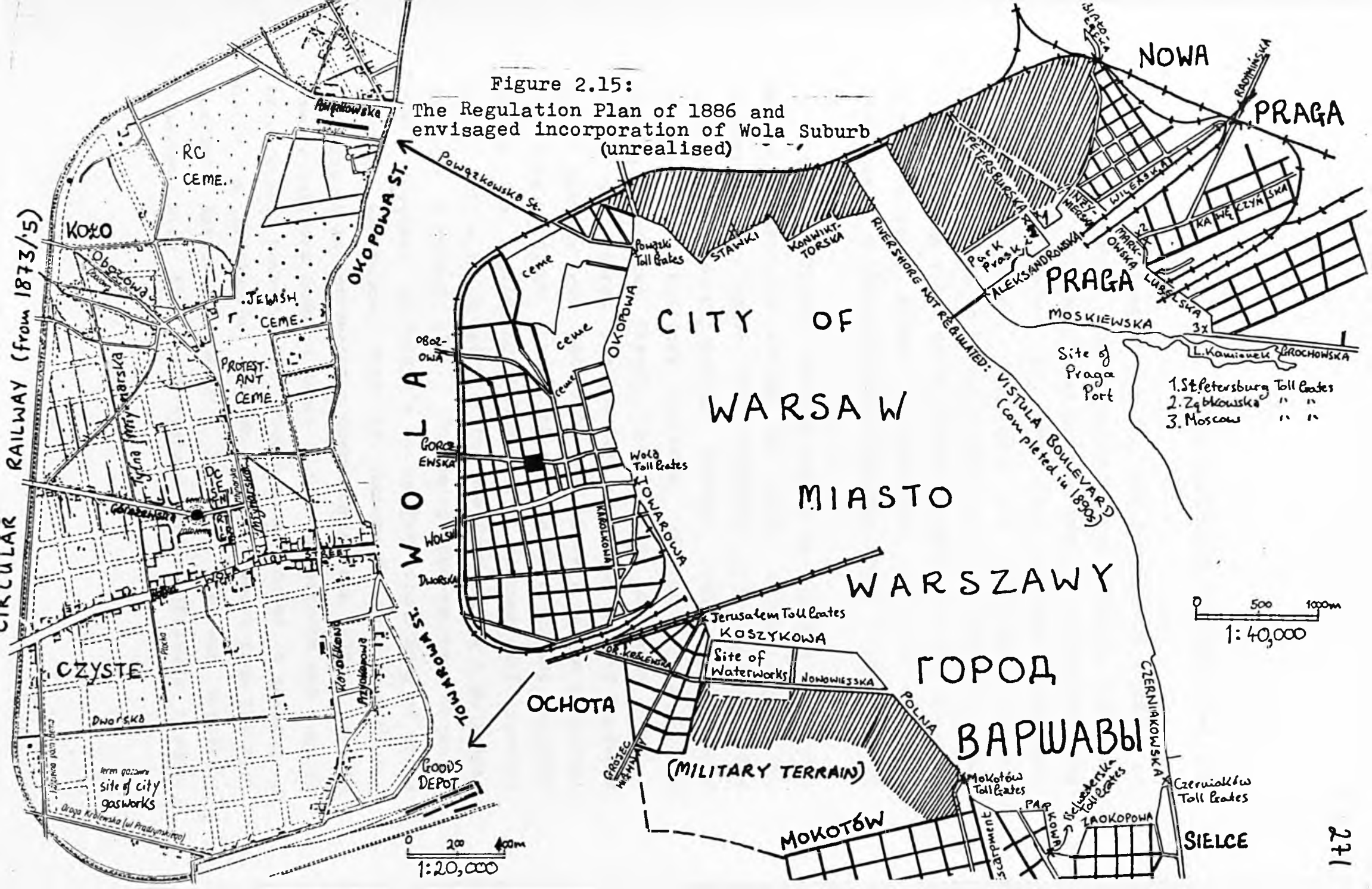
Even if it had proved possible to incorporate the entire Wola Suburb in 1886, could the City Council have afforded the great cost of laying out the street network (which it noticeably failed to do in the Szmulowizna and Kamionek quarters of new Praga)? Even if the streets had been created, how would the ensuing property development have looked? Would it have proven any different from the urban form unfolding in Praga and Powiśle until 1914 (i.e. a chaotic mixture of multi-storey, small-apartment tenements, unsegregated industrial location, and low-level wooden housing)? It is highly probable that had developers been attracted to Wola as an area of lucrative gains from residential development, as opposed to lucrative gains from

manufacturing and production, the urban profile might well have taken a different shape in Wola after 1886 than it did.

Following its administrative aggrandisement in 1859, Paris's urban expansion was directed towards 9 newly-created or expanded outer *arrondissements* (12th.-20th.). Berlin's later 19th. century spatial development, following Hobrecht's partially-realised peripheral street network, reached out far beyond its 18th. century customs wall, evolving an inner ring of tenement districts (Kreuzberg-Luisenstadt, Friedrichshain, Premzlauer Berg, Wedding, Moabit). A second ring of tenement districts arose from the 1880s encompassing Schöneberg, Charlottenberg, Neukölln, Wilmersdorf, as well as parts of Lichtenberg, Tempelhof, Friedenau, Weissensee, etc., even though these suburban areas were not to be incorporated into a *Grosser Berlin* until 1920 (cf. "Paris" and "Berlin" in the supplement to Part III).

In Warsaw the lack of integrated urban development in inner-peripheral districts incorporated prior to 1914 (Powiśle, Praga, part of Wola), as well as "Outer" Wola, Mokotów, Ochota and other suburban areas brought under municipal jurisdictions in 1916, reflects the failure to establish an urban infrastructure beyond the pre-1870 customs wall where the tenement belt and its inner urban core took shape. (213)







### The eradicated Northern District

While central tsarist policy was just one in a number of factors arresting the integration of Powiśle, Praga and Wola, St. Petersburg may be held entirely responsible for the blocking before at least 1916 of Warsaw's northward spatial development. Not only did the Russian Citadel, perversely named in honour of the reformist tsar, Alexander I become the focal point from the 1830s of a vast military zone completely closed to municipal as well as private development; a whole district was demolished to make way for it.

Zoliborz-Fawory had arisen to the north of mediaeval Warsaw, especially during the 18th. century after the conducting of August II's Northern, or Foot Guards' Axis (Zakroczymska Street-Guards' Avenue), leading to a large ensemble of military barracks. Zoliborz - a Polish rendition of the French "joli bord" (pleasant shore) - became a favoured residential area for some of Warsaw's first bankers and manufacturers, as well as the nobility. The City's first identifiable villa district was included within the limits of Lubomirski's customs wall, forming after 1791 a larger part of the New Town-Northern municipal district ("cyrkuł II"). Following the economic crash of 1792, provoked by Poland's Second Partition, many of these palatial residences were left abandoned, while town houses were put up in increasing numbers during the 1820s. In 1830 Fawory-Zoliborz counted about 10,000 inhabitants and some 43 brick/stone houses, 128 wooden manor houses, 6 palaces, 3 mills, a brickworks, parish church, apart from the Foot Guards' Barracks complex. As such, it was evolving, together with the North-Western/Western (Nalewki, Leszno,

Mirów) and South-Central (Nowy Świat) quarters, into a densely built-up inner city district; urbanised to a considerably greater extent at that time, for example, than the combined southern quarters later defined by Koszyki/Pomological, Aleksandryjska and Ujazdów *arrondissements* (214)

The November Uprising of 1830 turned out to be a belated, prolonged and quintessentially Polish rerun of the tragic Decembrists' rebellion of 1826 in St. Petersburg. The Uprising broke out in Warsaw, it was from Warsaw that a half-hearted war was conducted with the Russian Army (the aristocrats and bureaucratic "Whites" betraying a profound terror of the "Jacobin tendencies" of a progressive "Red" element), and it was Warsaw which stood to the bitter end. It was not the first, and most certainly would not be the last time that Warsaw would become a symbol of (desperate) Polish patriotism and, more significantly in the long run, would be treated by invincibly powerful occupying forces - including Hitler's Nazis some 100 years later - as the nerve centre of Polish resistance to their rule. Would the Russians have built such a citadel after 1832 if there had not been a calamitous insurrection in 1830? Odessa, Helsinki and even Łódź were fortunate enough to escape such urban disasters, even though their inhabitants were as overwhelmingly non-Russian as those of Warsaw. (215)

Following the 1830 Uprising's defeat, the Russians constructed with remarkable speed an enormous citadel in Warsaw where a permanent military garrison could be maintained. On visiting the city for the first time since the Uprising, Tsar Nicholas I announced to a gathering of Polish aristocrats :

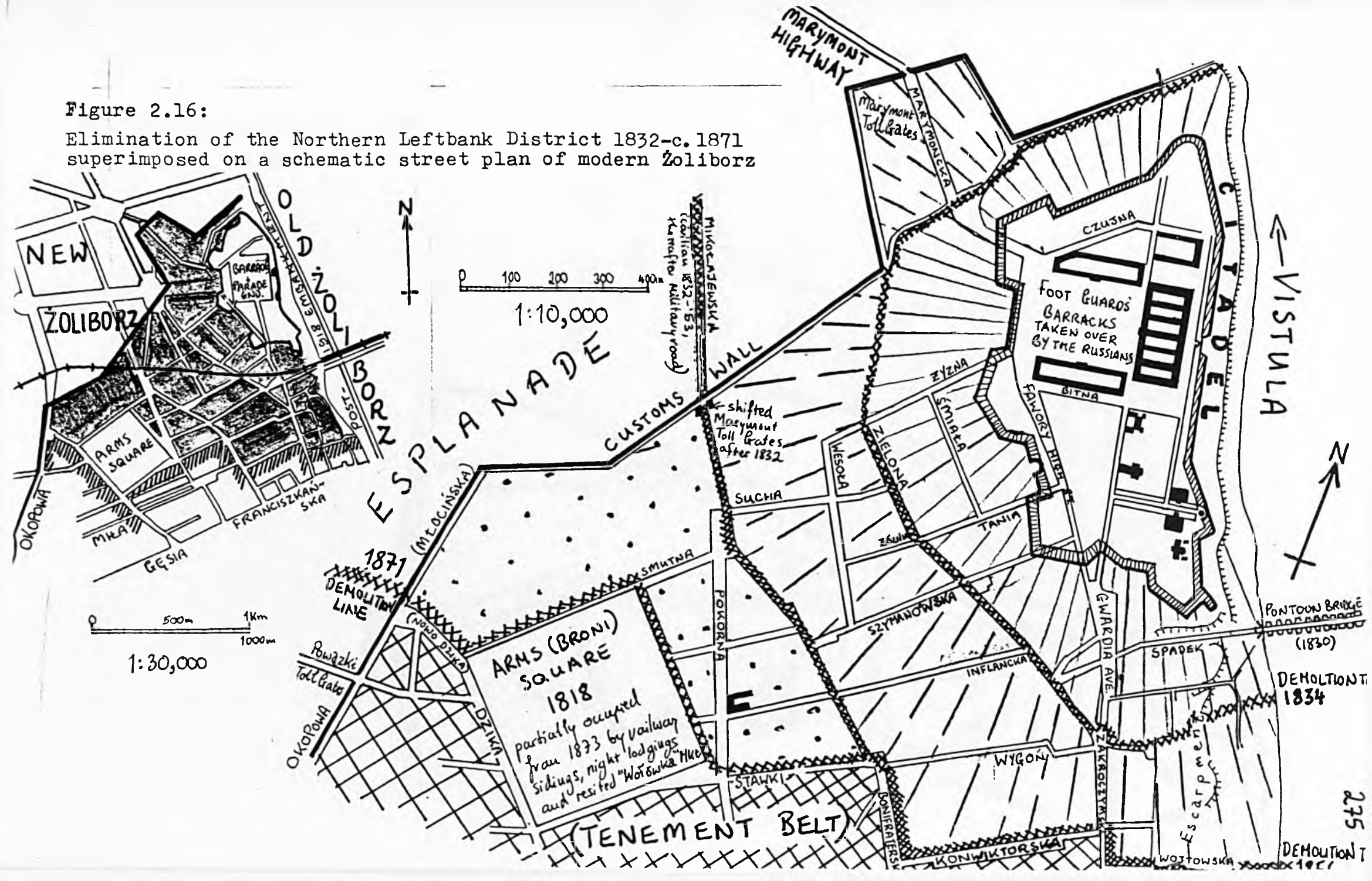
If you are going to persist with your dreams of separate nationhood, of an independent Poland and all those grand illusions, you will bring upon yourselves great misfortunes. I ordered the raising here of the Alexander Citadel and I swear to you the slightest trouble will be enough for me to have this city bombarded; I shall destroy Warsaw and it certainly will not be I who rebuilds it." (216)

A certain general Ivan Den had suggested to his tsar the raising of a fort on Saxon Square (he was also eager to have the incompleated Grand Theatre turned into a Russian Orthodox cathedral), but Nicholas presumably was unimpressed by such extreme measures. The city centre's fortunes proved Zoliborz-Fawory's catastrophe.

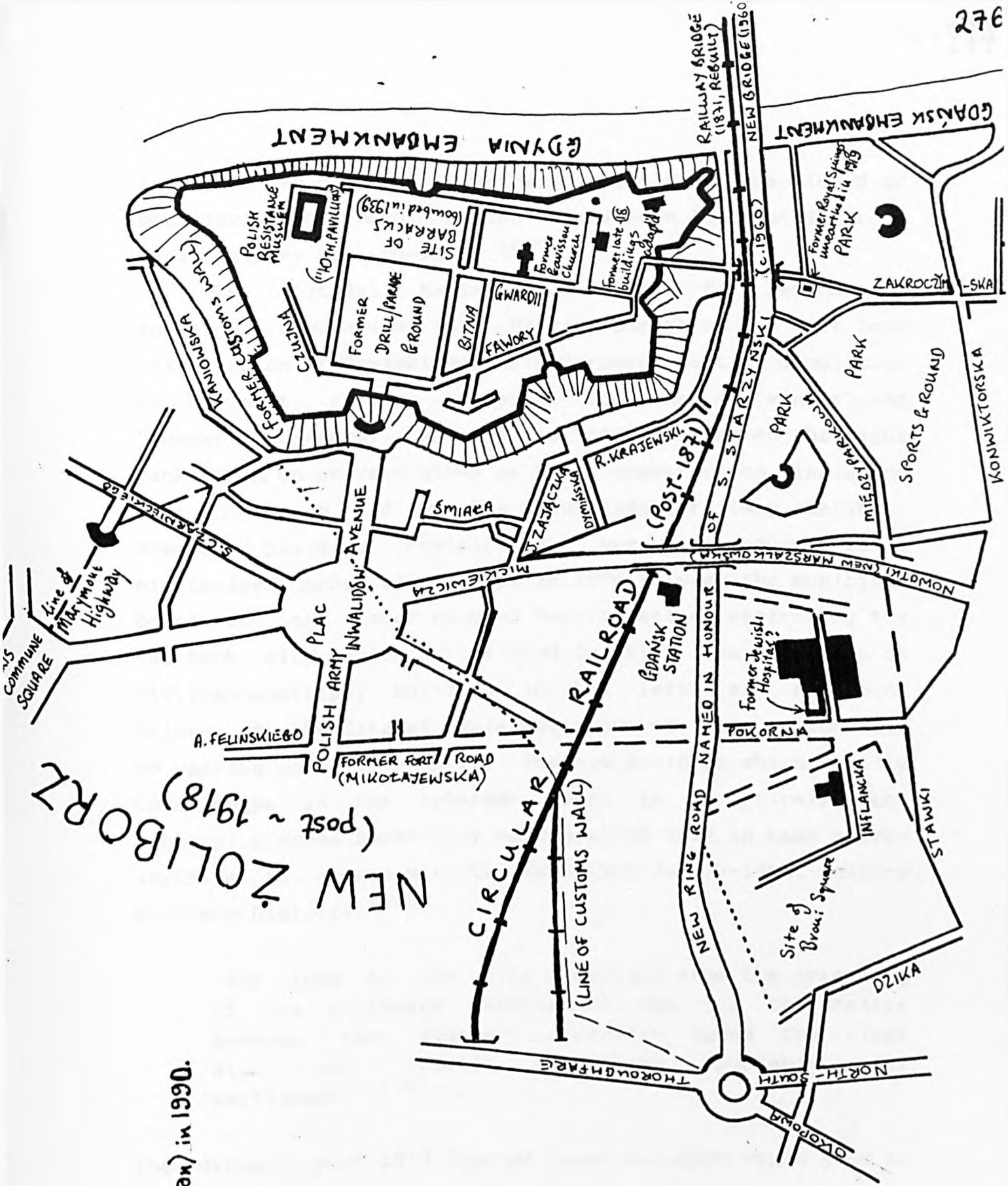
The first phase in the militarisation of northern Warsaw (1832-'34) involved enlarging the Foot Guard's Barracks, laying out the Citadel and demolishing property in the immediate environs. The second phase - directly resulting from Nicholas's paranoia that the Spring of Nations would ignite his Polish subjects - followed on after 1848, intensified during the Crimean War (1853-'56), and was considerably more destructive in its effects. By creating a militarised zone, or esplanade, around the Citadel, expanded to embrace even the Praga side of the river, the entire northern district was ripped down; i.e. as far south as the east-west line defined by Zakatna, Wojtowska, Konwiktorska and Stawki streets (cf. Fig. 2.16). In sum, more than 300 private and municipally-owned building plots were taken over by the tsarist authorities in Zoliborz-Fawory and removed from the land registers (nos. 1827-'54, 1865-'7, 1892-1910, 1929-2159, 2168-'75B, 2182-'9, 2214-'31, 2525-'41, 3121-'40). In Praga's Gołędzinów quarter the damage

Figure 2.16:

Elimination of the Northern Leftbank District 1832-c.1871 superimposed on a schematic street plan of modern Żoliborz



# ZOLIBORZ (inner urban) in 1990. 1 : 10,000



inflicted was also extensive, where 51 plots of developed or semi-developed, mainly wooden houses were liquidated (Praga land registry nos. 35-145A). (217)

The Citadel Esplanade stretched far beyond the municipal boundaries into Młociny parish on the left bank (devastation of Powązki Romantic Gardens, partial demolition of Marymont, raising of great complexes of "winter" and "summer" barracks), as well as Bródno parish on the right bank (ban on private stone or brick construction, including the RC church and even the Nadwiślański railway station). Similar building restrictions were introduced to a militarised zone, established in 1878 between the municipal boundaries and inner ring of fortifications encircling the leftbank city, which were lifted in 1911. The total ban on civilian-municipal building in the left- and rightbank halves of the Citadel Esplanade, however, were to continue to operate until after 1918. The new Żoliborz which rapidly took shape in the interwar years is an entirely 20th. century, planned inner city suburb which only in name shares anything in common with the late-18th./early-19th. century Northern District. (218)

"The loss to the city resulting from the arresting of its northward development was all the greater because the southern direction above the river did not create conditions suitable for settlement." (219)

The dynamic post-1918 rise of (new) Żoliborz would seem to endorse this statement. The Vistula escarpment's northern extension from the Old Town almost as far as Marymont follows a close parallel line to the river, thus encouraging from the middle ages the evolution of a continuous line of

settlement from the original New Town suburb through Zoliborz-Fawory (formerly Pólków village), Kaskada, Potok, Ruda and Marymont villages as far as Bielany Woods. In 1820 the Marymont Chausee was extended from the customs wall and new Marymont Toll Gates as a northern arterial road leading past Marymont and Młociny to Nowy Dwór Mazowiecki (today the main exit route to Gdańsk). This northern growth line was severed by the Citadel after 1832 and was not reconnected with the city until after 1916. Warsaw in the 19th. century is said to have developed with its back to the Vistula<sup>(220)</sup>; it could be argued that simultaneously it expanded in the wrong direction.

The southern green belt and military zone

The beneficial planning of the Regulation Committee disbanded in 1870 may be also discerned in a green belt area set aside for municipal and state public buildings on the inner city's southern fringes (street blocks nos. 281-284, 290, 291 and 293-295 in Koszyki (XI) *arrondissement* (cf. Fig. 2.14). The waterworks, occupying an area of 35 hectares (street block 284), incorporating a water tower, pumping station, water basins, collectors and filters, were opened in 1886. Designed by a German of English descent, William Lindley with his son and initiated by Mayor Starinkyevich, the new sewer and water supply system became a major factor in the shaping of Warsaw's inner city tenement belt). The remarkably detailed 1:200 and 1:250 plans worked out for inner-central leftbank Warsaw between c. 1883 and 1897 under Lindley the younger's guidance have

become a vital source of cartographic information relating to the city's urban transition at this time, (referred to in Chapters 10, 11 and 12).<sup>(221)</sup>

The new Christ Child Hospital complex (street blocks nos. 290 and 293), here moved from its old, city centre site on Warecki Square (new properties with land registry nos. 6361, 6362 etc. were designated in 1900-'1; cf. "An Inventory of Warsaw Properties" in the annex to Part III). The Warsaw Politechnic (street block no. 281) was raised in 1899-1900 to be extended in stages thereafter. A horsetrack, greatly enlarged in the 1890s, including a (wooden!) grandstand had been operating on this site since the early-19th. century. The Mokotów Fields had begun to serve as a military training ground after 1818, to be taken over from the 1830s by tsarist forces and thereafter greatly expanded, thereby separating to a large degree Mokotów suburb from the Main City. Barracks were set up in the immediate vicinity (street blocks 295 and 283). In 1908 Warsaw's first air strip was opened, serving civilian aeronautical enthusiasts as well as military purposes.<sup>(222)</sup>

This southern green belt was interrupted by a wall of 5-, 6- or 7-storey, Art Nouveau-Façadal or early-modernist tenements along Polna Street, but found its continuation beyond the Mokotów Circus in Łazienki Park as well as yet more tsarist military property (street blocks 202, 220 and 222 in Aleksandryjska-Ujazdów tenement belt district 10).

The woodlands extending below the escarpment had originally belonged to the ducal princes of Mazovia, who had built their first residence not in Warsaw but at Ujazdów. The 17th. century magnate, Stanisław Lubomirski had raised a bath house which became an exclusive brothel for the visiting and local elite. These baths (Łazienki) lent the



later public park its name; they were also used as a central constructional element in Stanisław Augustus's famous "Island Palace" summer residence. From 1817 the palace and rebuilt Belvedere together with their parklands were taken over by the Russians.

The Ujazdów Castle, site of the Mazovian ducal residence, was adapted as early as 1809 into a military hospital, occupied by the Russian armed forces and subsequently enlarged for their use. Another Russian Orthodox church was put up behind Na Rozdrożu Square in the later-1890s, closing the eastern perspective of Stanisław Augustus's East-West Axis (Nowowiejska-Pradzyńska streets) and no doubt lending a specific atmosphere to the area until its demolition after 1923. (223)

## Chapter 8

## URBANISATION AND BUILDING TYPES IN THE OUTER CITY

Mokotów outer tenement district  
(Plate VII<sup>d</sup>)

South of the Old Town, the escarpment becomes increasingly separated from the Vistula, cutting across the Royal Route at the Belvedere palace (Belwederska Street extension of Ujazdów Avenue), following thereafter a southerly direction about 5 kilometres west of the river's upstream course. Conditions for development were, inevitably, less favourable below than above the escarpment, in addition being seriously undermined by a post-1864 decree preventing non-peasants from owning land in extensive parts of Wilanów and (rightbank) Wawer "rural" parishes (cf. section "The outer city in relation to the study area" in Chapter 3). No such restrictions were in force in Mokotów parish, while topographical conditions, above the escarpment, although far removed from the river, encouraged extensive building already in the 19th. century. The aristocracy had begun to raise palatial residences and suburban villas along the escarpment in the later-1700s, while extensive parkland and wooded terrain belonging to the Polish monarchs or magnates followed the southern, river-level prolongation of the Royal Route as far as Sobieski's former summer residence at Wilanów. Mokotów village with its parish church lay some 2 kilometres south of the post-1770 customs wall (Mokotów Circus and Toll Gates), but ribbon development along the southern highway from Warsaw was most intense at the city

end, creating a situation analogous to that of Wola village and Wola Suburb connected by the western highway of Wolska Street. The original high road led from Mokotów northwards, via Mokotowska Street to Three Crosses Square, but was gradually shifted eastwards to be replaced by the Mokotów Chaussee, also known as the Lublin Highway, renamed by the Russians "Nowoaleksandryjska", from the official tsarist name for the Polish town of Puławy (Novoaleksandriysk).

Warsaw's earliest era of large-scale urban expansion in the late-18th. century (by 1792 115,000 inhabitants) led to the setting up of brickworks in Mokotów where plenteous natural deposits of alluvial loam could be locally extracted (one such site was to be adapted in the early-20th. century into an artificial pond on the escarpment side of Puławska Street). Building booms in Warsaw during the 1860s and 1870s revitalised this local industry; in 1879 7 brickworks were employing 314 people and Mokotów was producing about a quarter of all Warsaw's and its region's needs. Decline rapidly set in after 1880 when the city experienced a major building slump. (224)

A significant phenomenon in the 19th. century evolution of Warsaw's tenement districts has been observed in Koszyki and larger parts of the western inner city to have been connected with the location of industry during earlier phases of development. The "Welonin Colony" (*Kolonia Welonin*), consisting of a metal smelting works and administrative premises, was raised on Chocimska Street in Mokotów not long after 1900, having moved from its former site on Koszykowa Street in Koszyki district (founded there in 1872). Heavy taxation, particularly of industrial enterprises, within the municipal administrative area forced this small firm to relocate in the suburbs where ground

rents, rates etc. were evidently lower. (225)

The relocation of old or setting up of new industrial plants in the outer city was proving by this time an increasingly prevalent trend; especially in Wola (in Czyste parish), Praga and, to a lesser extent the rightbank suburbs of Targówek ("Fabryczny"), Nowe Bródno and Pelcowizna where optimal railway transport facilities were immediately at hand. The aristocratic traditions of Mokotów, its proximity to the middle/upper-class residential districts of Warsaw's southern tenement belt, as well as the lack of convenient railway communication do not seem to have favoured larger scale industrial location of the kind taking shape in Wola. The small brickworks fell into decline in the 1880s to be replaced, when the building boom reasserted itself in Warsaw, by considerably larger firms established further out from the built-up area (e.g. Dąbrowska Wilanowska, opened in 1908 which produced annually 7 million bricks upto 1914). A number of metallurgical plants was set up in Mokotów above the escarpment, but these, like the Welonin Colony, employed under 100 workers. Larger metallurgical, chemical, textile and paper-processing plants were concentrated after c. 1900 in Sielce district; Mokotów's own lower town analogy to the Main City's district of Powiśle situated below the escarpment. (226) Even including Sielce, only 3,638 industrial employees were recorded in Mokotów parish before 1914, although the overall number of inhabitants must have exceeded 30,000 (cf. Table 5 and "Population densities in 1913 and 1919" section of Chapter 3).

Accounting for 4.2% of Warsaw's industrial workforce in 1913/1914, it would seem that Mokotów's social structure contrasted significantly with that of the essentially proletarian inner-peripheral districts of Wola, Praga and

Powiśle, employing in sum between one-third and half of the workforce (it is difficult to draw a dividing line between Wola-Suburb and the western tenement belt districts, since the former had been partially incorporated before 1916 into *cyrkuł* municipal districts V, III, VII, and VI; in addition it may be presumed that many employees of factories located in the western and other-western tenement districts - representing according to W. Pruss a colossal 45% of the workforce even in 1913/1914 - commuted by foot from nearby homes beyond the former customs wall).<sup>(227)</sup> It is thus contended; bearing in mind a larger number of Mokotów parish's industrial proletariat worked and lived in Sielce (7,637 inhabitants in 1919 than "Upper" ("Górny") Mokotów (19,897 inhabitants in 1919), had become even before its incorporation in 1916 a southern assimilation area for Warsaw's tenement belt.

In 1919 the Census Commission did not succeed in collecting data for suburban *arrondissements* of the detail and precision originally intended, and of which it had been possible to compile for inner *arrondissements* I-XV (cf. "The Suburban periphery" section of Chapter 1A). Demographic and property statistics available from 1919 for Mokotów relate only to the post-1916 municipal district; no data is available at street block scale. This lack of precisely-recorded statistical information for an expansive suburban district of more than 1100 hectares inevitably complicates the establishing of property sizes, apartment subdivisions and housing densities in Mokotów's evolving tenement quarter; a relatively small area of around 180 hectares (cf. Fig. 2.17). It may be reasonably supposed, relating property statistics to cartographic evidence, that the overwhelming majority of 114 "barracks" properties, as

well as most of the 163 "medium-sized" houses recorded in Mokotów *arrondissement* (XVI), were concentrated in this area of intensive housing development, defined by Rakowiecka-Wołoska streets, an ex-military road following the inner line of fortifications (Racławicka Street), the southern extension of Nowoaleksandryjska/Puławska High Street (southerly ribbon development) and the Vistula escarpment. Some smaller middle-sized houses (4-10 apartments) would be expected to have arisen in peripheral hamlets and colonies (Wyględów - formerly in Pruszków parish - Henryków, Wierzbno, Królikarnia palace estate etc), where most 1-, 2- or 3-apartment, "small" houses or cottages would have also stood, apart from a number of dispersed farmsteads or larger agrarian estates (cf. Table 3 in Chapter 2).

An additional source exists in summary statistics compiled for the rural parishes following their incorporation or partial incorporation in 1916, although in this case little or no allowance was made for separate sub-urban or rural communication within a given parish; e.g. between Koło, (outer) Wola, Czyste and Ochota or between "Upper" Mokotów and Sielce. Hence 964 property or real estate divisions were recorded in Mokotów parish, 48 factories, including small manufacturing businesses, and significantly, 34,315 inhabitants; i.e. almost 10,000 greater than had been recorded in the parish register in 1913. The 1916 survey was able to very broadly stipulate that 20,000 of the parish's inhabitants, while living in Mokotów, nevertheless worked in Warsaw City. A majority of these commuters may have been artisans or domestic, daytime servants, but they probably also included bureaucrats and other white collar workers. (228)

Mokotów's exclusion from the municipal area throughout

the 1864-1914 period under investigation means the urban process unfolding at this time was largely undocumented. Property directories from as late as 1930 reveal the system of land registration in most parts of the former rural parishes, including Mokotów, was quite separate from that of Warsaw City. Rather than operating in accordance with a broadly spatial or chronologically-organised number system, identification was based on landownership (e.g. "Brzożanka Villa", "Mokotów estate"), rural community ("Mokotów District", "Henryków", "New Colony") or even localised land-usage (e.g. "Orchard" A, B, C, D, etc.), thus revealing the rural system of administration.<sup>(229)</sup> Short newspaper articles from the study period shed a great deal of light on the general processes at work in this suburban area by the late-1890s:

High rents in Warsaw apartments have encouraged many companies to put up houses beyond the municipal boundaries. The greatest building activity can be observed in Sielce and Mokotów" (*BUILDING NEWS*, 1898)

"The suburbs of Warsaw behind the Mokotów, Jerusalem and Wola toll gates are in a state of constant building construction; because they nevertheless lie within the" (Russian military) "fortified zone, where no brick or stone walls may be raised, landowners have presented a petition to the" (municipal) "authorities asking permission to put up brick buildings within the limits of at least one verst" (i.e. 3,500 feet) "outside the municipal boundaries."

(*BUILDING ACTIVITY BEYOND THE CITY*, 1898)

It would seem such a petition achieved the desired effect, for in the same year the City Council was making its own



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appeal to the next level in the bureaucratic hierarchy:

"The City Council has made its request to the gubernia government" (i.e. of the Vistula Provinces) "that, in view of the most probable future incorporation of suburban quarters such as Mokotów and Wola, the authorities, if they wish to avoid incalculable and unnecessary costs in the future, might be willing to consider all questions concerning the regulation of streets in these regions, the raising of new houses, laying out of new streets etc. in cooperation with the City Council. The Council's main task today will be to ensure the streets will be given a width of at least 10 sażnie." (i.e. c. 20 metres).

*(THE REGULATION OF STREETS IN SUBURBAN AREAS, 1898) (230)*

A network of rationally-planned streets was laid out in Mokotów from the turn of the 19th. and 20th. centuries. Judging from its elongated, westerly-running street plan, this new district lay largely within a zone roughly 1 kilometre wide extended beyond the southern and western municipal boundaries, in which buildings of brick and other permanent, inflammable materials must have been tolerated by the authorities even before the inner ring of fortifications - some 3 kilometres beyond Warsaw City - were to be closed in 1909-'11. Subparcellisation, and, what is more, property development in this part of Mokotów parish was already well-advanced by 1914. The failure of such rational street planning and property construction in Wola - the inner, incorporated area, as well as its outer urban extension - must lie in its industrial functions and proletarian character, which seriously undermined coherent housing development in this period of laissez-faire capitalism. Wola and Mokotów were thus evolving contrasting forms of

urban build and social structure: overcrowded, in places exclusively wooden housing and a marked absence of consistent multi-storey tenement building were typical of Wola; in Mokotów property construction was beginning to take on the shape, appearance and in all likelihood the kind of housing densities already observed in Koszyki, Aleksandryjska and Ujazdów tenement belt districts.

Moves to integrate this suburban district into the Main City were evidently slow and dogged by financial problems. The City Council, not surprisingly, was unwilling to take direct responsibility for providing public facilities, pressurised as it was with its hopelessly limited annual budget to ensure such services for the actual City of Warsaw. The financial situation in the neighbouring rural parishes was even worse. Mokotów parish possessed no property of its own; the village administrator, or *soltys* would have functioned from his own house. In 1916 Czyste parish, for example, owed the Berlin Allgemeine Elektrizitätsgesellschaft (AEG) 10,000 roubles for its electricity power station and Warsaw City Council 13,320 roubles. (231)

"Under the preceding parish governor provision was made for gas lighting in Mokotów and Sielce at an annual cost of 3000 roubles while it was also intended to lay pavements over the gutters. The population of this area, exceeding 20,000 inhabitants, can" (could it?) "afford such a cost. Unfortunately, the inefficiency of parish administration is the main reason why this suburb in every respect is most disadvantaged:" (presumably in relation to Warsaw City, for the situation in Mokotów-Sielce at this time was no worse than in other suburban parishes).

(September 1901)

Lighting did eventually come to Mokotów, as it had also come to the built-up and considerably more populous areas of Czyste parish, somewhat later than it had been established in the Main City. Mokotów's own electrical power station was opened in 1908 on Sandomierska Street at the cost, significantly, of its own inhabitants and just 5 years later than Warsaw's main power station on the Vistula Embankment in Powiśle. The building was carried out and the installations provided by Siemens-Schuckert, also of Berlin, at a cost of 30,000 roubles. The Lindley water supply system and drains were advanced after 1900 to Nowoaleksandryjska and Rakowiecka streets, thereby connecting many larger properties in Mokotów with the Warsaw system.

In the meantime, not only the rural character of Mokotów, but also its social structure was undergoing transformation. The gradual demise of peasant landownership, replaced inevitably by property speculators and other forms of private investment, was already underway in May 1902 when a Warsaw daily reported the following:

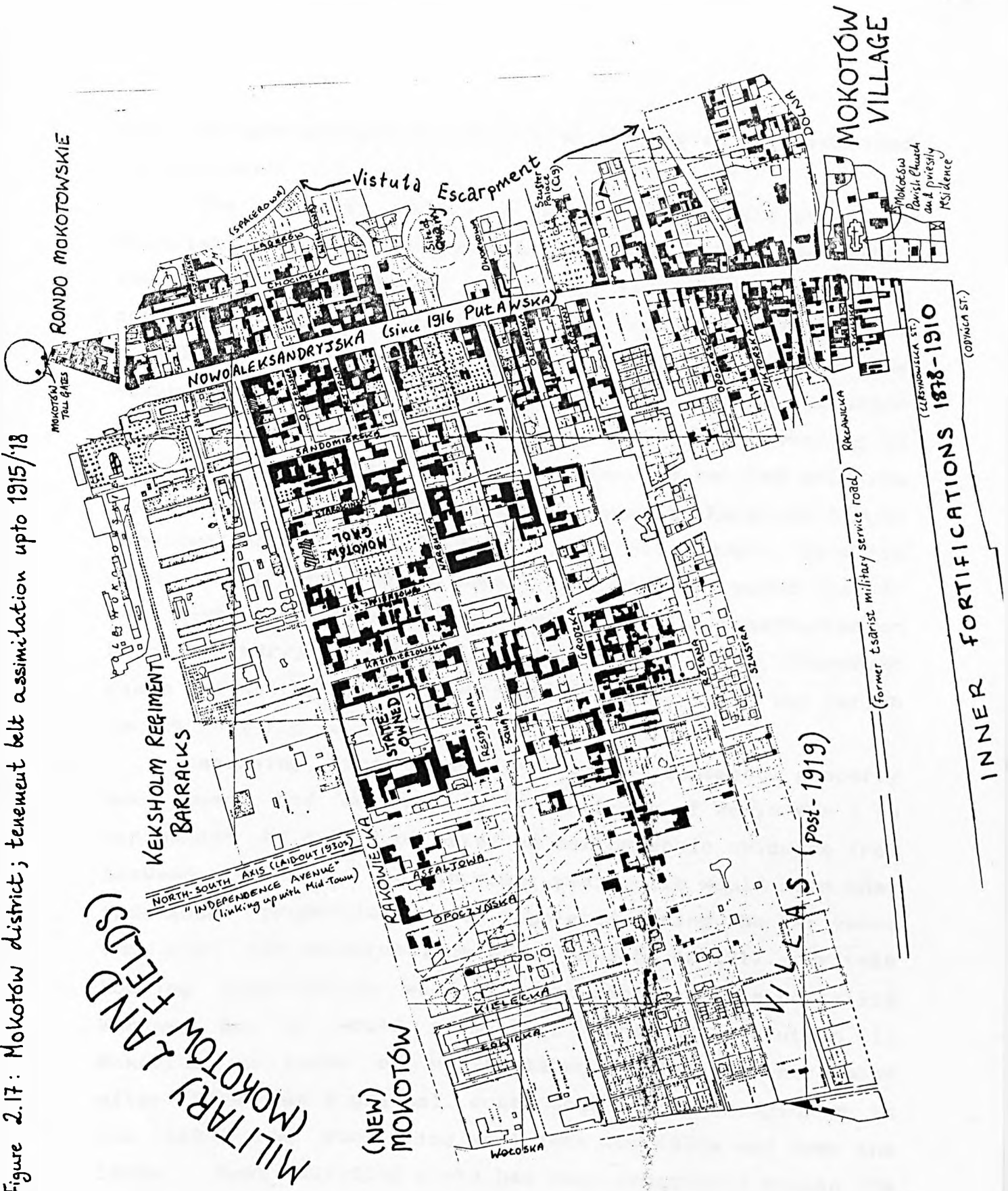
"On Friday 16th. of this month at 4 o'clock in the afternoon, in the home of Mr. Bereski, a house owner in Mokotów, there will be a meeting of Mokotów citizens in connection with the following matters:

- 1) -changing the name of Mokotów's high street to New (Nowo) Marszałkowska;
- 2) signing a declaration by all house owners that they will not rent rooms to immoral women;
- 3) attempts to persuade the relevant authorities to lay sewers between the Mokotów Toll Gates and the Leńniewski heirs' property (on Nowoaleksandryjska/Nowo-Marszałkowska Street);
4. the question of incorporating Mokotów into Warsaw;

- 5) lighting main streets with gas lamps;
- 6) the idea of maintaining nighttime doorkeepers;
- 7) to try to convince the authorities at least 2 delegates chosen by Mokotów citizens should have the right to vote in the parish council on the grounds that until now all owners of 6 morgs" (i.e. c. 3.5 hectares)" of land and paying an annual tax of 10 roubles are represented in the said council while numerous house owners, paying annually several hundred roubles in taxes, do not even have a say in the way the parish budget is spent." (232)

Calculations of property size based on figures recorded for the entire 16th *arrondissement* cannot be expected to accurately reflect the extent of property development in Mokotów's evolving tenement quarter, accounting for about one sixth of the overall hectaral area. Dividing the total number of properties - which included a large number of semi-rural cottages and small town houses, apart from the "barracks" properties - into the number of (Upper) Mokotów citizens in 1916 (22,118) gives a marginally higher mean calculation of 53 inhabitants per property. It is impossible to specify to what extent housing conditions in the new tenements were superior to those in the small town houses and cottages of outlying villages in *arrondissement* XVI, but it is certain that the number of residents per property was considerably higher in the tenement quarter, probably exceeding, or not falling short of, 100. The number of rooms to an apartment in tenement properties would be expected to exceed the average recording for the district (1.6), while the number of residents to a room was inevitably much lower in this evolving middle class district of qualified professionals and intellectuals (a social characteristic of Upper Mokotów which was to become

Figure 2.17: Mokotów district; tenement belt assimilation upto 1915/18



all the more pronounced after 1919 and has in part remained to this day).

The earliest brick or stone houses were put up on Nowoaleksandryjska and Rakowiecka streets in the late-1890s; the Russian authorities even set their own example by constructing on Rakowiecka a new prison complex on a sizeable plot already laid out for the purpose in 1882. The Keksholm Brigade Barracks was set up in 1900 on the other side of the road, thus emphasising the virtual severing of Mokotów from the Main City, which could be reached only via the Mokotów Circus, thereafter renamed the Keksholm Circus (changed again in 1919 to Union of Lublin Square, by which name it is still known today). Szwankowski noted that 4- and 5-storey tenements were already being constructed on Nowoaleksandryjska/Puławska street from c. 1910, dispersed cases of which can be identified as far south as the parish church (cf. Fig. 2.17). (233)

Assessing the extent to which tenement property development had advanced by the outbreak of World War I is confounded by a lack of detailed cartographic evidence from between 1903 and the interwar years. It would seem that individual properties were completed during the war years and even new constructions begun as late as 1917. Private housing construction was slow to recommence in post-1918 Warsaw, but it would seem that tenement evolution in Mokotów, in spite of new building regulations introduced after 1919, was a gradual, continuous process, beginning in the 1890s and continuing well into the 1920s and even the 1930s. Most building plots had been demarcated within the Mokotów tenement quarter, delimited by Rakowiecka, Wołoska, Racławicka, Puławska streets and the escarpment. Individual case studies from this quarter would be expected to provide

insight into this process, while at the same time establishing the extent to which tenement types, apartment subdivisions and housing densities mirrored those in southern tenement belt districts such as Koszyki and Ujazdów (cf. examples of tenement house property development in Mokotów predating 1914, but also raised in the 1920s and even during the Great War are illustrated in the photographic documentation of Chapter 11).

Ochota outer tenement district  
(Plate VIIId)

"Property owners in Ochota and nearby developing areas complained their possessions remained in a constant state of severe neglect even after the toll gates" (as synonymous with the municipal boundaries) "were somewhat extended in 1909" (i.e. as far as Kaliska Street). "Street lighting in Ochota was made obligatory only after 1908, until which time the situation was extreme. The municipal water supply system, even while replacing earlier artesian wells, failed to satisfy the growing populace's needs, which were no less great when it came to canalisation and good road surfaces, not to mention public tram services. (...) Ochota at this time was to a large degree built up with several-storey brick housing of a similar unstylishness characteristic of many Warsaw houses from that era." (234)

Most such 2-floor or higher houses would have probably consisted of slightly more than 20 single or 2-room apartments, since the 1919 census recorded a significant 115 "barracks"-type properties in *arrondissement* XXIII. A

triangular enclave of territory behind the Jerusalem Toll Gates, delimited by the Radom Highway, Kaliska Street and the Warsaw-Vienna Railroad, incorporated into Towarowa municipal district (VI) after 1908, was transferred in 1916 to the newly-created Ochota *arrondissement*. Consequently, there is no data available for this previous inner-city enclave at street block scale, although it is likely that many multi-apartment houses, composed of singleroom workers' "barracks" - or slums - were in fact located further afield in the southern part of Czyste "village" incorporated in 1916 into Ochota *arrondissement*. The 1:2500 scale base plan reveals property development here to have been more dispersed than in Mokotów, composed of tenement buildings fronting more important roads and back-plots characterised by (semi-residential and semi-manufacturing?) outbuildings behind (older?) wooden, or smaller brick, frontal houses. A single new street was opened up in "municipal" Ochota before 1914: Spiska. Ribbon development along the Radom Highway (from 1908 known as Grójecka Avenue) was strongly accented (as on Wolska and Puławska suburban high streets), while side streets, already laid out beyond the pre-1916 city limits, were only partially built up; e.g. Sękocińska, Barska, Węgierska, Kopińska, Częstochowska, Winnicka, Rokosowska streets, etc. A secondary, more peripheral built-up area, following the former village high street of Czyste (Szczęśliwicka Highroad), consisted mainly of smaller houses and cottages, but also some isolated "barracks" tenements, extending south-westwards along the railway lines (southern prolongation of Kościelna Street and a former military road, "Na Bateryjce"; i.e. Battery Road). Beyond Opachewska Field Road stretched the Rakowiec Hospital grounds, isolating a village of the same name from the



suburban advance.

Ochota's proximity to the Warsaw-Vienna Railroad and its former location in Czyste parish, with the evolving industrial zone districts of Czyste and Wola, initially defined Ochota's proletarian social structure, undergoing significant changes only after 1919 when, like Mokotów, it began to evolve as a middle class district inhabited by state employees and other urban professionals (eg. "Civil Servants' Ochota residential district demarcated on the base plan coming from the interwar years in plate VIId; cf. also Fig. 2.18). Development prior to 1914/1919 as yet consisted of dispersed and mixed building types ranging from 1-, 2- or 3-apartment cottages to multi-apartment tenements. Housing densities were high even in relation to Wola and Powiśle inner-peripheral districts, reflected by a mean calculation for 1919 of more than 4 residents to a room (cf. Table 7 in Chapter 4).

Tenement housing, as synonymous with a certain, stabilised standard of living in pre-1914 Warsaw, was still in the early stages of taking shape in Ochota, being hindered, as in Wola and Powiśle, by the impoverished state of its mainly working class population. A "suburban house" type composed of less than 20 apartments would seem to have been most typical of this district before World War I (162 such property types recorded in 1919).

Religious investments and denominations in the suburbs

In 1909 construction was begun on Ochota's parish church; for once, a restrained, but powerful early-modernist design harking back to (Polish) Romanesque architectural forms

(designer O. Sosnowski). The raising of RC temples beyond the Main City toll gates, funded mainly by public donations, is symbolic of the human scale of suburban development in the late-19th. and early 20th. centuries. The parishioners of Mokotów had already invested in a new parish church during the 1850s, followed closely by the one raised for Czyste's still overwhelmingly rural residents in 1860 (St. Stanislas's at the corner of Dworska and Kościelna streets). Praga's St. Florian's massif was put up after 1888, followed by Wola's St. Stephan's and a new Powązki cemetery church in the 1890s (all three by one architect, a J. Dziekoński). The slightly earlier temple at Bródno, inevitably, had to be built of wood (still extant), while another Praga temple was begun after 1907 in the Szmulowizna quarter.

The Russians raised authentically onion-domed Orthodox churches, or took over the buildings of outlawed RC orders in the city's very heart; apart from the cemetery church in Wola they were not interested in the suburbs where representational effect was minimal, as indeed was the Russian community. The Orthodox Jewish community practised its faith almost exclusively in prayer houses (*domy modlitw*); a specific element in "Jewish" tenement which accommodated such places of worship in private apartments (undocumented - cf. Chapter 12).<sup>(235)</sup> Only a handful of synagogues was ever put up in Warsaw, in spite of the fact Europe's largest Jewish community lived here; the largest and most monumental of these, the so-called Great Synagogue, blown up by the Nazi's in 1943, belonged to the Europeanising Jewish minority. The suburban Jewish population was in a decided minority (c. 12,000 in 1917, probably not much greater in 1913). Larger suburban communities existed in Grochów and Pelcowizna on the Vistula

East Bank, as well as in Mokotów, Sielce, (outer) Wola, Ochota and Marymont-Młociny, where only prayer houses operated.

The suburbs were, therefore, inhabited by an overwhelmingly Polish ethnic majority. It is unlikely the great RC temples, dominating the chaotic, in places even primitive, urban profile of the outer city, would have signified a great deal to large parts of the "lumpenproletariat" living under their shadow. The "national motifs" of their architecture were intended to lend the city a "western" or "Polish" identity, in spite of its incorporation into the Russian Empire and geographically Eastern European location. Although synonymous of rapid outer city development before 1914 - to a greater extent than tenement house evolution - these religious temples lent a startling contrast in their scale, building materials and costly architectural programmes to the generally underdeveloped, neglected and impoverished profile of suburban Warsaw. Each of these edifices, in spite of in certain cases almost total demolition during the 1939-'45 war, have continued to function to the present day. (236)

Suburban "town" houses

In 1898 a Warsaw daily newspaper noted:

117 building applications have been submitted to the Technical Department of the gubernia" (i.e. Vistula Provinces) "authorities for planned housing projects in Sielce district." (237)

In 1919 the dominant house types in Sielce, (outer) Wola and Koło *arrondissements*, to a lesser degree Ochota and Mokotów districts, were composed of between 4 and 20 apartments (cf. "The outer city in relation to the study area" section of Chapter 4). It has been seen that "barracks" properties had also come to present a significant proportion of developed properties in Ochota and Mokotów, as well as more peripheral parts of Wola (*arrondissement* XXII) incorporated into the city only in 1916 (i.e. 96 out of 403 houses). In *arrondissements* XX (Sielce) and XIX (Koło), however, "medium-sized" houses accounted for 55%-60% of all property types (165 out of 311 properties in Sielce and 88 out of 150 properties in Koło), while the number of "small" or single-family houses, consisting of 3 or less apartments, was also significant (103 in Sielce and 32 in Koło). Building forms of this kind can still be identified in surviving fragments of the pre-1914/1919 urban topographies of these two districts (refer to photographic documentation in Chapter 10).

A suburban house type was evidently beginning to appear in more distant parts of the outer city under the impact of Warsaw's urban expansion:

"In Czerniaków" (village) "even rural landowners are starting to put up one-storey houses constructed from brick. Work is being completed on the peasant Werdecki's large house which has an upper storey and a balcony, apart from a zinc-plated roof."

( "BUILDING NEWS", 1898) (238)

Mr. Werdecki's home may have consisted of under 4 apartments. It is equally possible he was intending to rent out flats, as many fellow country landowners were tending to

Figure 2.18:

Unrealised urban improvement,  
private property development  
and new districts planned in  
c. 1898-1939



NEW ŻOLIBÓRZ  
(govt. sponsored  
from 1918)

"BUREAUCRATIC" OCHOTA  
(early 1920s; govt.)

MOKOTÓW (new)  
c. 1898-1915/18

LEFTBANK TENEMENT BELT  
c. 1864-1914

NEW SASKA KĘPA  
1911  
(municipal plans)

0 100 1000 m  
c. 1:33,000

299

do from the late-1900s in view of the ever-growing housing shortage in Warsaw and growing housing demands on the outer city. Although the number of so-called single-family houses (mainly wooden cottages) continued to prevail in Czerniaków and Grochów (*arrondissements* XXI and XVII) - the least-urbanised areas of metropolitan Warsaw - the number of medium, "town"-house types was definitely rising (28% and as high as 48% respectively).

Krzywicki and Strzelecki in the 1919 census publication suggested in particular reference to *arrondissements* XVII, XIX, XX and XXI, as well as to Mokotów, Ochota and (Outer) Wola:

"(...) house types of a lesser number of apartments are gradually disappearing and an increasing role is being played by multi-apartment housing." (239)

Cartographic evidence relating to Sielce, Koło and more peripheral western or southern districts, as well as Grochów, reveals large areas within each of these *arrondissements* featured relatively dispersed properties and only partially built-up plots. This evidence suggests a comparatively early stage of urban development had been reached in these outer districts, reminiscent of large parts of Warsaw's tenement belt in the 1850s or 1860s prior to intensive housing construction. (240)

The failure of tenement evolution in the suburbs

Considering more than a million urban dwellers are estimated to have been living in Warsaw's metropolitan area

before 1914, interwar demographic growth turned out to be notably less dynamic than in the 1890s and early-20th. century. (1,144,200 in 1931 increasing to 1,289,500 on the eve of World War II). Furthermore, new building regulations were introduced by the new Polish Republic in 1919, together with "fair rent" controls, designed to curb some of the worst excesses of property speculation. Probably of much greater significance was the rise in cost of building materials and construction expenses in the 1920s:

"Inflation and high building costs were the main cause behind a general worsening of conditions for house construction after the" (First World) "war." (241)

Although private property investment would continue to shape the tenement belt assimilation quarter of Mokotów, and to a lesser extent Ochota, private investment in Wola (inner and outer), Koło, Sielce, as well as the northern rightbank wooden townships and Powązki-Marymont, would bring about only insignificant alterations to the pre-1914 urban patterns of these districts.

Wealthier inhabitants, abandoning the tenements, tended to have put up for themselves suburban villas - often in the immediate environs of impoverished shantytown quarters - while the essentially interwar districts of Żoliborz, Bielany, "Civil servants' Ochota", Saska Kępa and Czerniaków garden suburb (Sadyba) arose in accordance with central planning projects approved or even initiated by the municipal and state authorities. Some cooperatives (e.g. WSM) and workers' housing groups (TOR) raised housing estates and workers' colonies (for a very lucky minority) in Żoliborz, Koło, Grochów and Rakowiec. (242)

Even if tenement housing of the consistent,

central-closed courtyard configuraton evolving in the Mid-Town had been gradually beginning to take shape in peripheral districts like Sielce, (outer) Wola and Koło, changing economic, social, local government and political conditions after 1919 essentially halted this process. Bearing in mind the overwhelmingly artisinal and working-class character of these districts, discouraging property speculation - in contrast to the altering social structure and expanding investment in Mokotów and Ochota - it could be argued that "barracks" house uniformity was unlikely to have evolved, or in any case was a very long way from crystallising, in most parts of the outer city.

The anti-tenement city

Another type of medium-sized suburban-town house had made its appearance in the northern suburban *arrondissements* of Pelcowizna-Nowe Bródno-Targówek (formerly in the rightbank parish of Bródno) and Marymont (leftbank). Some brick construction ensued in the interwar years, but the urban profile of Pelcowizna and Bródno especially was to alter litte up to 1939, remaining in places until housing block redevelopment in the 1960s (Bródno estates) and the 1970s (liquidation of Pelcowizna, except an interwar RC church, and raising of Targówek estates). The housing crisis proved as far away from being solved - or even eased - in 1939 as it had been in 1914: shantytowns such as Okęcie had grown up or grown larger still, a colony of wooden barracks constructed for homeless and unemployed people at Annapol (north of Nowe Bródno) became symbolic of the new political order's total ineffectiveness in dealing with this major



social issue, while the "sand-caves" of Młociny were a new phenomenon altogether.<sup>(243)</sup> In an exhaustive economic, social and political study of Warsaw between 1918 and 1939 E. Wynot (Junior) was able to make the following analogy:

"There are certainly many reasons for suggesting that the experience of interwar Warsaw parallels that of most capital cities of the 'Third World' that gained independence following World War II."<sup>(244)</sup>

The Polish Republic's seat of government was to remain a city of extreme contrasts. The garden suburbs of affluent villas and neat residential blocks of minimal or middle-class apartments seemed, at least for some, to suggest an optimistic future. The neglected, decaying, inner tenement districts of Muranów, New Town and the western *arrondissements*, inhabited by an economically pressurised Jewish community and less affluent Polish social elements, were already synonymous of a better-forgotten past when Warsaw had been governed by St. Petersburg. Impoverished wooden districts such as, Nowe Bródno, Pelcowizna, Targówek, Powązki and Marymont, presented the picture of a real urban out-back, although it could be argued that having evolved in virtually complete isolation from Warsaw City, cut off from the inner urban area by a tsarist military belt, these northern-outer districts represented a contrasting form of city development and different type of urban community. Wooden house districts connected to the electricity grid after 1945 and still dependent in the main on wells for water supply have continued to operate in many Russian towns, as well as in the Polish-Byelorussian city of Białystock (c. 270,000 inhabitants in 1990).<sup>(245)</sup>

Putting aside the nevertheless enormous changes

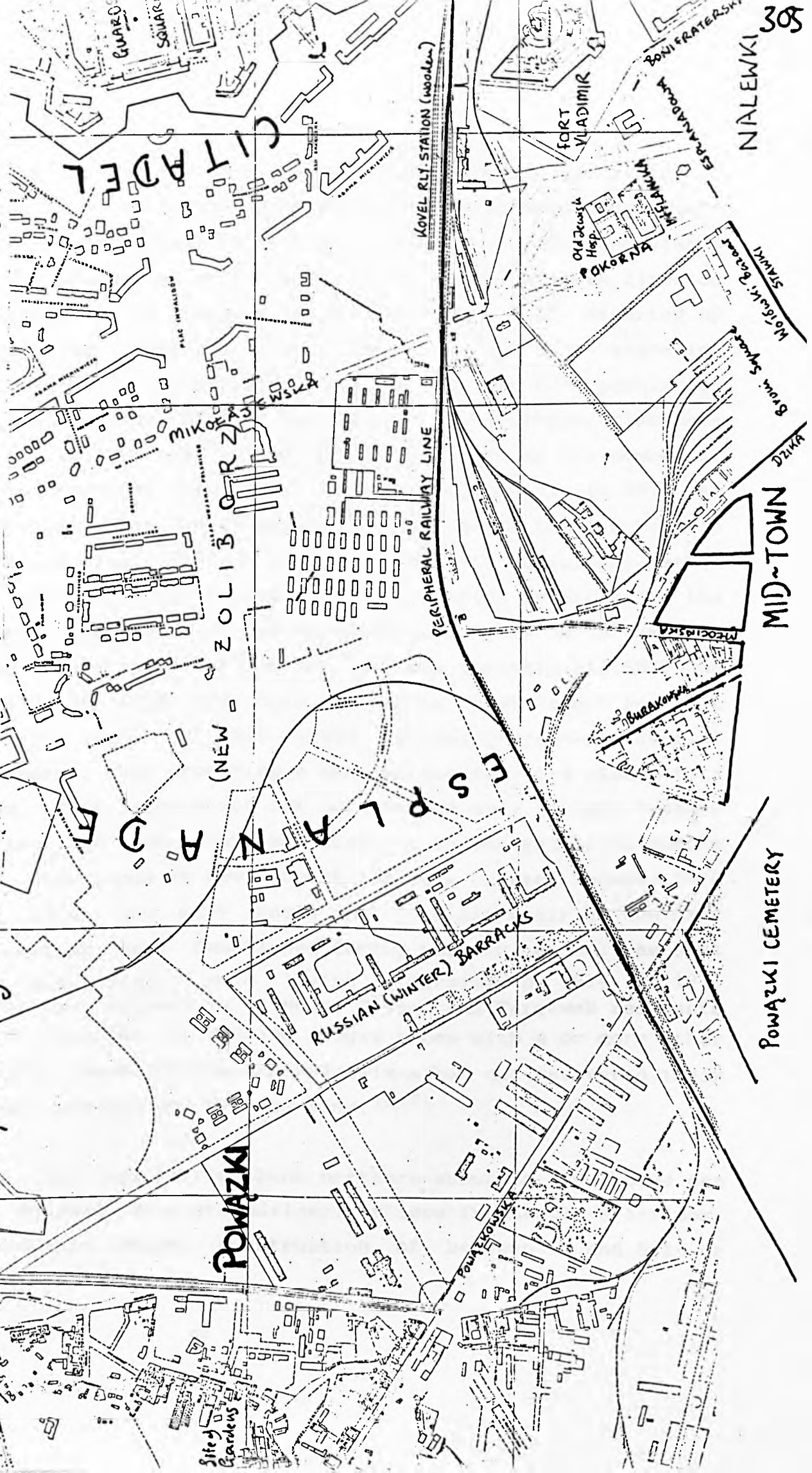
brought about in selected suburban *arrondissements* after 1919, two broad types of urban form had arisen in Warsaw's metropolitan area from the mid-19th. century: an inner city of multi-storey tenement building ("Mietskasernestadt"), and a suburban outback of low, wooden housing. A transitional zone of mixed building types had arisen between the tenement belt and less compactly built-up wooden outer city (Powiśle-Praga-(inner) Wola, to a certain extent Ochota). Tenement development by 1914 was very advanced in the southern inner city assimilation quarter of (Upper) Mokotów while other suburban districts were arguably entering the earliest stages of tenement, or at least "medium-sized", town house, evolution (Ochota, part of (outer) Wola, Koło, Sielce, the Grochów colonies and even isolated areas of Czerniaków; cf. schematised diagram of zoning patterns in the metropolitan area by c. 1914).

The northern suburban *arrondissements* of Pelcowizna (XVIII), Targówek (XXIV), (Nowe) Bródno (XXV) and Marymont-Powązki (XXVI), however, remained solidly wooden. Data from the 1916 survey of outer-city properties, referred to extensively in the 1919 census (cf. "The sub-urban periphery" section of Chapter 1A), reveals a massive 94.5% of all buildings composing developed properties in *arrondissements* XVIII, XXIV and XXV were constructed entirely from wood, leaving a minimal 95 brick-stone or concrete buildings (excluding factories and state railway property). In Marymont *arrondissement* (XXVI) the situation was very similar, where 1016 wooden out of a total of 1095 buildings in properties were recorded. Not a single building in these districts exceeded 2 storeys in height. A sizeable proportion of frontal buildings was built up from the back with residential outbuildings (25%-50% of properties

composed of more than one residential building). A comparatively small number of free-standing buildings raised in the middle of plots, of the rural cottage layout typical of villages or farmsteads was noted in 1916/'19. Consequently, it may be concluded that properties in these districts had evolved beyond the rural cottage building form and might be recognised as town houses, even though they were built of wood.

Urban development in Bródno parish had been encouraged by the opening in 1877 of the Nadwiślański (Trans-Vistula) Railroad with its (wooden) station and railway yards located to the north of Praga (cf. "Concentrations of developed property" section of Chapter 1B). A ban on brick-stone building in this area until at least 1911 had not prevented the growth of a large suburban community here. It cannot be confirmed with absolute certainty how many inhabitants had settled in the Bródno settlements up to 1914, since only the entire parish population was recorded in 1913 (including an extensive, largely rural area not incorporated in 1916), while in 1910 no account was taken of Nowe Bródno and Pelcowizna (cf. "The demographic pattern in 1913: the sub-urban zone" section of Chapter 3). Supposing it has been correctly estimated that post-1916 *arrondissements* XVIII, XXIV and XXV had had a combined population of 60,000 residents in 1913, and the number of properties, apartments and habitable rooms recorded in 1916/1919 adequately reflected the situation in 1913, housing densities were exceptionally high even by Warsaw's standards; i.e. 5 or 6 people to a room (10,114 rooms divided into 60,000 inhabitants). This very high mean figure may raise doubts as to the accuracy of the 1913 population estimation, although it should equally be born in mind that some wooden

Figure 2.19: Powazki shantytown arising behind the Russian Citadel's esplanade (Zolibon new district arising upto 1936)



POWAZKI CEMETERY

MID-TOWN

NIALEWKI

properties in the northern rightbank suburban districts, no less than in Powazki and its neighbouring wooden districts in Marymont *arrondissement*, were almost certainly demolished during the war years for building material and even firewood (especially in houses which had been left deserted by emigrating Russians and Russian Jews or migrating Poles).<sup>(246)</sup> Furthermore, by taking the 1913 population estimation for Młociny parish within the metropolitan area (i.e. 20,000) and dividing this figure by the number of rooms recorded for the 26th *arrondissement* in 1919, an identical mean calculation of 5.9 residents to a room is obtained (cf. Table 7 in Chapter 4). An additional method of checking the reliability of housing densities in the wooden districts of the northern outer city is to take the 1910 population recording for Targówek township (13,687) and divide it into the only available room count for that district made in 1919 (3629, including mixed-residential chambers), thus procuring a mean estimation of 4 people to a room. This calculation can be expected only to very broadly reflect the true situation, since it is impossible to assess how many rooms in new properties were created between 1910 and 1914, how many rooms fell into disrepair or how many properties were demolished during the war, as well as just how many people were living in Targówek by 1914. In 1931 18.3% of Pelcowizna, (Nowe) Bródno and Targówek residents were recorded as sharing single rooms with 4 or more other people; Nowe Bródno and Pelcowizna had not recovered their prewar populations by this time.<sup>(247)</sup>

The typical rightbank northern-suburban town house can be defined as a groundfloor, or less frequently a 1-floor, inevitably wooden construction of between 5 and 8 1- or

2-room apartments, often consisting of a secondary, semi-residential outbuilding apart from service buildings with a well, housing between 50 and 60 residents before 1914. Confirmation of this model suburban house form, based on statistical data, may be taken from a handful of surviving pre-1914 properties in Targówek and former Nowe Bródno (refer to photographic documentation in Chapter 10). The Powązki wooden house -in a quarter where property development had been much more seriously affected by building restrictions in connection with its immediate proximity to the Russian Citadel, was significantly smaller than its rightbank counterpart; it was, almost without exception, a groundfloor affair of 3 or 4 predominantly singleroom apartments accommodating in 1913 an average of 25 people (cf. Tables 6A, 6B and 7 in Chapter 4, as well as annex table V).

#### The wooden tenement house

Although the tsarist ban on brick or other "permanent" building materials in northern suburban Warsaw, operating between c. 1870 and 1911, was primarily responsible for the development of almost entirely wooden, and populous, townships in Bródno and Młociny parishes before 1914, the use of wood in private residential construction was also widely applied throughout the study period in inner-peripheral and even certain Mid-Town districts. The lightness of wood as a building material encouraged the raising even of several-storey wooden houses in parts of the inner city where the water table was high (especially in Powiśle and Praga), or where land had been inadequately

drained (Okopowa tenement district and large parts of Wola), as well as other suburban *arrondissements* such as Czerniaków). Wooden property development in Mokotów, Ochota and other suburban *arrondissements* was synonymous with an early phase of urban evolution; just as it had at one time accounted for a significant and even a majority of buildings inside the customs walls before the 1860s (cf. Table 9a in Chapter 9). 2- and even 3-storey wooden tenement houses have been identified in Okopowa tenement belt district (street block no. 116 where properties consisted on average of 40 apartments; cf. "Street block 116 properties case study" in Chapter 12). House forms of this kind were also raised during the period under investigation in Praga, Powiśle and Wola, representing a wooden analogy of the brick-stone, multi-storey tenement building type. A last surviving example of a several-storey wooden tenement frontal building on Bródnowska Street in New Praga's Konopacczyzna quarter was unnecessarily ripped down in 1988 to the apparent ignorance, or indifference, of the Warsaw Capital City Conservator.

## NOTES

### Chapter 1 : THE FIRST COMPREHENSIVE PROPERTY COUNT

#### -PROPERTY DIVISIONS AND BUILDING DENSITIES IN GREATER WARSAW-

1. The redrawing of the map of Central- Eastern Europe and circumstances behind Poland's reemergence as an independent state are placed in a European context by David Thompson in *Europe since Napoleon* (1957) ; cf. especially Chapter 23 - "Domestic consequences 1914-1923" (p.574ff) and Chapter 24 - "International consequences 1918-'23" (p.613ff).  
For closer inspection of local developments cf.:  
(Antony Polonsky) "The emergence of an independent Polish state" in *The History of Poland since 1863* (editor R.F.Leslie, 1980).
2. Cf. R.F.Leslie in '*A History of Poland ...*' p.36ff,p65f and p.99ff.
3. J.Chrościcki, A.Rottermund. "Spatial Development"(in) *An Atlas of Warsaw's Architecture* (pp.8-12 and 25-35), Warsaw 1977, M.Nietyksza, W.Pruss Podziały administracyjne a układy historyczne, *Wielkomiejski rozwój Warszawy do 1918 roku* (ed. I.Pietrzak-Pawłowska), Warsaw 1973.
4. *Rezultaty spisu nieruchomości i mieszkań Wielkiej Warszawy w 1919 roku*, tom I część I, p.11. Original quote :  
"Okręgi podzielono na bloki odpowiadające naturalnym skupienieniom domów, ograniczonych przecinającymi się ulicami."
5. Ibid p.30f, '*Liczba Mieszkańców*'('The number of inhabitants')
6. See J.Cegielski, *Stosunki mieszkaniowe w Warszawie.w latach 1864-1964*. Warsaw, 1968.
7. '*Rezultaty spisu nieruchomości i mieszkań ...*'tom I, część I, p.9 (original quote) :  
"(...)zorganizowanie i przeprowadzenie w Warszawie spisu mieszkań, między innymi pustych, jak również spisu nieruchomości, a także budynków niezajętych, niewykończonych i rozebranych".  
Apart from Krzywicki and Strzelecki, the census commission



was chaired by representatives from the Ministry of Health, Home Office and leading city councillors such as T. Toeplitz and J. Blenau.

A survey of unoccupied apartments in the former Congress Kingdom of Poland had been carried out in June 1918 by the Ministry of Public Health and Social Welfare;

cf. J. Kowalczewski *Wyniki ankiety Ministerstwa Zdrowia Publicznego i Opieki Społecznej z dnia 15.VI.1918r. w sprawie niezajętych mieszkań na terenie byłego Królestwa Kongresowego*, (Warsaw 1919).

8. *Rezultaty spisu nieruchomości...* ibid p.14 and p.24.

9. Ibid, p.14 :

"Charakterystycznym jest fakt, że świadomego wprowadzenia w błąd przez dawanie fałszywych zeznań nie było."

10. Ibid, p.12.

11. Antony Polonsky in *The History of Poland since 1863*, pp.133-'38

12. "Wypadki wojenne ówczesne, poławianie pracowników do wojska dalsze skurczenie się biura, wreszcie brak odpowiednich kredytów na publikację, opóźniły ogromnie ogłoszenie rezultatów".

(*Rezultaty...*, Ibid p.13)

The summoning of municipal and ministerial civil servants to active military service was obviously connected with the Russo-Polish War of 1919-'20, which came to a particularly dramatic climax in August 1920 when Warsaw itself was threatened by a Soviet offensive. The Red Army's defeat at the Battle of Warsaw is open to various historic interpretations. A whole book about it has been written in English seeking to publicise an event which rarely attracts much attention among western, or for that matter Soviet, historians.

cf. N. Davies. *White Eagle-Red Star. The Polish-Soviet War 1919-1920*, London 1972).

13. "Sekcja Statystyczna Urzędu Miejskiego, która ogłasza niniejsze wyniki spisu, jest kontynuatorką prac biuura Komisji Spisu Mieszkań i do ostatka pozostaje w zetknięciu z członkami dawnej Komisji Spisu Mieszkań miasta Warszawy, aby jak najdobitniej zaakcentować

jednolitość prac i celów."

(*Rezultaty...*ibid p.13)

14. "Gruntowne sprawdzania i poprawienie tego podziału wymagałoby wielu czasu i środków, trzeba więc skoncentrować wyniki w tablicach terytorialnie przejrzystych. W publikacji niniejszej, jako najbardziej zróżnicowane jednostki, występują zatem obecne okręgi policyjne."  
(Ibid p.16)
15. The 'cards' ('*kartki*') collected for inner city properties, as well as the handwritten questionnaires from property owners and chief tenants, were referred to in connection with subdividing Warsaw into census districts during the national population count of 1921.
16. J.Cegielski. *Stosunki mieszkaniowe...*op.cit. pp.163-'68.
17. Krzywicki and Strzelecki refer to the defining of "statistical areas" ("*okręgi statystyczne*") in the 1891 survey, emphasising that in 1919 there had been no opportunity to delinieate census districts along similar lines.
18. *Wielkomięjski rozwój Warszawy...*op.cit., p.68
19. K.Dumała."Dzielnice Warszawy w okresie zaborów" (in) *Kwartalnik Historii Kultury Materialnej*, R.XXXVII, Warsaw 1989 nr.1, pp.3-86.  
(Summary in French : *Les quartiers de Varsovie à l'époque des partages de la Pologne*).
20. *Rezultaty...*tom II,annex table IV (pp.7-17).
21. S.Szymkiewicz, '*Inkorporacje przedmieść i stworzenie Wielkiej Warszawy w roku 1916*' in '*Kronika Warszawy*' vol.VI (1930), no.7.
22. H.Radziszewski, *Gospodarstwo miejskie*, Vol.II( S.Dziewulski. Vol.I, *Historia rozwoju, Topografia miejska, Statystyka ludności*), *Warszawa*, Warsaw 1913-1915.  
A certain patriotic interpretation of Warsaw's 19th.century urban development under "exceptionally unfortunate circumstances" is emphatically underlined in the following wartime or interwar (popular rather than academic) publications:  
A.Lauterbach. *Potrzeby estetyczne Warszawy*, Warsaw 1915;

S.Rychliński. *Warszawa jako stolica Polski*, Warsaw 1936;  
A.Moraczewski. *Warszawa*, Warsaw 1939.

These three monographs lack the comparative objectivism of the H.Radziszewski-S.Dziewulski study and 1919 property census publication.

23. *Wielkomijski rozwój Warszawy* op.cit.p.40.  
24. Russian Imperial cities source (Congen-Canadian/American)  
25. *Wielkomijski rozwój Warszawy* op.cit., p.5

Quote :

"Poznanie dziejów Warszawy jednak wymaga kompleksowej analizy realiów historycznych, w jakich kształtowały się wielorakie funkcje miasta i życie jego mieszkańców. Warunki rozwojowe Warszawy splatały się nie tylko z losami regionu i kraju, ale także z uniwersalnymi przemieniami gospodarczo- społecznymi w skali europejskiej".

26. J.Cegielski. *Stosunki mieszkaniowe* op.cit., pp.71-'4.  
27. W.S.Sayr. New York, *Great Cities of the World*, vol.II pp.696-'98, London 1972  
28. H.J.Reichart. "Stadterweiterung", *Berlin. Exerzierfeld der Moderne.*, (editors : J.Boberg, T.Fichter, E.Gillen);  
H.Matzenrath. Berlin,pp304-'5, *Metropolis 1890-1940*, (ed. A.Sutcliffe), London 1984.  
29. M.M.Drozdowski. *Warszawiacy i ich miasto w latach II Rzeczypospolitej*, Warsaw 1975.  
J.Wynot Jr. *Warsaw between the Two World Wars*, New York 1983  
30. The term "*GrUnderzeit*" in reference to 19th. century social and economic changes in Eastern-Central Europe, and especially the Austro-Hungarian Empire is roughly equivalent to the English conception of "Industrial Revolution". H.Bobek, E.Lichtenberger, F.Czeike and F.Wulz, among other specialists in Vienna's 19th.century residential building, use the terms "*FrUh-*"(early), "*Mittels-*"(middle) and "*Hoch-*"(high; i.e. late) "*GrUnderzeit*" to refer to various stages in the perceived 19th.century socio-economic process "early-" industrialisation preceding bourgeois emancipation in the wake of the Spring of Nations in 1848 ("*Bürgerliche Emanzipation*"), while "high-" industrialisation is seen to have evolved from the early-1860s.

A similar general time division is recognised in the urban explosion occurring in 19th-century Berlin, also related to political developments with major socio-economic implications. An early-industrial era is generally regarded as having got under way in earnest after the Napoleonic Wars, although a true "Industrial Revolution" did not make its impact on city and society until the 1850s, with large-scale urban development ("*Grossstadtentwicklung*") ensuing full German unification in 1870-'71 (cf. H.Matzenrath, J.Boberg-T.Fichter-E.Gillen).

Note: J.F.Geist and K.Kürvers took the year 1862 as a dividing line of their synthetic research of the Berlin townhouse and tenement house in *Das Berliner Mietshaus 1740-1862* (Band I), *Das Berliner Mietshaus 1862-1945* (Band II).

Marxist-Leninist historic interpretation has greatly influenced post-1945 writing which generally refers to "early-capitalism" and "late-capitalism", as well as . ("*koniunktura*"), and the general term "industrial age" ("*okres przemysłowy*"). Polish cultural history (literary-artistic) tends to be viewed in relation to romantic (1822-1863), positivist (1863-1890s) and "Young Poland" (1890s-1914/'18) eras (cf.: R.F.Leslie op.cit., pp.1-8; S.Kieniowicz. *Historia Polski 1795-1914*, Warsaw 1961; P.S.Wandycz. The Era of Late Classicism and Early Romanticism, The Era of Romanticism, The Era of Positivism, The Era of "Young Poland"(in) *The lands of partitioned Poland, 1795-1918*, Seattle-London 1974).

In Russia industrialisation was greatly delayed and did not make any great impact on urban society until after the peasant emancipation of 1861.

It is worth noting the connection between "*Gründerzeit*", referring to 19th-century industrialisation, and "*Grundbesitz*" ("real estate" or "landed property"). A period of reckless financial speculation in the wake of Prussia's victory over France in the 1870-'71 war came to be known as the "*Gründerjahre*", during which time (1871-c. 1874) Berlin and numerous German cities experienced building booms; the word "*Gründertum*" is translated in English as "speculative

mania". Each of these words is derived from "*Grund*" ("ground", "soil", "earth", as well as "estate" or "terrain") and "*gründen*" ("to establish", "found", "promote"). It might thus be argued that 19th-century industrialisation in German-speaking countries is immediately associated with private speculation, particularly property speculation.

It is perhaps no coincidence that Warsaw experienced its own private property building boom in the first half of the 1870s and that many of the owners registered at that time had German-sounding surnames (cf. *Taryfy domów* for the years 1872, 1877 and 1879).

31. "Nieruchomością według zasad spisu nazywamy gruntową, zabudowaną lub nie zabudowaną stanowiącą odrębną całość gospodarczą. Będzie to obszar terytorialny, pusty lub zabudowany, stanowiący własność osoby fizycznej lub prawnej a nawet osób, oddzielony od innych posesji tego samego właściciela"

(*Rezultaty...* tom I, część I, p.17)

32. "Brak jednej określonej cechy zewnętrznej wspólnej wszystkim nieruchomościom sprawia, że niezmiernie jest trudne ustalenie liczby i podziału nieruchomości."

(*Ibid*, p.17)

33. "Nieruchomość zabudowana posiada zwykle odrębny numer policyjny, hipoteczny (czasem po kilku) i własną księgę meldunkową".

(*Ibid*, p.14)

34. "Pł-c-to teren niezabudowany, który nie jest podwórzem nieruchomości zabudowanej, a stanowi bądź leżąca odłogiem parcelą budowlaną bądź pole uprawne, ogród lub wreszcie obszar gruntu użyty na cele przemysłowo-handlowe, lub rozrywkowe i inne."

(*Ibid* p.14)

("An (open) space is an undeveloped area which does not constitute the courtyard of a developed property, but may be disused building plot or cultivated field, a garden or may form part of grounds serving industrial, commercial, recreational or other functions")

also :

"Parcelle traktujemy jako tereny, które możnaby zabudować"  
(Ibid, p.21)

("Plots have been interpreted as territory which may -  
potentially - be developed")

35. Properties were thus categorised in two broad stages :  
A. developed/built-up, undeveloped or 'under construction'  
(*'nieruchomość zabudowana; niezabudowana; w budowie'*)  
B. main function (if developed) : residential ("*nieruchomość  
mieskalna*")  
commercial/industrial ("*nieruchomość  
handlowa-przemysłowa-użyteczności publicznej*  
hospitals, hotels, boarding schools  
(*"hotele, pensjonaty, szpitale"*)
36. *Rocznik wydziału statystycznego Magistratu Miasta  
Stołecznego Warszawy (1916)*  
S.Szymkiewicz *Inkorporacja przedmieść...* in *Kronika Warszawy*  
annual VI, no.7 (1930).
37. "Bardzo wyraźnie różnią się pod względem skupienia 3  
dzielnice Warszawy : śródmieście, Praga i przedmieście.  
Śródmieście posiada niemal 2 razy więcej nieruchomości  
na hektare niż Praga, a prawie 4 razy więcej niż  
przedmieścia. Parcelacja gruntów na cele budowlane w  
związku ze wzrostem cen na place położone bliżej centrum  
tworzą podstawę tych różnic."  
'*Rezultaty...*' Ibid p.19
38. A. *Plan Miasta Stołecznego Warszawy.* (Biuro Pomiarów Działu  
Regulacji Pomiarów Zarządu Miejskiego w Warszawie, kierownik  
inż. A.Jeżewski) Warsaw 1925, reprinted in 1936, scale 1 :  
2500;  
B. *Plany Lindleyowskie 1883-1915*, scales 1:200, 1:250,  
1:500, 1:1000 and 1:2500 (in) *Archiwum Miasta Stołecznego  
Warszawy*; (cf. M.Witecki. *Plany Warszawy Lindleya 1883-1915*,  
Warsaw 1990);  
C. *Army Officers' Plans* (S.Koriot) 1822-1869.
39. *Wielkomiejski rozwój Warszawy...* op.cit., p.90, p.123,  
pp.125-'31
40. M.Gajewski. *Zabudowa miejska i urządzenie komunalne*,  
*Wielkomiejski rozwój Warszawy* op.cit., p.101  
It is not stipulated from where these statistics originated,

although it might be assumed they come from municipal or tsarist state administrative sources compiled before 1914 (compare J.Cegielski *Stosunki mieszkaniowe* op.cit.,p.221).

- 41 . "Bez wyeliminowania wpływu, jaki ma powierzchnia ulic i placów w różnych okręgach na wielkość przeciętnego skupienia nieruchomości na jednostce terenu, trudno jest oddać faktycznie przyczyny większego lub mniejszego rozdrobnienia nieruchomości i obserwować kształtowania miasta w różnych epokach."

(*Rezultaty...*, ibid. pp18-19)

("Only by eliminating the influence the combined area of streets and squares in various districts has on the mean number of properties calculated in relation to a territorial area is it possible to attribute the real causes lying behind greater or smaller groupings of properties shaping the city at various periods").

42. The census publication recognised 2 groups of suburban districts which had already undergone a degree of urban development :

1. a broad belt stretching from the Warsaw-Vienna Railway lines to the Vistula escarpment south of the Main City; ie Ochota and Mokotów municipal districts (XXIII, XVI);
2. the northern, rightbank wooden districts of Pelcowizna, Targówek and Bródno (XVIII, XXIV, XXV)

Ibid. p.21ff

43. e.g. A. Hans Stephan. *Städtebau und Verkehrsentwicklung, Berlin und seine Bauten, Teil II : Rechtsgrundlagen und Stadtentwicklung*, Berlin-Munich 1964 (incl. map "Bevölkerungsentteilung von Gross Berlin im Jahren 1939", p.50);
- B. H.Louis. Die geographische Gliederung von Gross Berlin, *Länderkünstlerische Forschungen*, Festschrift N.Krebs,pp.46-71 Stuttgart 1936;
- C. H.Bobek, E.Lichtenberger. *Wien : Bauliche Gestalt und Entwicklung seit der Mitte des 19.Jahrhunderts*, Graz 1966;
- D. Wien II. Verbauung und Wohnungsstruktur, *Oesterreich Atlas*, Oesterreichischen Akademie der Wissenschaften, Vienna 1960;
- E. F.Loyer. Le tissu urbain parisien des XIXe. et XXe.

siècles (I Plan), *Paris XIXe. siècle : l'immeuble et la rue*, Paris 1988;

F.-- Administrative County of London Development Plan 1951. Analysis, (Fig.6 on p.29), London 1951.

44. "Dane jakie posiadamy o powierzchni ulic i placów Warszawy są niedokładne".  
("The data in our possession concerning the surface area of streets and squares is unreliable.")  
"Sprawozdania Magistratu za rok 1916 nadmienią, że władze rosyjskie wywoziły odnośne dokumenty"  
("The City Council report of 1916 suggests the Russian authorities removed relevant documents"; ie prior to the evacuation in August 1915  
*Rezultaty...ibid*, p.18
45. e.g. "Rocznik statystyczny magistratu Miasta Warszawy. Rok 1910, Wydział Statystyczny Magistratu Miasta Warszawy, Warsaw, 1911.  
(Population statistics, including mortality and birth rates, religious denominations according to "cyrkul" municipal district, recorded cases of contagious diseases etc., but no data on housing conditions, building projections or related.)  
Note : building statistics were also not contained in interwar municipal statistical publications; cf J.Cegielski. *Stosunki mieszkaniowe* op.cit.,p.232
46. The highest population densities were recorded in Grzybów, Mirów, Leszno and Muranów commissariats until 1943/44; cf.J.Cegielski *Stosunki mieszkaniowe* op.cit., "Tabela 55 p.277;  
T.Limanowski. *Tymczasowe wyniki spisu ludności w Warszawie z dnia 9 grudnia 1931r.*, Kronika Warszawy 1931r. 9-12 s.11
47. H.Radziszewski *Warszawa* (Vol.II); expressing the modernist social reformer's angst in a Polish context :  
"Z takiego obecnego ustroju płynie, oczywiście, rozpaczliwy stan rzeczy. W stolicy kraju naszego pomyślano należyście ani o środkach komunikacji ani o należyście zorganizowanej dobroczynności publicznej, nie ma rzeźnia, nie ma należytego dozoru nad odżywieniem się miasta, nie ma bibliotek miejskich, jest wreszcie



Warszawa miastem analfabetów"

("Uwagi wstępne", pp.1-5)

("The appalling state of things has naturally resulted from the present situation" (ie 1913) "In the capital city of our country no real thought has been devoted to public transport or properly organised welfare services, there is no (municipal) slaughter house, nor is there any rational system of feeding the city, there are no municipal libraries; in effect, Warsaw is a city of illiterates.")

O.Sosnowski. *Powstanie, układ i cechy sieci ulicznej (...)*Warszawy, Warsaw 1930. (evolution of the street network, spatial growth orientations and lack of rational urban planning).

For vitriolic opinions, arguably reflecting popular Polish opinions of the time cf. A.Lauterbach. *Potrzeby estetyczne Warszawy* op.cit., (eg.p.5) :

"Warszawa należy do najbardziej zaniedbanych pod względem estetycznym miast Europy."

("Warsaw is one of the aesthetically most neglected cities of Europe")

Note : the author had in mind more than the physical appearance of streets, squares etc. In this little book published during the Great War, when it had already become clear that the period of tsarist rule was over, the question of Warsaw's identity as the chief city and political centre of a New Poland inevitably provoked much discussion, much of it vitriolic. This national passion reflected in part a strong resentment among Polish patriots that Warsaw did not suit their ideals of what a national capital should be. Some of the more revealing aspects of this resentment are expressed by Lauterbach, who, among many other things, demanded the city's "polonisation" ("*spolszczenie*"), without any apparent awareness of chauvenism, "after the long years of disaster and national humiliation". In a similar vein, S.Rychliński bombastically declared in his monograph published in 1936 : "Warszawa musi być polska w każdym znaczeniu słowa(...)" ("Warsaw must be Polish in every meaning of the word"), on the most spurious of grounds that

London was the hub of what he called "English civilisation" and Paris formed the heart of the "French nation". Neither Rychliński nor Lauterbach, as well as S.Orłowski, author of a very popular interwar guidebook Warsaw, had a great deal to say about the city's Jewish population.

48. "(Budyńkiem według zasad spisu jest) każda budowla stanowiąca całość w sensie technicznym"

*Rezultaty...ibid, p.15.*

49. It was noted that many service buildings in the suburbs registered as uninhabitable were nevertheless inhabited in 1919. This statistical discrepancy was inevitable, bearing in mind the fact migrant rural workers (not registered as permanent or temporary residents of Warsaw) would have been accommodated in barns or other farm buildings. In addition, it might be expected that suburban property owners, who accommodated paying tenants would have chosen not to declare this fact, in order to avoid paying income tax on the rent they received. (*Rezultaty...ibid p.12*).

## Chapter 2 DEVELOPED PROPERTIES AND APARTMENTS

50. "(...) pojęcie mieszkania w statystyce nieruchomości obejmuje najczęściej ogół pomieszczeń połączonych w jedną całość w czasie budowy domu."

*Rezultaty... ibid p.24 51. Rezultaty...tom II,część , (Chapter 4, "Wielkość mieszkań")*

52. *Rezultaty...ibid,"Streszczenie"("Conclusions"), p.112*

53. *Rezultaty T.1, cz.I, p.24 ("uchwała Wiedeńskiego Kongresu Mieszkaniowego")*

-- Note : the Vienna Housing Congress ("Der Wiener Wohnungs Kongres") of 1910 and its resolutions would seem to have lost any lasting significance, together with the city in which it was staged, as a result of the political changes brought about by the First World War. Nevertheless, the resolution did concretely define multi-apartment housing types in relation to smaller, potentially more affluent residential, as well as state, municipal or private institutional building forms.

Polish town councillors and other persons concerned with housing or general urban reform were presumably greatly influenced by developments in the Vienna of city mayor Karl Lueger as a centre of significant municipal town planning and public housing policies prior to 1914. The fact that categories of house sizes used in 1910 were introduced by Krzywicki and Strzelecki in relation to Warsaw's urban structure and housing conditions has lent the Vienna Housing Congress specific relevance to the thesis.

cf. H.Hassinger "Beiträge zur Siedlungen und Verkehrsgegrunde von Wien", *Mitterlagen der K.K. Geographischen Gesellschaft von Wien*, Vienna 1910;

---F.Czeike. *Geschichte der Stadt Wien*, Vienna 1981;

---K.Schubert. "Wien", *Stadtentwicklung in West- und Ost-Europa* (ed.K.Friedrich), Berlin-New York 1985, pp.372-457.

54. "kamienice koszarowe" is a direct translation of the German "Das Kasernenhaus".

55. J.H.Geist and K.Kürvers, 'Das Berliner Mietshaus' op.cit.,p.220.

56. R.E.Dickinson. *The West European City*,pp.487-501, London 1960

Note : the author referred in relation to Germany and parts of France to varying forms of tenements ("*Mietskhuse*"), using the terms "*Kastenhaus*" and "*Etagenhaus*", although he did not stipulate that the former (in large cities such as Berlin, Hamburg and Breslau (Wrocław)) on the whole accommodated larger numbers of people and consisted of greater numbers of apartments, invariably exceeding 20 flats, than the latter (predominating in smaller German cities such as Halle, Stettin (Szczecin), Kiel and Königsberg (Kalinigrad)).

---E.Lichtenberger. The nature of European urbanism, *Geoforum* 4 (1970);

---J.W.R.Whitehand. *The changing face of cities* (pp.108-'9), Oxford 1987.

---*Rezultaty*, tom I, część I, p.24

57. J.Roguska : *Kwartalnik Architektury i Urbanistyki* T.XXIII (1978)z.1-2; T.XXIV (1979)z.1; T.XXV (1980)z.3-4; T.XXXI (1986)z.2; T.XXXIII (1988)z.4;  
*Studia i Materiały do Teorii Historii Architektury i*

*Urbanistyki*, T.XVI(1982);

*Kronika Warszawy* 4/48(1981), 3-4/71-72(1987)

Architektura i budowa mieszkaniowa w Warszawie II połowy XIX wieku i na początku XX wieku. Architektura willowa. *Prace naukowe. Budownictwo*, z.92, Architektura, Politechnika Warszawska, Warsaw 1986.

(Each of these studies includes a summary text in English)

S.Herbst. *Architektura Warszawy 1840-1910*, Nadbitka ze Sprawozdań TNW, wydział II Rok 1947, z.6

E.Szwankowski. *Warszawa. Historia architektury i urbanistyki*, Warsaw 1952

J.Cegielski. *Stosunki mieszkaniowe* op.cit.

A.Szczypiorski. *Warszawa, jej gospodarka i ludność w latach 1832-1864*, Wrocław 1962

M.Kwiatkowski. *Architektura mieszkaniowa Warszawy. Od wojen szwedzkich do powstania listopadowego*, Warsaw 1989

Also cf. T.Jaroszewski, M.Kwiatkowski, M.Sujecki, Z.Walkiewicz in periodicals *Kronika Warszawy*, *Spotkania z zabytkami* and *Stolica*

- 58 "W Warszawie na jedną posesję wypada przeciętnie 22.18 mieszkania. Już ta najogólniejsza przeciętna wskazuje na przewagę domów koszarowych w mieście."

(*Rezultaty* *ibid.*, p.24)

59. *Ibid*, tom II, część I, chapter 2 ("Podział lokali według sposobu użytkowania", p.4)

60. On the grounds that events between 1914 and 1918 led to a quite dramatic drop in Warsaw's population, it has been assumed that the larger proportion of vacant apartments recorded in 1919 had been vacated by families evacuating the city after August 1914. In view of the serious housing shortage arising during the study period, the number of habitable apartments which stood vacant in 1914 has assumed to have been minimal, bearing in mind a mere "incompleted" potentially habitable properties in inner city commissariats I-XV was recorded by the Census commission in 1919 (ie a figure corresponding with the number of buildings still under construction in 1914 and not completed or made tenantable during the war).

*Ibid.*, Tom I, cz.II ("Tablica" I).

- S.Toeplitz. *Kłeska mieszkaniowa*, Kraków 1913.
61. Ibid., "Tablica II" ("Podział nieruchomości według liczby mieszkań")
62. ibid ("Nieruchomości handlowe-przemysłowe-publiczne, gospodarcze" etc. "niezamieszkałe")
63. ibid., T.I, cz.II, p.25 and T.II, cz.I, p.112 (Streszczenie): "koszarowość" may be literally translated as barrackslikeness
64. e.g. PARIS : R.E.Dickinson. The Limits of Greater Paris (in) *The West European City* op.cit., pp.234-'5  
 A.Sutcliffe. *The Autumn of Central Paris. The defeat of town planning 1850-1970*, London 1970  
 VIENNA : E.Lichtenberger. *Die Wiener altstadt : von der mittelaltlichen Bürgerstadt zur City*", Vienna 1977  
 F.Wulz. "Vorwort" and functional zones model, *Stadt der Veränderung* op.cit.  
 ST.PETERSBURG : J.Bater The Culmination of Capitalism (Chapter 5), *St.Petersburg, Industrialisation and Change*, London 1976;  
 BERLIN : H.Pitz, W.Hofmann, J.Tömmisch. Die Entwicklung der ZBW im 19.Jahrhundert, *Berlin W.- Geschichte und Schicksal einer Stadtmitte*, pp.37-53, 113-'27 and 153-'61;  
 H.Matzerath (in) *Metropolis 1890-1940* op.cit., pp.289-304;  
 LONDON : F.Metcalf. *Victorian London* (pp.65-'9), London 19  
 P.L.Garside West End, East End : London 1890-1940, *Metropolis...*op.cit., esp. pp.229-'32  
 D.J.Olsen. Villa Suburbia (London), *The City as a Work of Art*, London-Newhaven, 1986, pp.65-'9 (cf. also in reference to Parisian "Banlieux" and Viennese "Ausserorten");  
 UNITED STATES : E.W.Burgess. The Growth of the City (in) R.E.Park, E.Burgess, R.D.McKern. *The City*, Chicago 1925  
 C.Lancaster. *Historic Brooklyn Heights*, republished New York City, 1979.
65. "Nieruchomości zabudowane koszarowo dominują w śródmieściu" ("Properties built in the barracks form predominate in the Mid-Town")  
 Rezultaty ibid., p.26
66. A.Ciborowski. *Warsaw. Destruction and Reconstruction*, Warsaw

1969 : The City's Destruction, pp.43-63

A Warsaw Calendar (1945-1967), pp.65-79

67. *Rezultaty*, *ibid.*, p.112 (Conclusion)

68. Interwar publicists and novelists :

S.Kuszelewski, K.W.Zawodziński, J.Michałowski, F.LEWICKI,  
Z.UNIŁOWSKI, J.R.Giebling, A.SOBANSKI, A.Obarski,  
P.Gojawiczyńska J.Dąbrowski, E.Szemplińska-Sobolewska,  
J.Budzyński-Tybicka, "H.K."(anonymous), W.Wasilewska,  
P.Zbar, A.Rudnicki, G.Jarecka, "A.W-icz"(anonymous),  
K.Muczałówna, H.Szylllerowa, M.Paryńska, W.Jakubowski,  
J.Zgórski, L.Pietrzak, W.Borudecka, Z.GOZDZIEJEWSKA,  
"J.J."(anonymous), A.Kobyłecki, K.Wrzos, H.Rubinrant,  
W.Grubiński, B.SINGER, T.Waski, A.Janowski, K.Konarski,  
M.Kunczewiczowa, F.Goetel, T.Makowiecki, W.Wohnout, W.Melcer,  
S.Kunelowski-Rajska, A.Dyगत, W.Hulewicz, S.GODLEWSKI,  
S.Sempołowska, M.DĄBROWSKA, J.E.Skiwski, T.Zeleński-Boy,  
S.Karpiński.

(Authors quoted in the thesis are written in capital letters)

cf. also B.PRUS (ALEKSANDER GŁOWACKI, 1845-1912) - novels, short stories, chronicles, articles (especially in the Warsaw daily *Kurier Warszawski*) and memoirs.

69. *Rezultaty* op.cit. vols.I and II :

Volume I : "cartograms" ("*kartogramy*") I-XVI

Volume II : "cartograms" ("*kartogramy*") I-X

(based on tables I-XLVIII in part I and I-L in part II)

70. D.Kobielski. *Warszawa na fotografiach XIX wieku*, Warsaw 1972, reprinted 1982;

E.Kupiecki. *Warszawa*, Warsaw 1970;

K.Lejko, J.Nichlewski. *Warszawa na starej fotografii*, W-w 1978;

*Warszawa na starej fotografii* (based on articles with photographs published in *Stolica* periodical by A.Jeżewski), Warsaw 1968;

E.Borecka. *Portret Warszawy lat międzywojennych*, Warsaw 1974

Numerous photographic exhibitions relating to pre-holocaust Warsaw have been held since 1945, especially in the Warsaw History Museum (*Muzeum Historyczne Warszawy*). One of the more recent and most revealing was organised, however, in

the National Museum in Warsaw (*Muzeum Narodowe w Warszawie*) by the art historian, curator of Łazienki Park and member of the Polish Parliament, Marek Kwiatkowski (1987, no catalogue);

cf. Warsaw History Museum since its foundation in 1912.

71. *Atlas of Warsaw's Architecture* op.cit., p.28  
M.Kwiatkowski. *Architektura mieszkaniowa Warszawy* op.cit.
72. T.Jaroszewski. "Architektura rezydencjonalna wielkiej burżuazji warszawskiej w latach 1864-1914", *Architektura XIX-ego wieku. Materiały sesji Stowarzyszenia Historyków Sztuki*, Warsaw 1969.
73. B.Raczkowski. Północno-zachodnia dzielnica Muranów, *Wielkomiejski rozwój Warszawy* op.cit., pp.235-'54  
---B.Singer *Moje Nalewki* (Author's memoirs from his childhood in the Nalewki district), Warsaw 1959;  
---P.J.Martyn. The Undefined Town within a Town (The Western Districts), *Polin. A Journal of Polish-Jewish Studies*, Vol.III, Oxford 1988 (pp.31-34).
74. W.Pruss. Zachodnia dzielnica przemysłowa, *Wielkomiejski rozwój Warszawy* op.cit., pp.205-'34;  
---I.B.Singer. *The Family Moskat*, New York 196 ;  
---S.Kowalska-Glickman. Na targach XIX-owiecznych Warszawy , *Kronika Warszawy* (1984);  
---P.J.Martyn. Undefined Town...op.cit. pp34-'6.
75. *Rezultaty...*tom I, część I, p.26.
76. J. Roguska. Architektura willowa op.cit.
77. *Wielkomiejski rozwój Warszawy...*op.cit.,pp.64'68, incl.map *Warszawy powstałe historycznie i ukształtowane funkcjonalnie w II połowy XIX wieku i na początku XX*".
78. I.Pietrzak-Pawłowska. Ewolucja śródmieścia Warszawy w latach 1864-1939, *Dzieje śródmieścia*, Warsaw 1975 (pp.176-'7);  
---K.Dumała. Dzielnice Warszawy...op.cit.,pp.71-73.
79. "(...) zwana grupa okręgów północno-zachodnich części śródmiejskiej należa do niej okręgi VII, V, VIII, VI i III (...), licząc więcej niż po 30 mieszkań na nieruchomości, tworzą dzielnice miasta najbardziej koszarowa."  
"the group of districts known as the north-western Mid-Town area, composed of *arrondissements* VII, V, VIII, .

VI and III(...), counting 30 flats per property, form a single urban district of the most pronounced barracks-like (structure) in the city."

*Rezultaty*, *ibid*, p.25.

- W.Pruss. *Wielkomijski rozwój Warszawy* *op.cit.* p.207.
80. *Ibid.*, "Tabela"37 ("Przemysł dzielnicy łazienkowskiej na tle przemysłu warszawskiego") p.182;
- I.Pietrzak-Pawłowska. *Dzieje ewolucji śródmieścia* *op.cit.* p.177
81. Monographs have been published from the early-1970s on the following palaces and more affluent urban mansions :
- Z.Bania, T.Jaroszewski. *Pałac Rady Ministrów*, Warsaw 1980;
- S.Małachowski. *Pałac Krasiniskich*, W-w, 1972;
- A.Bartczakowa. *Pałac Paca*, W-w, 1973;
- M.Kwiatkowski. *Pałac Raczyńskich*, W-w 1980;
- S.Lorentz. *Pałac Prymasowskich*, W-w 1982;
- I.Malinowska. *Pałac Sapiechów*, W-w 1972;
- T.Jaroszewski. *Pałac Lubomirskich*, W-w 1971;
- K.Zawadzki. *Dom pod Krolami*, W-w 1973;
- M.Kwiatkowska. *Pałac Tyszkiewiczów*, W-w 1973;
- M.Kwiatkowska, I.Malinowska. *Pałac Potockich*, W-w 1976;
- A.Bartczakowa, I.Malinowska. *Pałac Branickich*, W-w 1974;
- J.Mielieszko. *Pałac Czapskich*, W-w 1971;
- M.Kwiatkowski. *Pałac Morsztynów*, W-w 1971;
- T.Grygiel. *Pałac Małachowskich i Dom Roeslera*, W-w 1982;
- T.Jaroszewski. *Pałac Kosakowskich*, W-w 1977;
- A.Rottermund. *Pałac Błękitny*, Warsaw 1971.
- For general appraisals cf.:
- J.Chróścicki, A.Rottermund. *An Atlas of Warsaw's Architecture* *op.cit.*;
- T.Jaroszewski. *Warsaw Palaces*, Warsaw 1986;
- S.Kieniewicz. *Władze państwowe i miejskie (1795-1831), Warszawa w latach 1795-1914*, *op.cit.*, pp.35-'7.
82. B.Prus. *Lalka*, Warsaw 1890 (translated as "The Doll").
83. T.Wyderko. *Urbanizacja i zagospodarownie prawobrzeżnej Warszawy w okresie od XVI do początku XIX wieku*, (and)
- E.Szwankowski. *Praga w latach 1814-'80* (in) *Dzieje Pragi*, Warsaw 1973;
- J.Berger (in) *Wielkomijski rozwój Warszawy*, *op.cit.*,



pp.258-'65

84. *Wielkomiejski rozwój Warszawy* op.cit. p.66, p.67, p.270;  
---K.Dumała. *dzielnice Warszawy* op.cit., pp.78-'9;  
---J.S.Bystroń. *Warszawa*, Warsaw 1949, p.250 and p.283;
85. *Rezultaty, Tom I, cz.II "Tablica II"*;  
---*Dzieje Mokotowa*, Warsaw 1972 (esp. pp.37-60);  
---*Dzieje Woli, W-w 1974* (esp. pp.119-'36);  
---*Dzieje Ochoty, W-w 1973*;
86. *Soliborz, wczoraj, dziś, jutro*, Warsaw 1970;  
---T.Jabłoński. *Północny trakt Warszawy*, W-w 1959;  
---Ł.Heyman. *Nowy Soliborz 1918-1939 : architektura i urbanistyka*, W-w 1976 (esp. chapter II : *Dzieje rozwoju Soliborza w wiekach XVIII i XIX*).

### Chapter 3. POPULATION DENSITIES.

87. *Rezultaty...tom I, część I, ("liczba mieszkańców")*, p.30.
88. *Pierwszy powszechny spis Rzeczypospolitej Polskiej z dnia 30 września 1921r.* (in *Statystyka Polski, t.14*, Warsaw 1926).
89. "Aby uchwycić związek między mieszkaniem i ludnością pytano w czasie spisu mieszkań nie o liczbę osób obecnych w danym dniu, lecz o wszystkich stale mieszkających w określonym mieszkaniu."  
*Rezultaty...ibid.*, p.30.
90. J.Cegielski. *Stosunki mieszkaniowe* op.cit., p.171, pp.232-'9;

Note: the fact that metropolitran Warsaw's population had already clearly surpassed the 1 million mark is very often ignored in studies of the city's demographic history in modern times. Official sources from before 1916 record only the number of people living within the pre-1916 administrative area, thereby lending the false impression that Warsaw's population between 1914 and 1921 remained relatively stable. A failure to take into account the suburban population before the 1916 incorporation may lead to the very wrong interpretation that between 1910 and 1921, for example, the urban populace actually increased,

when in fact the official national census recording of 909,700 was substantially lower than the well-founded estimation for the year 1910 made by M.Nietyksza of 916,153. Moreover, the suburbs in 1921 recorded a mere 130,629 inhabitants; i.e. actually less than in 1910 when no account had been taken of the population of Nowo Bródno and Felcowizna suburban districts..

Compare : Dangshatt in *Stadtentwicklung in West- und Ost-Europa* ("Warszawa").

91. The reversal of demographic trends has been a very significant occurrence in Eastern European urban history during wartime or periods of extreme economic and social hardship :  
cf. K.Dunin-Wasowicz. *Warszawa w latach pierwszej wojny światowej*, Warsaw 1974;  
L.Kochen. *Russia in Revolution*, London 1967;  
A.Polonsky, "The emergence of an independent Polish state" (in) *The History of Poland since 1863* op.cit., pp.112-'25.
92. "Chociaż nasza ogólna liczba może być niższą od rzeczywistej, stosunkowe i porównane wyniki zachowują całą swą wagę i dają obraz możliwie zbliżony do prawdziwego."  
*Rezultaty*, ibid., p.30.
93. Ibid. p.30 :  
"W okregach podmiejskich pewna część ludności opuszcza zwykle latem mieszkania, udając się na roboty rolne, i to wpłynęło zapewne w zmniejszenie naszej liczby mieszkańców."  
(*"An element of the populace in the suburban districts moves away each summer to take part in field labour, and this undoubtedly influenced our demographic estimations by reducing the overall population"*).
94. *Atlas of Warsaw's Architecture...*op.cit. p.27 (cf. map, "System of squares in 19th.century Warsaw").
95. S.Herbst. "Droga do dworca kolejowego" (in) *Ulica Marszałkowska*, op.cit., pp.71-111;  
I.Pietrzak-Pawłowska."Ewolucja śródmieścia" (in) *Dzieje śródmieścia*, op.cit.;

- K.Dumała. "Dzielnie Warszawy..." op.cit.;
96. S.Herbst *Ulica Marszałkowska*, op.cit. pp.112-'49 ("Ulica burżuazyjna 1870-1914");
97. K.Dunin-Wasowicz. "Warszawa w latach I wojny Światowej" (in) *Warszawa powstaniowa 1864-1918*,Warsaw 1968 (pp.33-49); ibid. J.Milewski. "Przemiany demograficzne i warunki życia ludności Warszawy u schyłku i wojny światowej" (pp.51-97 );
98. M.M.Drozdowski, A.Zahorski."Pierwsza wojna światowa 1914-1918" (in) *Historia Warszawy*, Warsaw 1974 (pp.223-'71).
99. J.W.R.Whitehand. "Fringe Belts"(Chapter 5 in) *The changing face...*op.cit.;
- Note: the zone in transition is a very basic functional zone in pre-1914 Warsaw, constituting a belt of semi-developed districts, only partially embraced by water supply and other public facilities, if indeed at all, with industrial location strongly emphasised and residential building dominated by smaller house types (under 20 flats or isolated tenement houses of 21-c. 40 small apartments), including numerous wooden cottages.
100. J.Cegielski concludes there was a colossal fall of between 75% and 84% in industrial production in 1914-'18; cf. *Stosunki mieszkaniowe...*op.cit. p.163; M.Nietyksza. *Ludność Warszawy na przełomie XIX i XX wieku*, Warsaw 1971;
101. *Wielkomiejski rozwój Warszawy* op.cit. pp.66-'7; E.Szwankowski.*Warszawa* op.cit. pp.230-'36, 237-'41, 246-'50; H.Janczewski. *Warszawa ; geneza i rozwój inżynierii miejskiej*, Warszawa 1971; A.Słoniowa. *Początki nowoczesnej infrastruktury Warszawy*, Warsaw 1978.
102. *Wielkomiejski rozwój Warszawy* op.cit. pp.78-87; E.Kowska-Glickmann. "Na targowiskach..."op.cit.; Z.Goździejewska. "Szukam służby"(in) *Niepiękne dzielnice* op.cit.pp.340-'43 (also in *Jesteśmy w Warszawie* op.cit. p.279); H.K.(anonymous). "Pałace nędzarzy" (in)*Niepiękne...* op.cit pp.148-'52 (originally published in *Robotnik*, 1934, nr.191.
103. Poland had been in an unofficial state of war with Soviet

Russia since February 1919, while on the other hand some Polish conscripts in the former tsarist army had yet to return home;

cf. Polonsky in *The History of Poland since 1863* op.cit.113-'5.

(Note : tsarist military conscription had been obligatory for all young men whose families could not afford the necessary bribe to the necessary officials. Army service was not reduced to four years until the reign of Nicholas II (1894-1917), and the Russian High Command was wise enough to deploy its Polish conscripts far away from ethnically Polish or semi-Polish provinces within the Empire. The Russians evacuated some 800,000 people in August 1915 in connection with the retreat from Warsaw, which was immediately preceded by a paranoid wave of civilian arrests).

104. R.French. "Moscow. the Socialist Metropolis. (table 13.1, p.359), *Metropolis 1890-1940* op.cit.
105. K.Dunin-Wasowicz and J.Milewski (in) *Warszawa powstaniowa*, op.cit.
106. M.Nietyksza in *Wielkomięjski rozwój Warszawy* op.cit. pp.70-'2.
107. This is a regular event in Warsaw's more recent history; the same phenomenon has been observed in the wake of the Second Polish Partition, when the population fell from c. 120,00 (1792) to 68,000 (1806), while the number of Jewish inhabitants actually rose :  
cf. K.Dunin-Wasowicz."Ludność Warszawy" (in) *warszawa powstaniowa* op.cit. p.42;  
A.Eisenbach. "Żydzi warszawscy i sprawa żydowska w XVIII wieku" (in) *Historia Warszawy osiemnastego wieku*, Z.II, Warsaw 1975;  
"The Jewish Population of Warsaw at the turn of the 18th.century. (in) *Polin*, vol.III op.cit., pp.46-77.
108. B.Singer. *Moje Nalewki* op.cit.;
- S.Szenic. *Pitival warszawski*, t.II (1795-1014), parts I and II, Warsaw 1958;
- M.Ciechocińska. "Przeobrażenia w strukturze zawodowej Warszawy na podstawie materiałów spisów ludności w okresie 1897-1960." (in) *Socjologia zawodów* (ed. A.sarapatin),

- Warsaw 1965.  
H.Krahelska, S.Prus. *Życie bezrobotnych. Badania ankietowe*,  
Warsaw 1933
109. cf., among others, "H.K.", F.Lewicki and "A.W-icz" in  
*Niepiękne dzielnice* op.cit.
110. M.Nietyksza. *Ludność Warszawy* op.cit. (Annex table "Ludność  
ogółem");  
W. Pruss ("Zmiany strukturalne przemysłu" - Chapter 4,  
(in) *Rozwój przemysłu warszawskiego* op.cit.;  
*Dzieje : Mokotowa, Ochoty, Woli, Pragi* (incl. Bródno etc.)  
and *Soliborz, wczoraj, dziś, jutro* op.cit.  
K.Dumała. "Dzielnice Warszawy..." op.cit. pp.75-'8;  
J.Cegielski. *Stosunki mieszkaniowe* op.cit. pp.72-'4;  
S.Misztal. "Warszawski Okręg Przemysłowy (in) *Studia Komitetu  
Przestrzennego Zagospodarowania kraju*, PANK PZK t.III,  
Warsaw 1962;  
*Historia Polski* (PWN), TomIII, topographical materials :  
(map) "Warszawski okręg przemysłowy" (1869)  
(map) *ibid.* (1900). Warsaw 1967
111. M.Nietyksza in *wielkomiejski rozwój Warszawy* op.cit.  
pp.88-95 ("Rozwój demograficzny strefy podmiejskiej").
112. Note : representations and petitions in the name of the  
inhabitants of Mokotów addressed to the City Council  
requesting, the district's incorporation into Warsaw became  
increasingly frequent during the 1890s (cf "Mokotów..." in  
Chapter 7).
113. R.Chomać-Klimek. "Industrializacja Gubernii Warszawskiej na  
początku XX wieku" (in) *Wielkomiejski rozwój Warszawy*  
op.cit.pp.271-'86.
114. *Zarząd Powiatowy Warszawski*, AGAD (Warsaw), sygn.  
"tablica"-13;
115. M.Nietyksza (in) *Wielkomiejski rozwój Warszawy* op.cit.  
("tablica" -6 : "Ludność gmin warszawskich w latach  
1880-1913").
116. J.Cegielski. *Stosunki mieszkaniowe* op.cit. ("tablica"-24 :  
"Ludność i zasoby mieszkaniowe w latach 1891-1914 (I.VIII),  
p.129).
117. The population would have fallen almost immediately  
following the outbreak of war as the tsarist authorities

- began immediately to forcibly evacuate state employees, including factory workers of state-owned plants, to the Russian interior (in contrast to the Kościuszko Uprising of 1794 when, under siege conditions, anywhere between 150,000 and 200,000 people were residing or seeking refuge within the customs wall);
- cf. K.Dunin-Wasowicz, J.Milewski (1914-'18) and A.Eisenbach (1768-'95), op.cit (in note 107).
118. M.Nietyksza (in) *Wielkomijski rowoj Warszawy* op.cit. ("Wykres" 3, p.89).
119. *Rezultaty*, t.I, cz.II, pp.22-'3;  
 ibid.,cz.II ("tablica"II : "Podział nieruchomości według czasu ich budowy i przebudowy");
120. J.Cegielski *Stosunki mieszkaniowe* op.cit. p.72;  
*Rezultaty* t.I, cz.I, p.21;  
 cf. E.Szwankowski :  
 "W latach 1911-1914 przedmieścia zabudują się szczególnie intensywnie. Liczba domów w tych kilku latach zwiększyła się około 25%."  
 ("The suburbs underwent particularly intensive development between 1911 and 1914 when the number of houses increased by around 25%.")  
 (*Warszawa* op.cit. p.236).
121. Zbiory Przyborowskiego op.cit., vol.XV, p.303;  
 S.Szymkiewicz. "Inkorporacja przedmieść Wielkiej Warszawy w 1916r." (in) *Kronika Warszawy*, nr.7 (1930).
122. *Piervaya vsheodshchaya pieriepis nasielenia Russiyskoj Imperii 1897 goda*, vol II, St.Petersburg 1904;  
 M.Nietyksza ("Wykres-" 2, p.80, in) *Wielkomijski rozwój Warszawy*, op.cit.
123. T.Lepkowski. *Początki klasy robotniczej Warszawy*, Warsaw 1956;  
 J.Durko. *W pracy i w walce . wspomnienia robotników warszawskich z przelomu XIX i XX wieku*, Warsaw 1970.
124. M.Nietyksza (in) *Wielkomijski rozwój Warszawy*, op.cit. pp.84-'5.  
 Z.Komanowa (in) *Dzieje Mokotowa* op.cit. ("Mokotów, jego klasa robotnicza i ruch robotniczy (przed 1939r.)", pp.89-129.

125. S.Szymkiewicz."Inkorporacja..."op.cit. ("Gmina czyste");  
J.Cegielski.*stosunki mieszkaniowe* op.cit. pp.163-'4..
126. S.Herbst (in) *Dzieje mokotowa* op.cit. p.53.
127. K.Dunin-Wasowicz :  
"Nie jesteśmy w stanie podać liczby ludzi, którzy opuścili Warszawę przed wkroczeniem wojsk niemieckich. Dalszym wynikiem, który wpłynął na zmniejszenie się ludności miasta, była emigracja na wieś lub do innych miast spowodowana przede wszystkim zmniejszeniem się liczby miejsc pracy w mieście i trudnościami z wyżywieniem."  
(*Ludność Warszawy w latach 1914-1918* op.cit. p.38)
128. ibid. "Tabela I", p.37;  
J.Milewski, op.cit. "Tabela 2", p.53.
129. *Rezultaty* ibid., pp.30-'1;  
ibid.,t.II, cz.I (Chapter 2);  
J.Cegielski. *Stosunki mieszkaniowe* op.cit. ("Tab.75",p.282).
130. K.Krzczkowski."Kwestia mieszkaniowa w miastach polskich"  
*Związek Miast Polskich, Warsaw 1930*;  
M.Kaczorowski. "Rentowność domów czynszowych w Warszawie"  
*Kronika Warszawy*,nr.3 (1931).
131. *Paris Projet*, no. 23-24 ("Paris-Rome, Roma-Parigi : Protection et mise en valeur...").
132. (My own calculations, based on demographic data for "Alt" and newly-incorporated suburban districts 7 - 20 in 1920);  
cf. *Berlin und seine Bauten*, Teil II ("Rechtsgrundlagen und Stadtentwicklung", p.48).
133. F.Leyden. *Gross Berlin. Geographie der Weltstadt*, Berlin 1933.
134. J.Cegielski. *Stosunki mieszkaniowe* op.cit. ("Tabela"-56 : "Rozwoj ludnościowy dzielnic Warszawy w latach 1921-'31 i 1931-'38", p.228);  
ibid."Lokalizacja budownictwa. Rozbudowa przedmieść"  
pp.241-'7.
135. J.F.Geist,K.Kürvers. *Das Berliner Mietshaus 1862-1945*  
op.cit. "Die räumliche erweiterung der Stadt" (1862-1940),  
pp.142-'69;  
"Die bauliche Erweiterung der Stadt" (diitto),pp.316-'87;  
(also) "Bauphase" plans 1 (1863-'8) to 5 (1909-'25), in  
**Chapter 8.**

Chapter 4 : THE CITY OF INTENSIVE TENEMENT PROPERTY BUILDING

136. *Rezultaty* t.II,cz.I, Chapter 2 ("Podział lokali według sposobu użytkowania"; i.e. subdividing apartments according to function(s), pp.4-9.
137. W.Pruss. *Rozwój przemysłu warszawskiego 1864-1914* op.cit.; P.A.Orlov. *Ukazatel fabrik i zavodov jevropejskoj Rossii z Tsarstvom Polskim i Wiewelkim Kshazhestvom Finlandskim*, St.Petersburg, 1881; Orlov *ibid.*; subsequent publications for "European Russia" and the Polish Kingdom for the years 1890 and 1895; L.Jeziorański. *Księga adresowa przemysłu fabrycznego w Królestwie Polskim*, Warsaw 1905.
138. W.Pruss *ibid.* (esp. Chapter 6 : "Lokalizacja przemysłu warszawskiego"; ie Industrial location in Warsaw).
139. *Rezultaty* *ibid.*, chapter 4 ("Wielkość mieszkań"; ie Apartment sizes, pp.11-23).
140. Compare S.Dziewulski, H.Radziszewski (1913-'15) with post-1945 researchers of Warsaw's large-scale urban development in the Industrial Age : (Dziewulski-Radziszewski), *Warszawa*, op.cit., vol.I, pp.408-'10; (I.Pietrzak-Pawłowska), *Dzieje Woli* op.cit. pp.109-'18; (M.Nietyksza, W.Pruss), *ibid.* "Wola w okresie przemian kapitalistycznych 1850-1914. Rozwój urbanistyczny. Ludność. Przemysł"; (S.Herbst), "Mokotów od połowy XVIIw. do 1939r. (in) *Dzieje Mokotowa* op.cit.; (E.Szwankowski), "Praga w lata 1814-1880" (in) *Dzieje Pragi* op.cit.
141. *Ibid.* Szwankowski, Herbst Pietrzak-Pawłowska, Nietyksza, Pruss (in) *Dzieje : Woli, Mokotowa, Ochoty, Pragi and Soliborz, wczoraj, dziś, jutro* op.cit.; (also) J.Kołodziejczyk. "Przemysł i rzemiosło praskie przed 1939r.", *Dzieje Pragi* op.cit.;  
Published information on the northern suburban districts in former Bródno (East Bank) and Młociny (West Bank) parishes is fragmentary and scattered over various monologues, periodicals as well as the ever-important but inevitably



- personal memoirs, diaries, biographies etc.  
 cf. particularly J.Berger in *Rocznik Warszawy* :  
 "Z dziejów Targówka", VII (1966), pp.63-85  
 (also) "Z dziejów Grochowa" and "(...) Saskiej Kępy;  
 M.Kwiatkowski."Powązki", *Rocznik Warszawy* IX (1969), pp.157;  
 In periodicals cf. especially the weekly (for a time  
 bi-monthly) *Stolica* (1946-1990); eg in connection with the  
 redevelopment of Bródno, the Felcowizna and Targówek from  
 the mid-1960s into the 1970s (among many others cf.  
 nr.18/1117, r.XXIV (1969).
142. H.Szwankowska. "Drewniana zabudowa mieszkaniowa Warszawy  
 Oświecenia" (in) *Warszawa XVIII wieku*, Z.2 (1973).
143. J.Cegielski *Stosunki mieszkaniowe* op.cit. ;  
 pp.207-'21 ("Polityka gruntowa");  
 p.253ff ("Dziki budownictwo").
144. J.Berger. "Dzieje Grochowa" (in) *Rocznik Warszawy*, VI (1965)  
 pp.48-87.
145. Population of Mokotów *arrondissement* : 1919 - 19,877  
 1931 - 38,057;  
 (and) Marymont *arrondissement* : 1919 - 11,332  
 1931 - 39,871.
146. J.Berger. "Z dziejów Saskiej Kępy", *Rocznik Warszawy*,  
 pp.321-'58.
147. J.Cegielski. *Stosunki mieszkaniowe* op.cit.p.218ff and  
 illustrations 73, 74 ("Shelters for the homeless");  
*Rezultaty* vol.I "Wstęp" (Introduction).
148. A.B.Gallion, S.Eisner. *The Urban Pattern. City Planning and  
 Design*, New York 1985.
149. I.Pietrzak-Pawłowska. "Ewolucja Śródmieścia w latach  
 1864-1939", (in) *Dzieje Śródmieścia* op.,cit., pp.165-'87;
150. cf.Leslie and Polonsky in *The History of Poland since 1863*  
 op.cit. pp.40, 70, 146;  
*Polin : A Journal of Polish-Jewish Studies*, vol.III (devoted  
 to Warsaw's Jewish community from the middle ages to 1943),  
 Oxford 1988.
151. H.Boberg, E.Lichtenberger. *Wien : Bauliche Gestalt und  
 Entwicklung seit der Mitte des 19.Jahrhunderts*, op.cit.  
 (building types are spatially defined in "Tafel" I);  
 F.C.Wulz. *Stadt in Veränderung. Eine architektur-politische*

- Studie von Wien in den Jahren 1848-1934* op.cit.  
(especially chapter XV, "Mietshaustypologie : Nobelmiethaus und Bassenahaus", pp.243-'78);  
(in English) cf. D.J.Olsen (in) *The City as a Work of Art*, London-New Haven 1986, chapter 8 ("Inside the Dwelling"-under "The Viennese Wohnung"), pp.125-'31.
152. T.Jaroszewski. "Architektura rezydencjonalna wielkiej burżuazji warszawskiej w latach 1864-1914 (as an endeavour to present the most important aspects of this type of architecture during that period and as a recommendation for future research orientation)" (in) *Sztuka XIX wieku, (Materiały sesji Stowarzyszenia Historyków Sztuki)* op.cit.
153. Refer to compendium publications of interwar novelists and journalists in : [b]  
*Jesteśmy w Warszawie*, Warsaw 1938;  
*Niepiękne dzielnice*, Warsaw 1964.
154. D.J.Olsen. *The City* op.cit.p.146;  
Note : J.Cegielski investigated "overpopulated" and "not-overpopulated" flats on the basis of census data from 1921 and 1931 ; cf. *Stosunki mieszkaniowe* op.cit. "Mieszkania przeludnione - Mieszkania nieprzeludnione", "Tablica" 82, 83 (pp.292,293).
155. e.g. B.Singer *Moje Nalewki*, ("Stróże, służące, mamki"; ie "Gate-/Doorkeepers, domestics and nannies"), Warsaw 1959.
156. J.H.Bater. *St Petersburg, Industrialisation and Change*, London 1976.
157. E.Lichtenberger. *Die Wiener Altstadt : von der mittelalterlichen Bürgerstadt zur City*, Vienna 1977.
158. J.H.Bater. *St.Petersburg* op.cit.

Chapter 5 : THE INNER-URBAN CORE

159. *Wielkomięjski rozwój Warszawy...* op.cit., pp.66-'8;  
S.Kieniewicz *Warszawa...* op.cit. "Inkorporacje i podziały administracyjne" (1865-1914), pp.181-'4.  
Note : so strong is the perception of the restricting of Warsaw's spatial development before the 1916 incorporations to "within the toll gates" (set up in 1791 at the intersections of major arterial roads with the Customs Wall instigated by Crown Marshal Lubomirski), that M.M.Drozdowski in *Warszawa w latach 1914-1939* (W-w 1990) mistakenly defined the pre-1914 administrative borders as coinciding with the 1770 leftbank and rightbank city limits (cf. "Mapy" 2,3,4 and 5 in Chapter ("Rozdział") VII).  
E.Szwankowski (*Warszawa* op.cit.), S.Bystroń (*Warszawa* op.cit.) and S.Dziewulski with H.Radziszewski (*Warszawa* op.cit.) each point out, thereby underlining what amounts to a truism in 19th-century Warsaw's spatial development, that the administrative area altered minimally between the "watershed events" (*wydarzenia przełomowe*) of 1791 and 1918.
160. *Wielkomięjski rozwój Warszawy...* op.cit., pp.64-'6;  
K.Dumała. "Dzielnice Warszawy..." op.cit. (including map, "Dzielnice Warszawy na przełomie XIX i XX wieku").
161. S.Kieniewicz. *Warszawa* op.cit. p.241;  
E.Szwankowski *Warszawa* op.cit.;  
*Encyklopedia Warszawy*, (editor S.Herbst, Warsaw 1975), under entry "Bank Handlowy";  
*Zbiory Przyborowskiego*, op.cit. Tom V, s.280-'3 (article from contemporary, but unidentified, Warsaw newspaper in 1893 entitled "Ulica Włodzimierska").
162. E.Szwankowski. *Ulice i place Warszawy*, Warsaw 1970, under entry "Krakowskie Przedmieście" (cf. also "Miodowa", "Długa", "Podwale", "Kapitulna", "Bednarska" streets for CBD-B, as well as "Królewska", "Kredytowa", "Mazowiecka", "Traugutta", "Czackiego", "Jasna" streets for CBD-A, together with Małachowskiego" and "Dąbrowskiego" squares);  
J.Chrościcki, A.Rottermund. *Atlas of Warsaw's Architecture* op.cit. under relevant street addresses;  
J.Chrościcki. "Forum Wazów w Warszawie" (in) *Kwartalnik*

- Architektury i Urbanistyki*, T.XXV (19800, z.3-4.
163. A.Gieysztor, S.Herbst, E.Szwankowski. "Kształty Warszawy" (in) *Biuletyn Historii Sztuki* (annual publication, Warsaw 1947), chapters 2 and 3);  
 "Komisja Badań Dawnej Warszawy", *Szkice staromiejskie* (Warsaw 1955);  
 M.Bogucka, H.Samsonowicz. *Dzieje miast i mieszczaństwa w Polsce przedrozbiorowej*, Wrocław 1986;  
 W.Braunfels. *Urban design in western Europe, regime and architecture 900-1900* (translated by K.J.Northcott, London 1988);  
 A.E.J.Morris. *History of Urban Form before the industrial revolutions*, London 1979 (cf. "Warsaw", apart from relevant chapters on mediaeval towns).
164. W.Sterner. *Mosty Warszawy*, Warsaw 1960 (Chapter 5: "Po prostu most Kierbedzia");  
 T.Jaroszewski, A.Rottermund. *Katalog rysunków architektonicznych Henryka i Leandra Marconiego w AGAD w Warszawie*, Warsaw 1977 (pp.77 and 221);  
 E.Szwankowski. *Ulice...op.cit.* ("Bednarska", "Mariensztat" and "Zródlowa" street entries).
165. W.Sterner, *op.cit.* p.95;  
*Tygodnik Ilustrowany*, 1899, nr.50 s.438;  
*Atlas of Warsaw's Architecture*, *op.cit.*p.71.
166. L.Mumford. *The Culture of cities*, London 1938 ("Court, Parade and Capital", pp.73-142);  
 W.Braunfels. *Urban design in western Europe... op.cit.*;  
 A.E.J.Morris. *History of Urban Form...op.cit.*;  
*Sztuka miast i mieszczaństwa XV-XVIII wieku w Europie Środkowej* (ed. J.Harasimowicz), Warsaw 1990;  
 S.Kieniewicz. *Warszawa op.cit.*, pp.35-40, 112-'15, 179-'81;  
 A.Miłobędzki. *Architektura polska XVII wieku*, t.I-II, Warsaw 1980;  
 J.Putkowska. *Architektura Warszawy XVII wieku*, Warsaw 1991.
167. Z.Stepiński. *Siedem placów Warszawy*, *op.cit.* pp.96-196 ("Plac Saski. Plac Zwycięstwa");  
 K.Konarski. *Pałac Brółowski w Warszawie*, Warsaw 1915;  
 A.Rottermund. *Hotel Europejski*, Warsaw 1972;  
 Zwycięstwo i porażka historycyzmu. Konkurs a przebudowa

- pałacu saskiego w Warszawie" (in) *Muzeum i twórca. Studia z historii sztuki i kultury(...)*, Warsaw 1969 pp.433-'41;
- W.Szymański. *Sobór na Placu Saskim (i problemy rusyfikacji architektury Warszawy)*, M.A. dissertation at the Institute of Art History, Warsaw University (1983), unpublished;
- E.Charasińska. *Ogród Saski*, Warsaw 1979.
168. E.Szwankowski. *Ulice...op.cit.* (entries : "Krakowskie Przedmieście", "Senatorska", "Bielańska", "Wierzbowa", "Trębacka", "Moliera", "Daniłowiczowska", "Niecała" and "Fredry" streets, "Teatralny", "Krasieński", "Bank", as well as "Zwycięstwa" squares, also "Żelaznej Bramy" Sq., "Graniczna", "Zabia" and "Elektoralna" streets for "behind the Iron Gate" quarter);
- I.i J.Kosimowie. "Fritza wernicka opis Warszawy z 1876 roku" (in) *Studia warszawskie : Warszawa XIX wieku*, op.cit. z.1-2;
- Z.Stępiński. *Siedem placów...op.cit.* ("Plac Bankowy-Plac Dzierżyńskiego", "Plac Teatralny", "Plac Żelaznej Bramy"; *Zbiory Przyborowskiego*, op.cit. vol.XXXIV (1910), on Żelazna Brama Square;
- S.Kowalska-Glickman. "Na targowiskach XIX-owiecznej Warszawy", op.cit.;
- P.J.Martyn. (in) *Polin*, op.cit. ("The Bizarrest Metropolis?").
169. "Zaczątek samorządu miejskiego, zlikwidowany w 1863r., nie został już przywrócony. Magistrat pozostał urzędem państwowym rosyjskim, podporządkowanym "naczelnikowi kraju", oraz Ministerstwu Spraw Wewnętrznych. O każdym wydatku władz miejskich powyżej 5 tysięcy rb. decydował general-gubernator, wydatki ponad 30 tysięcy wymagał zgody Petersburga. O sprawach inwestycyjnych Warszawy rozstrzygał nierzadko sam cesarz - nierzadko w sensie negatywnym. Nadniewska biurokracja miała traktować Warszawę jak przeciętne miasto gubernialne, które też nie powinno było w niczym konkurować ze stolicami Imperium."  
(S.Kieniewicz. *Warszawa*, op.cit. pp.191-'92)
170. *Wielkomiejski rozwój Warszawy* op.cit.pp.107-'18 (M.Gajewski);
- Zarząd miejski w m. st. Warszawie. *Wodociągi i kanalizacja m.st. Warszawy 1886-1936* (a City Council publication, Warsaw

- 1937);  
H.Janczewski. *Warszawa. Geneza i rozwój inżynierii miejskiej*  
op.cit.;
- A.Słoniowa. *Początki nowoczesnej infrastruktury Warszawy*  
op.cit.;
- Zbiory Przyborowskiego* op.cit. vol.XXXV, p.103 : "Pożyczka  
miejska", unidentified daily newspaper c.1910.
171. S.Herbst. *Ulica Marszałkowska* op.cit., chapter/"Rozdział" 3  
("Droga do dworca kolejowego") pp.71-111;
- E.Szwankowski. *Ulice...*op.cit. (entries : "Nowy Świat",  
"Marszałkowska", "Świętokrzyska", "Warecka", "Ordynacka",  
"Górskiego", "Chmielna"/"Rutkowskiego", "Foksal",  
"Kopernika", "Smolna", "(Aleje)Jerozolimskie", "Widok",  
"Bracka", "Hibnera", "Boduena", "Sienkiewicza", "Moniuszki",  
"Jasna" and "Powstańców Warszawy" (Square));
- S.Kieniewicz. *Warszawa* op.cit., pp.207-'9 ("Budowle  
publiczne ");
- M.Rudowska. *Warszawskie konkursy architektoniczne w latach  
1864-1898*, Warsaw 1972;
- M.Krajewski. *Dzieje głównego dworca kolejowego w Warszawie*,  
Warsaw 1971 (pp.32-83).
172. J.Summerson. *Georgian London*, London 1945;
- S.E.Rasmussen. *London the Unique City*, London 1934;
- S.Herbst etc. *Kształty Warszawy* op.cit.;
- I.Pietrzak-Pawłowska. (in) *Dzieje Śródmieścia* op.cit.;
- K.Dumała. "Dzielnice Warszawy..." op.cit.;
- W.Pruss. "Przemiany i trwałość układów urbanistycznych w  
dobie przemysłowej (na przykładzie XIX-owiecznej Warszawy)",  
*Miasto i kultura polska doby przemysłowej. Przestrzeń*,  
Warsaw 1988.
173. S.Herbst. *Ulica Marszałkowska* op.cit. p.\_\_\_\_;  
*Zbiory Przyborowskiego*, op.cit. vol.X p.136.
174. E.Szwankowski. *Warszawa* op.cit., pp.241-'50;
- Stepiński in *Biuletyn Historii Sztuki* or some such;  
*Architektura*, 10.(48), 1951 ("Dyskusja o Nowym Świecie").
175. P.Biegański. *Pałac Staszica*, Warsaw 1949;
- N.Pevsner. *A History of Building Types*, London 1979;
- A.Gallion, S.Eisner. *The Urban Pattern* op.cit. pp.70-'2.

Chapter 6 : THE TENEMENT BELT

176. cf. Olgierd Fuciata ("Dzielnia nowomiejska w latach 1795-1900") and especially H.Szwankowska ("Nowe Miasto zaniedbana dzielnica Warszawy 1900-1915") *Komisja Badań dawnej Warszawy : Szkice nowomiejskie*, Warsaw 1961;  
E.Szwankowski. *Ulice...*op.cit. (entries : "Rynek Nowego Miasta", "Freta", "Zakroczymska", "Długa", "Mostowa", "Franciszkańska", "Sapieżyńskich" and "Bonifraterska");
177. E.Szwankowski. *Warszawa* op.cit. pp.45-'6;  
*Ulice...*op.cit. entries:  
"(Aleja) K.Swierczewskiego", "Nowolipie", "Nowolipki", "Dzielnia", "Pawia", "Karmelicka", "Smocza", "Żytunia" and "Zamenhoffa" streets).
178. E.Ringelblum. *Żydzi w Warszawie*, Warsaw 1932;  
A.Eisenbach. "Żydzi Warszawy i sprawa żydowska XVIII wieku", *Studia warszawskie, Warszawa XVIII wieku*, z.2 (Warsaw 1975);  
"Jewish population in Warsaw at the turn of the 18th. century", *Polin* Vol.III op.cit. pp.46-77.
179. F.Sobieszczański. *Warszawa (Wybór publikacji)*, abridged works reprinted, Warsaw 1967;  
E.Szwankowski. *Ulice...*op.cit. (entries : "Bohaterów Getta", "Wałowa", "Franciszkańska", "Anielewicza", "Miła", "Muranowska", "Niska", "Stawki" and "Dzika"/"Zamenhoffa" streets).
180. E.Szwankowski. *Warszawa* op.cit. p.217;  
*Wielkomiejski rozwój Warszawy...*W.Pruss; esp. "Tablica" 35 ("Przemysł dzielnicy muranowskiej na tle przemysłu warszawskiego"), p.180.
181. A.Eisenbach. *Z dziejów ludności żydowskiej w Polsce, studia i szkice*, Warsaw 1983;  
P.J.Martyn. "The Undefined Town..." , *Polin* op.cit. pp.27-'8.
182. A.Szczypiorski. *Warszawa (...) 1832-1868* op.cit;  
M.Nietyka. *Ludność Warszawy* op.cit.
183. F.Sobieszczański. *Wybór publikacji* op.cit.(articles written between c.1830 and 1843);  
*Rocznik statystyczny Magistratu m. Warszawy (1910)*op.cit.;  
ibid. (1913);

- Encyclopaedia Judaica*, Jerusalem (under entry "Warsaw").
184. H.Świątkowski. *Taryffa domów miasta Warszawy i Pragi z planem gólnym i 128 szczegółowych planików ulic i domów*, Warsaw 1852;  
*Plan Oficerów Korpusu Inżynierów*, original 1822 (draughted under the guidance of cartographer F.Koriot, updated 1832, 1859 and 1867);  
*Wielkomiejski rozwój Warszawy* op.cit. (B.Raczkowski on urban history of Muranów/NW inner-urban district of Warsaw) pp.235-'6.
185. W.Pruss. *Rozwój przemysłu warszawskiego 1864-1914* op.cit. (cf. inventory of largest Warsaw factories, emplying by 1913/1914 between 50 and 1000 workers, based on the research of Orlov and Jeziorański prior to 1914; refer back to note entry no.137);  
E.Szwankowski. *Ulice...*op.cit. (entries : "Okopowa", "Pawia", "Anielewicza", "Niska", "Stawki" and "Smocza").
186. *Wielkomiejski rozwój Warszawy* op.cit. : (W.Pruss, p.171 with "Tablica" 35; M.Nietyksza, p.65);  
*Rocznik statystyczny Magistratu m.Warszawy* op.cit.(1910).
187. *Warszawa w latach 1528-1795*, pp.296-326 (A.Zahorski), Warsaw 1984;  
*Atlas of Warsaw' Architecture* op.cit., pp.25-'6;  
A.Sokołowska. "Jurydyka Wielopole w Warszawie w świetle nieznanych planów Tylmana van Gamera. *Rocznik Warszawy* XI(1972) s.23-56;  
J.Putkowska. *Architektura Warszawy XVII wieku* op.cit. pp.29-34;  
E.Szwankowski. *Warszawa* op.cit. pp.43-'4;  
*Ulice...*op.cit. (entries : "Chłodna", "Elektoralna", "Graniczna", "Grzybowska", "Krochmalna", "Ogrodowa", "Orla", "Waliców", "Wronia", "Żelazna" and public squares "Żelaznej Bramy", "Mirowska");  
Z.Stępiński. *Siedem placów...*op.cit. pp.266-311 ("Plac Żelaznej Bramy").
188. *Wielkomiejski rozwój Warszawy* op.cit.(W.Pruss, "Od przemysłu manufakturowego do fabrycznego",pp.208-211, also 211-,24);  
W.Pruss,M.Nietyksza (in) *Dzieje Woli* op.cit. pp.119-'36;  
W.Pruss (in) *Miasto i kultura polska doby*



*przemysłowej...op.cit.*

J.Hensel most reliably sums up the phenomenon of servants sleeping in the kitchen; a 19th-century human version of the late-20th-century domestic robot? The fact people were willing to live in what must have frequently been exceptionally uncomfortable and potentially exploitable situations gives some idea of the severe housing shortage in late-19th-century Warsaw.

Poza miejscem pracy, (...) ważną częścią składową mieszkania burżuazji była kuchnia. W środkowisku drobnej burżuazji w kuchni mieszkała zazwyczaj służba, natomiast w domach wielkiej i średniej burżuazji służba zajmowała osobne pomieszczenia."

("Apart from the work place, an important element in the middle-class flat was occupied by the kitchen. Among the lower middle classes the domestic(s) would have usually lived in the kitchen, while in wealthier and upper middle-class homes they (servants) were provided with separate living quarters.")

J.Hensel. *Burżuazja warszawska drugiej połowy XIX w. w świetle akt notarialnych*, Warsaw 1979.

189. W.Małcużyński. *Rozwój terytorialny...op.cit.*;  
E.Szwankowski. *Warszawa op.cit.* pp.41-'4;  
*Ulice...op.cit.* (entries : "Grzybowska", "Twarda", "Pańska", "Śliska", "Sienna", "Złota", "Chmielna", "Zielna", "Wielka");  
Z.Stępiński. *Siedem placów...op.cit.* pp.241-'65 ("Plac Grzybowski");  
S.Herbst. *Ulica Marszałkowska op.cit.* pp.30-'3.
190. *Wielkomięjski rozwój Warszawy op.cit.* pp.160-'89, including "Tablica"34 (p.179), pp-'23, with "tablice" 58-65;  
W.Pruss. *Rozwój przemysłu warszawskiego op.cit.*;  
P.A.Orlov. *Ukazatel...op.cit.*;  
Z.Jeziorański. *Księga adresowa przemysłu fabrycznego op.cit.*;  
E.Szwankowski. *Warszawa op.cit.* p.225;  
*Ulice...op.cit.* (entries : "Towarowa", "Grzybowska", "Pańska", "Prosta", "Sienna", "Twarda", "Waliców", "Wronia", "Żelazna");  
A.Szczypiorski. *Warszawa (...) 1832-1868 op.cit.* p.170.

191. E.Szwankowski. *Warszawa* op.cit. p.225;  
 E.Kowalska-Glickman. "Na targowiskach (...)" op.cit.;  
 W.Pruss. *Rozwój przemysłu warszawskiego* op.cit.
192. S.Herbst. *Ulica Marszałkowska* op.cit.pp.95,98,101,104,118 and 147;  
 E.Szwankowski. *Warszawa* op.cit. p.224;  
*Ulice...*op.cit. (entries : "(Aleje)Jerozolimskie", "Chałubińskiego, "Emilii Plater", "Poznańska", "Lwowska", "Nowogrodzka", "Zurawia", "Wspólna", "Hoża", "Wilcza", "Piękna", "Koszykowa", "Nowowiejska", "Śniadeckich", "Polna", "(Plac)Zbawiciela" and "(Plac)Unii Lubelskiej");  
 K.Dumała. "Dzielnica XIX-wiecznej Warszawy(...)" op.cit. pp.70-'3;  
 J.Roguska. "Przejazdy bramne i klatki schodowe kamienic warszawskich w II połowie XIX i na początku XX wieku" (with English pr cis, "Gateway and staircase design in the Warsaw tenement house...", *Kwartalnik Architektury i Urbanistyki* XXIII(1978) z.1-2, s.71-92;  
*Niepiękne dzielnice*. Precise.
193. *Atlas of Warsaw's Architecture* op.cit.26-'7, as well as entries "Łazienki" and "Ujazdów Avenue";  
 S.Zahorski in *Warszawa w latach 1526-1795* op.cit.;  
 S.Herbst. *Ulica Marszałkowska* op.cit.,pp.35-'9;  
 O.Sosnowski. *Powstanie, układ i cechy (...) sieci ulicznej Warszawy* op.cit.;  
 A.Lutosławska. "Rezydencja Wazów w Ujazzdowie pod Warszawa", *Kwartalnik Architektury i Urbanistyki* VII(1962) z.1;  
 E.Szwankowski. *Ulice...*op.cit. (entries : "(Aleja)Belwederska", "(Aleje)Ujazdowskie", "(Aleja)Szucha", "Bagatela", "Klonowa", "Mokotowska", "Krucza", "Bracka", "Nowogrodzka", "Zurawia", "Wspólna", "Hoża", "Wilcza", "Piękna", "Koszykowa", "Nowowiejska", "Litewska", "Górnoślaska").
194. E.Szwankowski. *Warszawa* op.cit. pp.81-'2;  
 A.Eisenbach. "The Jewish Population in Warsaw(...)" *Polin* op.cit., p.48;  
 T.Lipiński. "Wiadomości o Nowej Jerozolimie", *Biblioteka Warszawska* 4(1845), pp.403-'7.
195. S.Kieniewicz. *Warszawa* op.cit. pp.153-'5;

- Plan Oficerów Korpusu Inżynierów* (1859, 1867) op.cit.;
- J.Roguska. "Architektura willowa (...)" op.cit.
196. "Na Kruczej stoja idealnie warszawskie kamienice czynszowe, jeszcze te autentyczne sprzed "wolnościowej" secesji, a już pozbawione wszelkiego łatwego do odczucia smaczków, jaki posiadają wszystkie domy budowane przed powstaniem stycznim" A.Sobański. "Ulica Krucza", *Wiadomości Literackie* 1938, nr.52-'3; reprinted in collective journalist reports and articles from the interwar years, entitled *Niepięknne dzielnice* op.cit.).
197. "Mieszczanin warszawski, jako zatwardziały konserwatysta, nie bierze udziału w rewolucji mieszkaniowej. (...) Mieszka, jeżeli nie rzeczywiście, to potencjalnie, w oficynie. Tu celebrowe swe życie rodzinne z "kurierkiem" po obiedzie, wśród zapachów kapusty i kota, fotografii rodzinnych na ścianach, wsłuchany w symfonie podwórza, składających się z nawoływani przekupniów i wrózek, koncertów radiowych i gramofonowych, kłótni kucht, wprawek Czernego i gry w klasy. W powszechni dzień nie dostrzega braku słońca, zieleni i nieba, zasłania okna wysokich, ciemno tapetowanych pokojów zakurzonymi zasłonami, zaspokajając potrzebę świeżego powietrza wystawianiem pościeli na balkon i niedzielna majówka. Jest zadowolony, bo nie chce mieszkać inaczej." F.Lewicki. "Różne bywają dachy nad głowa", *Wiadomości Literackie* 1938, nr.52-53, reprinted in *Niepięknne dzielnice* anthology op.cit., pp.51-60.

Chapter 7 : THE INNER-URBAN PERIPHERY AND TENEMENT DEVELOPMENT IN THE SUBURBS

- 198 K.Lynch. *Good City Form*, Cambridge (USA)-London 1977;
- A.Briggs. *Victorian Cities*, London 1963;
- A.S.Wohl. *The Eternal Slum : Housing and Social Policy in Victorian London*, London 1973;
- R.Roberts. *The Classic Slum*, Manchester 1971.
- J.N.Turn. *Five PerCent Philanthropy : An Account of Housing in Urban Areas between 1840 and 1914*, Cambridge 1973;
- "

The general sociological context is perhaps most poignantly summed up by L.Mumford in *The City In History*, USA 1961 (revised publication of *The Culture of Cities*):

"(...) the benefits of capitalism were confined to those on the inside, the merchants, traders, financiers, investors; and that it was no part of a capitalist economy to provide urban quarters for the working classes except on terms that would furnish a handsome profit : that is to say, by overcrowding, skimping, niggardly provisions even for light and air, a general worsening of the whole urban environment." (p.506)

199. A.Ginsbert-Gebert. *Łódź, studium monograficzne*, Łódź 1965;  
E.Markiewicz-Korońska. "Rozwój przestrzenny wielkich i dużych zespołów miejskich na terenie Łodzi w II połowie XIX w.", *Kwartalnik Architektury i Urbanistyki* T.XXIX(1984), pp.137-144;  
ibid., pp.95-111 :J.Kubiak,T.Szybowska. "Urbanistyki i architektura Zyrardowa-jej i problemy konserwatorskie".
200. D.J.Olsen. *The City as a Work of Art* op.cit.p.146.
201. "(...) skręcił na ulicę Karową. (...) Zdawało mu się(...), że powoli spływa sobie gdzieś na dół tym rynsztokiem zaciśniętym odwiecznymi murami. (...) Zatrzymał się w połowie drogi i patrzył na ciągnącą się u jego stóp dzielnicę między Nowym Zjazdem i Tamką. Uderzyło go podobieństwo do drabiny, której jeden bok stanowi ulica Dobra, drugi - linia od Garbarskiej do Topieli, a kilkanaście uliczek poprzecznych formują jakby szczeble. <Nigdzie nie wejdziemy po tej leżącej drabinie - myślał. - To chory kat, dziki kat>. I rozważał pełen goryczy, że ten płot nie urodzi nic nad parterowe i jednopiętrowe domki barwy czekoladowej i jasnożółtej, ciemnozielonej i pomarańczowej. Nic oprócz białych i czarnych parkanów, otaczających puste place, skąd gdzieśniedzie wyskakuje kilkupiętrowa kamienica, jak sosna, która ocalała z wyciętego lasu, przestraszona własną samotnością."
- B.Prus *Lalka* op.cit., vol.I, pp.176-177  
cf. also L.B.Grzeniewski *Warszawa w Lalce Prusa*, Warsaw 1965.

202. *Wielkomięjski rozwój Warszawy* op.cit. pp.66,67,119-'22, 183("Tablica" 38);  
E.Szwankowski. *Warszawa* op.cit. p.228;  
I.Fietrzak-Pawłowska (in) *Dzieje Śródmieścia* op.cit.
203. "Drabina ulic Powiśla, która zarysowała się w czasach gdy Prus pisał "Lalkę" została całkowicie 'zmontowana'."  
(E.Szwankowski. *Warszawa* op.cit.p.228)  
*Ulice...*op.cit. (entries : "Dobra", "Wybrzeże Kościuszki", "Browarna", "Lipowa", "Radna", "Leszczyńska", "Oboźna", "Tamka", "Solec", "Książęca", "Ludna", "Gornoślaska", "Fabryczna", "Przemysłowa", "Agrykola", "Czeraniakowska".
204. "(...) działalność spółek, mimo że nawet mogła nosić w sobie cechy myśli postępowej, była w swej istocie utopijna i nie przeciwstawiała się stopniowo narastającej klęsce mieszkaniowej."  
(E.Szwankowski. *Warszawa* op.cit. p.204);  
cf. also T.Toeplitz. *Klęska mieszkaniowa* op.cit.
205. E.Szwankowski *ibid.* 205-'7;  
J.Cegielski. *Stosunki mieszkaniowe...* op.cit. pp.141-'62;  
M.Ciemniewski. "O mieszkaniach u ubogiej ludności w Warszawie na podstawie rezultatów spisu mieszkań z r.1891", *Zdrowie* weekly 1894 nry.2,3,4;  
M.Kwiatkowski. *Architektura mieszkaniowa Warszawy...*op.cit. pp447-'50;  
J.Roguska. "Architektura i budownictwo mieszkaniowa w Warszawie II połowy XIX i na początku XX wieku" (especially "Przykładowe domy robotnicze i 'tanie mieszkania' funduszy społecznych"), *Kwartalnik Architektury i Urbanistyki* XX(1986), z.2;  
J.Sujecki. "Dwie kamienice", *Spotkania z zabytkami* monthly no.1, 1989 (41).
206. W.Sterner. *Mosty Warszawy*, op.cit.
207. "Praga zniszczona i wyludniona zaległa w gruzach i nie ma nawet nadziei, aby mogła kiedy z nich powstać."  
(cf. A.Kosiński in J.Berger, "Rozwój Pragi...", *Wielkomięjski rozwój Warszawy* op.cit., p.257.
208. J.Berger, *ibid.*,pp.258-'65;  
J.Braun, *ibid.*,pp.123-'6 ("Główne linie kolejowe");  
E.Szwankowski *Warszawa* op.cit.,pp.191-'7 and p.216;

- (in) *Dzieje Pragi* op.cit.;
- Ulice* op.cit. : cf. street entries *Targowa, Ratuszowa, Jagiellońska, S.Wójcika, S.Okrzei, Wileńska, 11.Listopada, Stalowa, Strzelecka, Srodkowa, Białostocka, Brzeska, Zabkowska, Kaweczyńska, Radywińska, Kijowska, Grochowska, (Stalingradzka), Plac Weteranów.*
209. A.Gieysztor, S.Herbst, E.Szwankowski. "Kształty Warszawy" op.cit.;
- F.Sobieszczański. *Wybór publikacji* op.cit. (1847 statistical estimations and under index entries for "Praga");
- F.Werwicki "Opis..." op.cit.;
- F.Goetel. "Pierwszy rzut oka na Warszawę" (in) *Jesteśmy w Warszawie* op.cit., pp.29-32;
- (also) articles in *Stolica* weekly "Egzotyka Warszawy" etc.
210. *Wielkomiński rozwój Warszawy* op.cit. p.262 and map (p.263);
- Ibid.* pp.107-'13;
- Kanakizacja i wodociągi Warszawy 1886-1935* op.cit.;
- A.Słoniowa. *Początki nowoczesnej infrastruktury* op.cit.
211. *Kształty Warszawy* op.cit. pp.(21)-(23), incl.map "rycina 76";
- E.Szwankowski *Ulice* op.cit., under *Wolska* (street);
- Atlas architektury Warszawy* op.cit.(under "Wolska");
- E.Szwankowski. *Warszawa* op.cit. pp.121-'2.
212. W.Pruss. *Rozwój przemysłu* op.cit.;
- Wielkomiński rozwój Warszawy* op.cit.pp.171, 176-'7, 186 ("Tablica 41");
- M.Nietyksza, W.Pruss (in) *Dzieje Woli* op.cit.;
- E.Szwankowski. *Ulice* op.cit., cf. under street entries : (*Wolska*), *Karolkowa, Młynarska, Leszno, Górczewska, Eytinia, Okopowa, Towarowa, (M.Kasprzaka), J.Bema, Przyokopowa, Płocka, Obozowa, Elekcyjna.*
213. *Plan regulacyjny m.Warszawy (z) 1886r.* (Archiwum m.st.W-wy);
- S.Dziewulski, H.Radziszewski. *Warszawa* op.cit.;
- D.Sosnowski "(...)układ sieci ulic(...)" op.cit.
- E.Szwankowski. *Warszawa* op.cit., p.233 and map (p.232);
- D.J.Olsen. *The city* op.cit. ("Social Geography"- "Paris");
- Geist, KÜrvers. *Das Berliner Nietshaus*, op.cit.
214. E.Szwankowski. *Warszawa* op.cit. pp.100-'1, 118-'9, 180-'1;
- Ulice* op.cit., cf. street entries : *Zakroczymska,*

- Konwiktorska, Stawki, Marymoncka;*  
 A.Szczypiorski. *Cwierć wieku Warszawy 1806-1830*, Wrocław 1964;  
 T.Jabłoński. *Północny trakt Warszawy* op.cit. pp.63-84;  
*Taryfa domów (Rok 1930)*, Warsaw 1930;  
 "Wykaz nieruchomości Miasta Warszawy z 1819r.", (in) *Zróżła do dziejów Warszawy* vol.II, Archiwum Państwowe miasta stołecznego Warszawy (directed by J.Kazimierski), Warsaw 1966.
215. K.Baedecker. *Russland*, Leipzig 1904 (published in English translation in 1914); plans of Helsinki and Odessa;  
 A.Ginsberg- *Łódź* op.cit.;  
 M.Wiśniewski. "Konsekwencje XIX-owiecznego rozwoju przestrzennego w planowaniu przekształceń Śródmieścia Łodzi", *Kwartalnik arch. i urb.* op.cit. XXIX (1984) Z.1-2;  
 S.D.Coursin (?);  
 А. В. Бунин. *История градостроительного искусства*, (vol.I Moscow 1953); *Одесса. План Города, 1854.*
216. Jeżeli upierać się będziecie przy waszych marzeniach o odrębnej narodowości, o Polsce niepodległej i przy wszystkich tych złudzeniach ściągniecie na siebie wielkie nieszczęście. Kazałem tu zbudować Cytadelę Aleksandrowską i oświadczam wam, że przy najmniejszym zaburzeniu każde miasto zbombardować, zburzyć Warszawę i z pewnością nie ja ja odbuduję."  
 (S.Kieniewicz *Warszawa* op.cit. p.103)  
 A.Shcherbatov. *Rządy ks. Paskiewicza w Królestwie Polskim*, Warsaw 1900;  
 S.Kieniewicz. *Historia Polski 1795-1914* op.cit., chapter 6 ("Powstanie Listopadowe");  
 A.Moraczewski. *Samorząd Warszawy w dobie powstania listopadowego*, Warsaw 1934;
217. T.Jabłoński. *Północny trakt* op.cit. pp.85 >> ("Cytadela");  
 O.Sosnowski. "(...)układ sieci ulic(...)" op.cit.;  
 J.Kołodziejczyk (in) *Zoliborz wczoraj..* op.cit. ("W cieniu Cytadeli. Zoliborz w XIX i na początku XX wieku");  
 S.Herbst. *Ibid* ("Funkcja wojskowa Cytadeli");  
 H.J.Mościcki. *Cytadela warszawska. Zarys historii budowy*, Warsaw 1963;

- H.Świątkowski. *Taryffa domów (1852)* op.cit.;
- W.Dzierżanowski "Taryffa domów"(in) *Przewodnik warszawski informacyjno-adressowy na rok 1869*, Warsaw 1869.
218. Ł.Heyman. *Nowy Soliborz* op.cit.
219. "Zahamowanie kierunku północnego było dla miasta stratą tym większą, że kierunek południowy w górę rzeki nie stworzył dogodnych warunków do osadnictwa".  
(*Wielkomiejski rozwój Warszawy* p.23).
220. T.Jabłoński op.cit.pp.5-24;  
I.Pietrzak-Pawłowska. *Ewolucja śródmieścia* op.cit.
221. *Wodociągi i kanalizacja Warszawy* op.cit.;
- M.Werwicki *Plany Linleyowskie* op.cit.
222. *Wielkomiejski rozwój Warszawy* op.cit. p.103;  
S.Kieniewicz. *Warszawa* op.cit. p.210.
223. E.Szwankowski. *Warszawa* op.cit. pp.250-'1;  
*Ulice* op.cit., cf. under street entries : *Aleje Ujazdowskie, Agrykola, Nowowiejska, Plac na Rozdrożu*;  
K.Dumała. "Dzielnice Warszawy op.cit.pp.72-'3;  
*Illustrowany przewodnik po Warszawie* (published by Wędrowiec in 1893);  
*Zbiory Przyborowskiego* ("Dzielnica rosyjska"), t.XXV (1911) p.276;

#### Chapter 8 : URBANISATION AND BUILDING TYPES IN THE OUTER CITY

224. S.Herbst(op.cit.) and S.Misztal ("Rozwój przemysłu na Mokotowie" (until 1918), *Dzieje Mokotowa*, Warsaw 1973.
225. J.Kasprzycki. "Kolonia Welonin" (in) *Pożegnania warszawskie*, Warsaw 1971, p.120 (drawings by M.Stępień).
226. S.Misztal in *Dzieje Mokotowa* op.cit.  
*Wielkomiejski rozwój Warszawy* ("Tablica"40 : "Przemysł dzielnicy mokotowskiej na tle przemysłu warszawskiego"), op.cit. p.185.
227. M.Nietyksza,W.Fruss. "Wola w okresie przemian kapitalistycznych 1850-1914" (in) *Dzisiejsza Wola* op.cit.
228. S.Szymkiewicz. "Inkorporacja przedmieść...", op.cit.;
- E.Szwankowski *Ulice* op.cit.,cf. street entries *Puławska*,



Rakowiecka, Narbutta, Różana, Madalińskiego, Komarowa, Aleja Niepodległości, Dolna, Belwederska, Gagarina, Czerniakowska, Plac Unii Lubelskiej.

229. Taryfa domów Warszawy (Rok 1930), op.cit.

230. "Wysokie ceny mieszkań w Warszawie zachęciły wielu przedsiębiorstw do budowy domów poza granicami i miasta. Największy ruch budowlany zauważyć można w Sielcach i Mokotowie.

(Ebiory Przyborowskiego op.cit., t. XI, pp. 141);

"Przedmieścia Warszawy za rogatkami Mokotowska, Jerozolimską i Wolską ciągle się zabudują; ponieważ jednak wchodzi w granice rejonu fortecznego, w którym nie wolno stawiać budynków murowanych przeto właściciele gruntów wystąpili do władzy z prośbą, aby przynajmniej w odległości jednej wiorsty od granicy miasta było wolno stawiać budynki murowane."

(Ibid. p. 145);

"Magistrat miasta zwrócił się z przedstawieniem do rządu gubernialnego aby ze względu na to, iż w przyszłości także podmiejskie okolice jak np. Mokotów i Wola według wszelkiego prawdopodobieństwa będą przyłączone do miasta, aby rząd gubernialny, w celu uniknięcia w przeszłości niepotrzebnych wydatków, zechciał wszelkie kwestje dotyczące regulacji ulic w tych stronach - budowy nowych domów - wytyczenia nowych ulic itp., załatwiać po wspólnym porozumieniu się z magistratem. Zadaniem magistratu dzisiaj należy już tam przestrzegać, aby ulice miały szerokość 10 sażni co najmniej".

(Ibid. p. 164).

231. S. Szymkiewicz. "Inkorporacja przedmieść" op.cit. ("Gmina Czyste")

232. "Za poprzedniego naczelnika powiatu projektowano oświetlenie Mokotowa i Sielc latarniami gazowymi kosztem 3000 rubli rocznie, oraz chciano urządzić chodniki nad rowami. Na ten wydatek może się zdobyć ludność liczący z góra 20,000 osób. Niestety, brak sprężystego zarządu gminy jest powodem, że to przedmieście pod każdym względem jest najbardziej upośledzone."

(Note : a certain terminological discrepancy exists in the

journalists' use of "parish administration" and "suburb" in reference to Mokotów and Sielce, reflecting the total inadequacy of the administrative machinery still in operation in the already extensively built-up and populous suburban belt of which these former villages formed an integral part.)

(cf. *Zbiory Przyborowskiego* T.XV, p.303);

"W piątek dnia 16. b.m. o godzinie 4-ej po południu, w mieszkaniu p.Bereskiego, właściciela domu w Mokotowie odbędzie się zebranie obywateli mokotowskich w celu omówienia następujących spraw :

- (1). zmiany nazwy głównej ulicy mokotowskiej na Nowo-Marszałkowska
- (2). podpisanie deklaracji przez właścicieli domów, że nie będą wynajmowali lokali kobietom niemoralnym
- (3). staranie u władzy właściwej o budowę kanału między rogatka mokotowska a posesją sukcesorów Leśniewskiej
- (4). sprawa przyłączenia Mokotowa do Warszawy
- (5). oświetlenie głównych ulic latarniami gazowymi
- (6). projekt utrzymywania stróż nocnych
- (7). starać się u władzy, aby przynajmniej 2-ch delegatów, wybranych spośród obywateli mokotowskich, miała prawo głosu w urzędzie gminnym, dotychczas bowiem właściciele gruntów obszrów 6 morgów, płacący podatek po 10 rubli rocznie mają prawo zasiadania w urzędzie gminnym, właściciele zaś licznych domów, płacący po kilkaset rubli podatku nie mają prawa nawet do kontroli wydatków gminnych.

(*Zbiory Przyborowskiego*, T.XVI, p.260).

J.Piłatowicz. *Dzieje eskryfikacji Warszawy*, Warsaw 1984, pp.47-51, 57-61.

233. E.Szwankowski. *Ulice* op.cit. (*Puławska, Rakowiecka streets*); S.Herbst (in) *Dzieje Mokotowa* op.cit.

234. "Właściciele posesyi Ochoty oraz nowopowstających terenów skarżyli się, że grunta ich znajdowały się wciąż w stanie wielkiego zaniedbania, nawet gdy w roku 1909 rogatka została nieco przesunięta. Braki Ochoty dotkliwe zarówno w dziedzinie oświetlenia, które stało się obowiązkowe dopiero od roku 1908, jak wodociągów, prócz

wspomnianej już studni artezyjskiej nie mogącej jednak zaspokoić potrzeb coraz wzrastającej ludności, kanalizacji i dobrych bruków, nie mówiąc już o komunikacji tramwajowej.

(...) Ochota w owym czasie była już w znacznej części zabudowana paropiętrowymi domami murowanymi, jak bezstylowymi, jak większość domów ówczesnej Warszawy."

S.Łoza. *Szkice warszawskie*, Warszawa 1958, p.69.

235. H.Witwicka. "The Jewish Prayer Houses of 19th. and early-20th.century Warsaw" (in) *Polin journal of Jewish-Polish Studies*, vol.IV. Oxford 1990.
236. *Kościół warszawskie w odbudowie*. Komosja Odbudowy Kościołów w stolicy, Warszawa 1949;  
A.Rotttermund *Atlas of Warsaw's Architecture* op.,cit.
237. "Do wydziału technicznego rządu gubernialnego w r.b. wniesiono 117 planów na zamierzone budowle w Sielcu dolnym." (*Zbiory Przyborowskiego* op.cit.,t.XI(1898),p.141)
238. "W Czerniakowie nawet włościanie zaczynają wznosić piętrowe domy murowane. Włościanin Werdecki kończy budowę dużego domu o jednym piętrze z balkonami i dach kryty blachą cynkową."  
(*Ibid.*).
239. "Zanikają stopniowo typy domów o mniejszej liczbie mieszkań, a coraz większą rolę odegrają domy wielomieszkańciewe."  
*Rezultaty* op.cit. t. I, cz. I, s.26.
240. Compare ground-plans and urban layout of Sielce or Koło districts on the base plan (1925, 1936) with peripheral districts of the built-up area recorded in the Świątkowski (1852) or revised Engineer Officer Corps (1867) plans; also Lindley maps in the suburbs compiled upto 1915.
241. J.Cegielski quote - interwar housing slump
242. Ł.Heyman, M.Drozdowski, T.Olszewski op.cit.
243. J.Cegielski (Dziki budownictwo w latach 1918-'39)
244. Wynot op. cit.
245. M. Serwecki *Moje Miasto* Warsaw, 1988.
246. No published information has been found on this subject. The 1919 property census recorded 144 "damaged" building (*budynki*) in suburban properties, but may have failed to

take into account the number of completely demolished houses or outbuildings. A better impression of the level of wartime devastation is given by comparing the overall number of "developed" suburban properties recorded in 1916 (4057) and 3 years later (3774).

247. J.Cegielski, interwar section on the Bródno parish suburbs.

**The Tenement House As a Building Form in Relation to the  
Large-Scale Urban Development of Warsaw, 1864-1919.**

**By**

**Peter J Martyn.**

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**Annexes.**



PART III

THE TENEMENT HOUSE IN THE URBAN LANDSCAPE

CHAPTER 9

TENEMENT HOUSE PLAN: BUILDING COMPONENTS

Introducing the building as a component in  
tenement house construction

The property census of 1919 was broadly split up into surveys of properties (Volume I "Statystyka nieruchomości") and apartments (Volume II: "Statystyka mieszkaniowa"). The census commission also stipulated the need to subdivide developed properties into buildings ("budynki") on the grounds that"

"Developed properties are concentrations of buildings in a certain territorial area.

The number of buildings in a property indicates the extent to which homes are concentrated and provides a picture complementing the data relating to building densities (expressed by the number of properties in a certain spatial unit).<sup>248</sup>

Four units were thus applied in the building and housing statistics of the property census, ranging in scale from developed properties and the building elements comprising them to apartments and their subdivisions into separate rooms. This categorisation has been retained in order to investigate the tenement house and the evolving urban landscape (1864-1914), although the emphasis placed on each of the four units of measurement differs from that of the original census:

1. DEVELOPED PROPERTY (nieruchomość zabudowana) as virtually synonymous with inhabited (i.e. residential or

semi-residential) property and characterised by the "barracks", or tenement house;

2. BUILDINGS (*budynki*) as elementary components of developed properties, tending to consist of interconnecting frontal-, side- or back-buildings;

3. APARTMENTS/FLATS (*mieszkania/lokale*) as subdivisions both of properties and their building components, providing in the first place a method of establishing property size/type and in the second place an indicator of housing densities (cf. Tables 3, 4 and 5 in Chapters 2 and 3)..

4. ROOMS (*izby*) as subdivisions of flats and indicators of variations in housing conditions, as well as of social hierarchy, within tenement house case studies or groups of properties in street block analysis (cf. cartogram IV<sup>d</sup> in Chapter 4).

It has been demonstrated in Part I that a distinction between built-up and inhabited property hardly existed in early-20th. century Warsaw (i.e. a difference of 225 developed properties from a total of 10,136 in the metropolitan area; cf. Table 2 in Chapter 1). Various functions, commercial, light-industrial or manufacturing, as well as residential, tended to be accommodated within the same building complex; even, in many cases, in the same apartments and the same rooms (cf. Tables 6<sup>a</sup> and 6<sup>b</sup> in Chapter 4). The developed property category in itself has proved an investigative unit too large to merit detailed analysis of functional structure, while at the opposite extreme with apartment, not to mention room, statistics it is very difficult to retain an overall picture of the urban pattern.

Apart from functional considerations, an individual

property may turn out to have been put up (or redeveloped) at different times, and its building components might also vary in height, reflecting their age or function. Consequently, the building, as opposed to developed property, as an investigative unit would be expected to provide more tangible evidence of the urban process during the 1864-1914 study period together with localised variations in urban morphology at street block scale (Chapter 4), or even with the building plot, as well as in relation to municipal districts (Chapter 2), functionally-delineated districts or sub-study areas and quarters of the inner city (Chapters 5-8 in part II).

The total number of 32,432 buildings in Greater Warsaw become a convenient statistical link between the 10,136 developed properties and 167,839 apartments (inhabited as well as uninhabitable) recorded in the 1919 census. To illustrate this point, by breaking down this set of figures for built-up properties, their building components and apartments between the Mid-Town, Praga and suburban *arrondissements* (cf. Table 9<sup>a</sup>), generalised models of house type and building configuration may be calculated for these respective parts of city:

3 buildings subdivided into 10 or 11 apartments in developed properties of commissariats I-XIII (as opposed to "barracks" houses of 31 apartments);

2 buildings of about 10 apartments in Praga properties;  
(and)

1, or less frequently 2 buildings of around 5 apartments, in suburban properties.

These model property types complement the classification of developed properties into small-, medium-sized and "barracks" houses derived from dividing the overall number

of habitable and uninhabitable apartments into the total number of built-up properties (cf. Table 3 and Fig. 1.4 in Chapter 2).

In Table 9<sup>a</sup> developed properties have been subdivided according to their constituent building components and the constructional materials of these buildings. A broad distinction has been made between brick/stone constructions (including a small number of concrete buildings) and wooden or "mixed"; i.e. wooden and brick/stone buildings. Even where buildings or mixed constructional materials were recorded, it should be noted that stone-brick buildings continued to predominate in inner city properties, including those of Praga. The largest complexes of (up to 12 or even more) buildings constituting inner city properties usually incorporated wooden service buildings, such as sheds, storage chambers or stables, although stone or brick tended to be the dominant constructional material; these properties have been counted in Table 9a with the "wood"/"mixed" category. In all, 2178 wooden buildings were noted in the 13 Mid-Town commissariats; this means that although stone-brick buildings and erections of other, "permanent", inflammable materials thus accounted for almost nine-tenths of the inner West Bank's building stock, wooden houses and service out-buildings still represented a significant 11.25%. The proportion of wooden buildings rose substantially to 42.25% in Praga (i.e. 1271 out of 3071 buildings), but it was, as is to be expected, in the suburban commissariats where an absolute majority of wooden buildings was recorded; i.e. 7058 manor houses, cottages, farms, service constructions etc. out of a total of 10,057.<sup>249</sup>

The existence of so-called inner-peripheral districts

(Powiśle and Wola) within the 13 Mid-Town districts has been demonstrated (above all in the street block analysis of Chapter 4) as being characterised by intensive apartment subdivisions (single- or 2-room flats) and very crowded housing conditions (based on numbers of tenants to a room), virtually matching the data recorded in Praga. It is to be expected that properties in Wola and Powiśle portrayed similar qualities to those of Praga (e.g. 2 building components in a majority of developed properties), and that wooden buildings recorded in *arrondissements* III, V, VI, VII, and I, X, XIII and IX respectively were situated to a greater extent in these peripheral quarters, representing a transitional zone between the inner and outer cities.

In addition, the mean number of buildings composing properties in the tenement belt would be expected to have risen to 4 (to comply with the archetypal configuration of street-facing frontal building, parallel backbuilding and connecting sidebuildings, creating a closed inner courtyard). In the city's former mediaeval quarters, however, building complexes would have been smaller, occupying correspondingly smaller, more intensively developed plots (cf. Fig. 3.1 where selected examples of mainly Mid-Town properties, classified in relation to their building components, have been identified from the 1:2500 base plan). The built-up urban patterns of Grzybów and Nalewki *arrondissements* were established in Part I from both the property census statistics and cartographic evidence as being most fully representative within their municipal borders of the tenement belt's consistent, closed-courtyard physical structure. Taking overall recordings of buildings components in these "tenement districts" and dividing them into total numbers of apartments (14,962 in VIII and 12,108

in IV), while dividing building components into developed properties (428 and 231 respectively) produces model property types of 4 buildings containing 9 apartments for Grzybów and 4 or 5 buildings containing 11 or 12 flats in Nalewki. The same calculations made for the 7,763 apartments, 1038 buildings and 312 developed properties in the North-Central commissariat (XII) gives a standardised property of just 3 buildings comprising 7 apartments.

A revised gradation of standardised developed property types, conforming with the functional zones of Greater Warsaw (illustrated in plate IV<sup>b</sup> in Chapter 4) thus appears:

1. 3 buildings of about 7 apartments in CBD properties dropping to 2 buildings of 8-10 apartments in the "discard" area of the Old Town (*Stare Miasto*);
2. 4 buildings of between 6 and 15 apartments (depending in part on social factors) in the tenement belt;
3. 2 buildings of 10 or more apartments (mainly single- or 2-room) in the "inner-peripheral" districts of Powiśle, (inner) Wola and Praga, but also in enclaves of Mokotów, Ochota and (outer) Wola where tenement development beyond the inner city was already well advanced;
4. 2 buildings of 4 or 5 apartments in more urbanised quarters of the outer city, such as Koło (XIX), Sielce (XX), but also in "Wooden" districts previously situated in Bródno Parish (XVIII, XXIV and XXV);
5. 1 building of 4 or 5 apartments in less urbanised areas of the outer city, such as the Grochów colonies (XVII) and the shanty towns previously situated in Młociny Parish (XXV());

6. 1 building of under 4 apartments; i.e. cottages and farm houses in the hamlets and rural areas of Greater Warsaw (compare with the key to "functional zones" illustrated in plate IV<sup>b</sup> of Chapter 4).

Allowance has had to be made in the above categorisation for fluctuating numbers of apartments in developed properties, grouped in street blocks forming the tenement belt (cf. Table VII in the statistical annex of Part I). As has already become manifest during examination of housing densities in different parts of the metropolitan area (in Chapters 3 and 4), the subdividing of flats was maximised in the properties of inner-peripheral districts - as well as in peripheral street blocks of the tenement belt itself - but in tenement belt quarters and the city centre apartments tended to be made up of at least 3 rooms and, even though averaged out on street block scale, could reach 5 rooms (compare Okopowa (V) and Towarowa (VI) with the South-East (IX-XIII) tenement districts in annex table VII and Chapter 6; also CBD districts E (XII) and F (X) in Chapter 5). Consequently, although the standard Mid-Town property, incorporating 3 buildings, and that of Praga, incorporating 2, recorded the same mean number of about 10 apartment subdivisions per building component, apartments in Mid-Town properties might consist of anywhere between 1 and 10 rooms, while those in Praga - and indeed properties in Wola and Powiśle - were predominantly single- or 2-room affairs.

Analysing tenement house and other developed property forms in relation to configurations of the building elements composing them is to some extent confounded, at least as far as the 1919 census results are concerned, by the failure to



Table 9a:

Categorisation of developed properties according to numbers of building components and building materials\*

"okrag" arrondissement	developed properties		developed properties composed of:															total number of buildings components
			1 buildings			2 buildings			3 buildings			4 buildings			5 or more buildings			
			brick	wood	total	brick	wood/mixed	total	brick	wood/mixed	total	brick	wood/mixed	total	brick	wood/mixed	total	
I	103	3	106	88	6	94	72	8	80	77	13	90	29	17	46	1,200		
II	108	4	112	100	10	110	72	7	79	49	15	64	31	15	46	1,143		
III	44	16	60	58	26	84	79	45	124	132	33	165	86	47	133	2,142		
IV	3	4	7	13	2	15	46	1	47	80	5	85	66	11	77	1,062		
V	24	8	32	42	32	74	81	38	119	73	36	109	30	48	78	1,497		
VI	20	12	32	34	28	62	63	42	105	87	34	121	38	71	109	1,739		
VII	40	7	47	55	13	68	79	19	98	108	26	134	97	57	154	2,056		
VIII	20	7	27	40	8	48	84	7	91	173	9	182	61	19	80	1,653		
IX	40	18	58	54	10	64	61	7	68	56	14	70	15	21	36	981		
X	69	10	79	81	18	99	91	19	110	95	11	106	52	19	71	1,467		
XI	52	10	62	82	14	96	97	11	108	110	21	131	41	36	77	1,678		
XII	77	-	77	55	2	57	45	1	46	72	3	75	46	11	57	1,038		
XIII	41	7	48	75	11	86	85	12	97	164	6	170	48	29	72	1,701		
I-XIII	617	98	715	792	170	962	965	207	1172	1278	224	1502	729	318	1047	19,358		
PRAGA XIV/XV	76	87	163	73	173	246	73	149	222	64	105	169	34	113	147	3,017		
XVI-XXVI	231	798	1029	153	1000	1153	71	781	852	47	301	348	23	367	390	10,057		
GREATER WARSAW	924	983	1907	1018	1343	2361	1109	1137	2246	1389	630	2019	786	798	1584	32,432		

\*based on "Tablica"VIII in "Rezultaty...", vol.I, part II

account for the building as a quantitative unit in the data recorded at street block scale. The statistical investigation is thus restricted to the municipal districts (tables 9<sup>a</sup>, 10 and 11<sup>a</sup> based on "tablice" XIII-XXIV in the second, statistical data part of the first volume of the census publication). To compensate for this set back in building form analysis, it is necessary to count the buildings composing properties within certain street blocks under detailed investigation, by referring to the 1:2500 scale base plan (cf. "Nalewki Tenement District" case study in Chapter 12).

Applying building components to tenement house typology

The six property types identified according to their building components and flat subdivision, correlating with the functional zones proposed for metropolitan Warsaw in 1914, represent model building forms. The reality of Warsaw's physical urban structure, certainly no less than of pre-modernist European townscapes in general, was infinitely more intricate, inconsistent; in places random and chaotic, frequently unregulated, arbitrary and as much beyond systematic rationalisation in urban analysis as in urban planning before the Nazi divebombers, flamethrowers, mortar cannon crews and "Vernichtungskommando" each had their day, to be followed by optimistic socialist-realist and even brighter later-modernist town planners.

In Fig. 3.1 property types comprising 1, 2, 3, 4, or more building components, which are hypothetically identifiable in Table 9a, have been located on the revised

Lindley plan from 1925.

#### SINGLE-BUILDING PROPERTIES

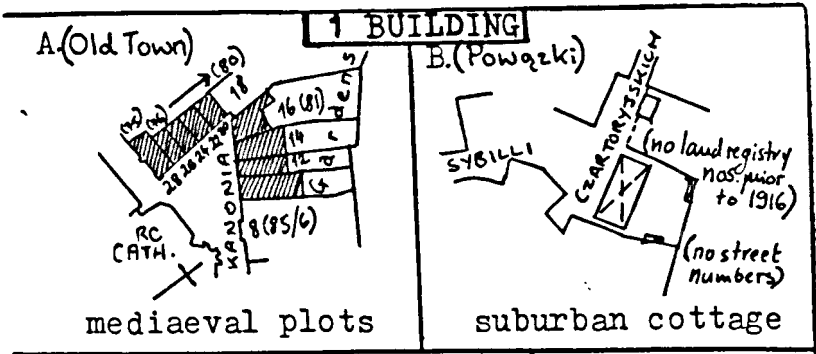
288, or more than one quarter, of all developed properties in the Castle (I), New Town (II) and North-Central (XII) *arrondissements* incorporated just one building element, these being concentrated in the Old Town and its former, mediaeval *faubourgs*. The houses fronting Kanonia Place at the back of St. John's Cathedral, occupying plots demarcated in the middle ages, were originally raised in the 15th. or early-16th. centuries, successively redeveloped and redesigned.<sup>250</sup>

Elsewhere in the Mid-Town and Praga the proportion of such building types rarely exceeded 10%, except in Nowy Świat *arrondissement* (X); cf. CBD-F inner core district in Chapter 5.

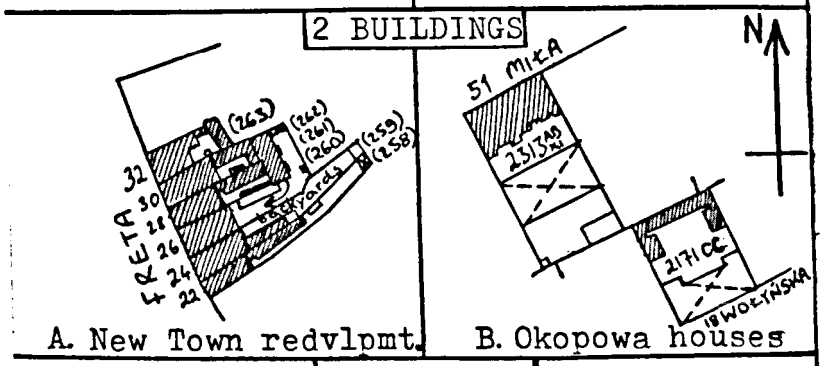
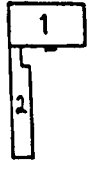
In the outer city single-building properties were very numerous (i.e. 1029), the greater part of which (798) were entirely wooden, accounting for cottages and small farm houses in outlying areas unaffected by urbanisation (especially in *arrondissement* XVI, XVII, XX, XXI, XXII, XXIII and XXVI). The sample suburban house selected to illustrate this building form comes, however, from Powązki shanty town; note the absence of land registry numeration and even - in Powązki at least - the lack of house address (cf. "The anti-tenement city" in Chapter 8).

Figure 3.1: Building components in developed properties based on the revised Lindley Plan of 1925

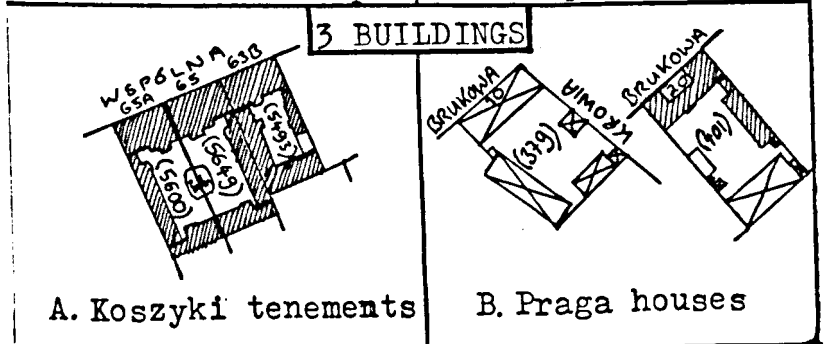
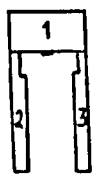
1.



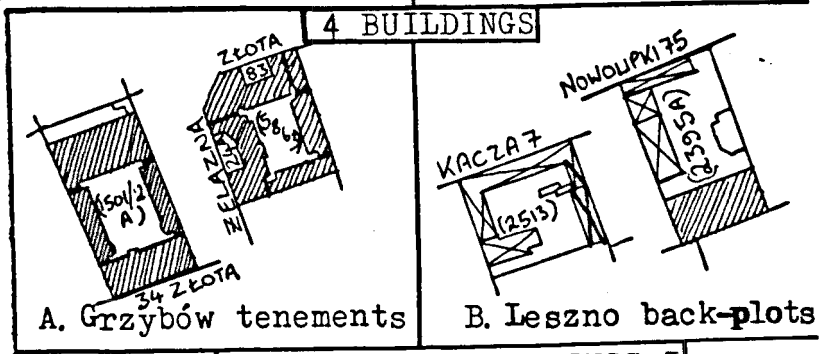
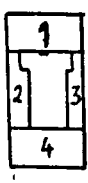
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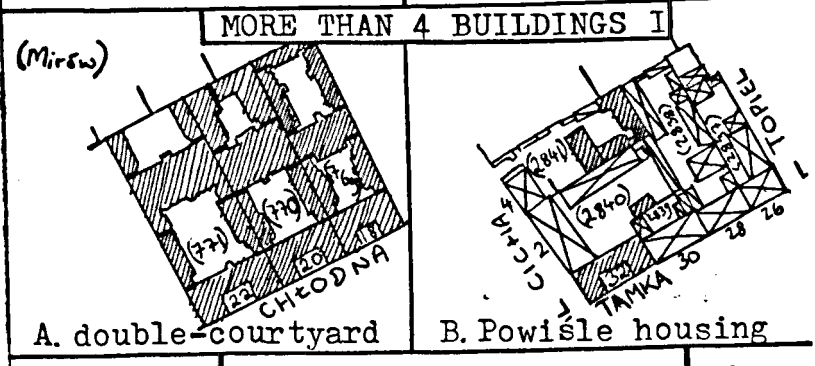
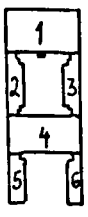
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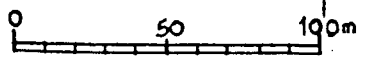
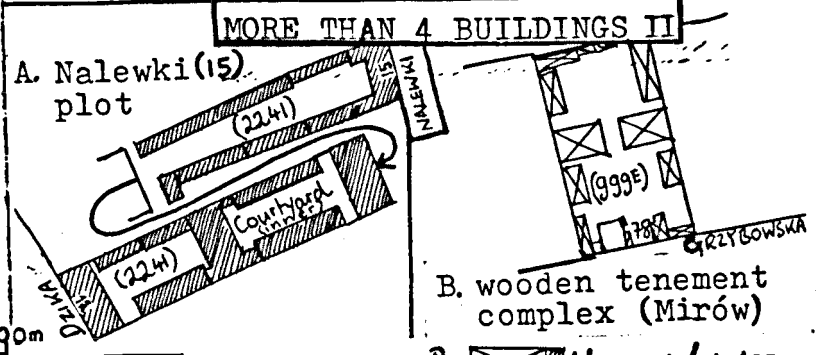
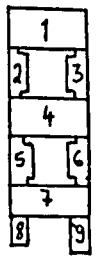
4.



5.



6.



Scale 1 : 2500

A. BRICK BUILDING

B. WOODEN/MIXED BUILDINGS

## 2-BUILDING PROPERTIES

Mediaeval Warsaw's suburbs, following growth orientations defined by Freta/Zakroczymska (II), Długa (II and XII) and Krakowskie Przedmieście with Senatorska (I and XII) streets had been, excluding religious temples and magnatial residences, almost entirely wooden. Merchants' town houses, surviving to a large extent until World War Two and subsequently reconstructed, were raised from the late-17th. through to the early-19th centuries on plots of somewhat greater dimensions than those within the Old Town defence walls, invariably including a second, service building or mews for servants, stables and storage space. Burghers' houses on Freta Street originating from the 18th. century, but undergoing apartment subdivision and some redevelopment (tenement infill) from the late-1890s, comply with this property type.<sup>251</sup>

Properties made up of 2 buildings were more numerous in the outer than the inner city, accounting, together with single-building houses, virtually two-thirds of all developed properties, of which 1798, or more than 82%, were built entirely or at least partially of wood. Examples of wooden and mixed-constructional material properties comprising 2 buildings have been taken from Okopowa inner-urban commissariat (V). In the case of 51 Miła Street (land registry number 2313AB9), the frontal building had been constructed from brick and the parallel outbuilding from wood, while in Wołyńska 18 (2171CC) the configuration was reversed. Both properties were situated in the street block designated no. 116 by the 1919 census (refer to street block analysis in Chapter 12).

It has been observed that wooden construction in

Okopowa district, representing 13% (i.e. 189) of all buildings, continued to figure disproportionately among the tenement belt quarters. In Mirów (VII) the proportion of wooden houses fell to 10%, or 205 of all buildings, but rose substantially in Leszno (III) to 348 and as many as 424, or 25% of all buildings, in Towarowa (VI). The base plan reveals that although wooden development in western commissariats III, VI and VII was mainly concentrated in the respective enclaves of Wola suburb incorporated into Warsaw City from the mid-19th. century, in Okopowa district wooden houses were located mainly within the tenement belt, giving rise to the hypothesis of wooden tenement development (cf. "Okopowa" tenement belt district (T-4) in Chapter 6 and "The wooden tenement house" in Chapter 8)

### 3- AND 4-BUILDING PROPERTIES.

3-building configuration was most consistently represented throughout the metropolitan area, accounting for 22.16% of all developed properties in Greater Warsaw and between 1/5 and 1/4 of properties in all districts with two major exceptions in North-Central commissariat/XII: 14.74%, and Czerniaków/XXI: as high as 28.40%.<sup>252</sup>

It is proposed that properties comprising 3 buildings are best interpreted as a temporary building form in the evolution of the Warsaw tenement house. Plots demarcated in the middle ages, ranging from 5 to 10 metres in width, were too narrow by far to accommodate the barracks-type configuration of frontal, back- and 2 sidebuildings. Only wholesale redevelopment of Warsaw's mediaeval quarters could have permitted tenement house construction of the kind

carried out in the Mid-Town before 1914, and this redevelopment was not to occur (although two street blocks of merchant houses were cleared after 1864 to make way for improvements on Krakowskie Przedmieście; cf. CED-B inner core district in Chapter 5). As a consequence, the Old Town became a discard zone during the late-19th century urban transformation of inner-central Warsaw, while the New Town, together with other quarters predating the industrial age, were submitted to piecemeal uncoordinated redevelopment which amounted to erecting additional floors or backbuildings in older houses or demolishing to make way for tenement infill projects of 2 or 3 buildings squeezed into the narrow plots.

Moving beyond the "historic" city centre parcellisation took on a very different pattern:

"In Warsaw building plots demarcated in the 18th. century with an approximate width of 21 metres and depth of between 30 and 35 metres tended to predominate."<sup>253</sup>

Assuming private house owners were as a rule anxious to secure maximum returns from their possessions, building plots as a matter of course would have become increasingly subject to intensified development during the 1864-1914 period; a half century witnessing unprecedented rises in land values together with rents. The supposition that property owners sought to develop their real estate to its maximum capacity is born out in pre-war town plans by the exceedingly high density building fabric of inner-leftbank Warsaw. Intensive plot parcellisation in previously agrarian areas of the leftbank inner city encompassed by Lubomirski's customs wall, followed by subparcellisation,

especially in the 1890s and early-20th century, much altered plot structure; thus severely reducing the applicability of Szwankowski's standard plot dimensions. Sites in the tenement belt might in fact range from anywhere between 60 metres in width and 220 m. in length to a mere 5 m. by 25 m.

On the other hand, and very much echoing the gridiron street network, which was also mainly the product of 18th century urban regulation, the Warsaw building plot with remarkably few exceptions conformed to a rectangular plan. This regular quadrilateral pattern of real estate parcellisation shaped the tenement house as a building form, the first "experiments" in which were identified by S. Herbst on Marszałkowska Street: no. 149/1065 from 1857, no. 147/1370 and 115/1383 from 1862. These were early examples and in the 1860s still mere foreshadows of what was to come, but it was these projects which established the trend in largescale house construction until at least the outbreak of World War One.<sup>254</sup>

A striking contrast exists in the building plans of prototype private tenements raised on Marszałkowska Street and the philanthropically-inspired "workers'" house from the same time in Solec-Powisłe consisting of just 2 connecting frontal buldings which were intended to back onto a spacious courtyard. The fate of the "Civil Society for the Building of Artisans' and Workers' Houses" in the self-motivated and self-interested late-19th. century, which also provides a striking contrast with the great fortunes amassed by many tenement house owners, has already been dealt with (cf. "Workers' Housing in Solec-Powisłe" in Chapter 7).

In the revised 1:4200 scale town plan of 1867, in so-called virgin areas of the city which were to become the tenement belt, housing developments may be observed



incorporating 3 or just 2 building elements. These projects are indicative of the early stage reached at that time in tenement house evolution (cf. Plate IX<sup>b</sup> and Table 9<sup>b</sup>).

The 3-building tenements from Koszyki-Pomological district were not, however, put up until the early-1890s. The property designated number 5600 at the Land Registry Office, originally demarcated in c. 1892, was subdivided, presumably around the time of construction, when one half of the former property (Wspólna 65) was registered no. 5649 (after 1893). The resulting twin housing projects, consisting of identical frontal, side- and back-buildings looked onto a shared courtyard, expansive by inner-Warsaw norms (i.e. 25m x 27m), which accommodated a small central garden also belonging to the two properties. This solution was applied widely in Berlin to maximise light and space for wealthier middle-class tenants willing to pay higher-than-average rents.<sup>255</sup> Warsaw's southern tenement districts were inhabited by "members of the wealthiest groups and qualified employees" (cf. "Koszyki" and "Aleksandryjska-Ujazdów", T-9 and T-10 tenement belt districts in Chapter 6). Supposing a connection between social structure and residential property construction did exist, this building form in Koszyki (XI), Aleksandryjska (XIII) and Ujazdów (IX) commissariats, raised during rather than as a precursor to intensive urbanisation, may be regarded as representing housing designed specifically for wealthy middle-class tenants. Such properties may have contained less than 20 apartments and as such should be interpreted as tenement housing rather than "barracks" housing; i.e. the difference between the German terms *Mietshaus* and *Mietzkaserne* (cf. observation no. 9 in

"Residential patterns and urban morphology" section of Chapter 3; also "Medium-tenement and barracks housing in the Mid-Town" section of Chapter 2).<sup>256</sup>

Properties of mixed constructional materials identified from the base plan (1925) in Praga, the leftbank inner-peripheral districts of Powiśle or Wola, as well as parts of proletarian Okopowa, Leszno, Mirów and Towarowa tenement districts are more indicative of a transitional stage reached in "barracks" house evolution (cf. diagrams 3B and 4B of Fig. 3.1). In the 1919 census publication, for example, it was concluded that:

The percentage of barracks houses in Praga is smaller" (i.e. than in the Mid-Town), "while in the suburbs it is comparatively minor."

and

"Middle-sized houses originally constituted the standard property type in the towns, and it may be observed that the percentage of such properties remains quite high in the Mid-Town. In the outskirts the medium house would seem to represent a transitional form between country houses (i.e. manor houses or wooden cottages) or town houses (i.e. medium-sized burghers'/merchants' type) and the modern barracks properties."<sup>257</sup>

Analysis of property sizes (based on average numbers of apartments) and housing densities (according to average numbers of residents in rooms) in relation to street block has revealed that properties in Praga, Powiśle and Wola might contain as many apartments as standard properties in tenement belt districts (cf. "Summary data and calculations in inner-peripheral street blocks" in Table VII of Annex I;

also introduction to Chapter 7). The "barracks" houses of the inner-urban peripheral zone were subdivided into predominantly single- or 2-room apartments and the resultant building form did not resemble that of homogenous, compact and closed-courtyard construction in the tenement belt. In the urban-peripheral belt the tenement as a building form had come to occupy only a part of the street block. The ground plans of selected properties from Praga (3B) and peripheral plots in Leszno commissariat (4B) recorded in Fig. 3.1 are more typical of property development in these quarters than of fully-evolved tenement house forms (also present, but in a minority). Properties of mixed constructional materials or only partial utilisation of the building plot provide evidence of the transitional stage reached in tenement house development here.

It is no coincidence that analogous building configurations to those observed in Praga, Leszno and other inner urban regions situated on the edge of the tenement belt frequently show up on detailed plans of the tenement belt itself from before and during its urbanisation in the late-19th. and early-20th. centuries (cf. H. Świątkowski plan of 1852, the Engineer-Officer Corps plan of 1867 and Lindley 1:2500 general plans of leftbank Warsaw from 1897 and 1903). "Transitional" property types survived within the tenement belt; particularly in more remote street blocks of Okopowa, Leszno, Mirów and Towarowa commissariats, but these represented a comparatively minor break with the overall homogeneity in tenement house development up to the former customs wall.

Apart from building plot shape and dimensions (in a majority of cases not exceeding, or often falling well short of 30m x 35m), minimal courtyard dimensions stipulated by



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the authorities of 9.14m x 9.14m (operating from 1858 until at least 1905 and apparently extended in the late-1890s to the St. Petersburg standard of 136.5m<sup>2</sup>) would have further encouraged the shaping of tenement house plan to comply with the characteristic frontal house, parallel back-building and 2 connecting sidebuildings encompassing the central courtyard.<sup>258</sup> This standard configuration had become by 1914/1919 most widespread in Grzybów district (VIII) where 173 4-building properties (i.e. 42.5%) out of 428 developed properties were recorded, followed by Nalewki (IV: 36.8% of all built-up properties), Aleksandryjska (XIII: 35.9%), Leszno (III: 29.2%), Towarowa (VI: 28.2%), Koszyki (XI: 27.6%), Mirów (VII: 26.8%) and Okopowa (V: 26.4%) commissariats. Grzybów and Nalewki, followed by the western and comparatively more affluent southern Mid-Town districts, have been proven to most consistently represent the Warsaw "City of tenement houses" (cf. cartogram II in Chapter 2, Table 5 in Chapter 3 and Table 8 in Chapter 5 as a summary of Table VII in Annex I). In the central-inner core *arrondissements* (I, X, XII, but also the New Town (II) as an area of tenement infill), smaller property configurations predominated reflecting smaller-scale plot structure and the pre-industrial age urban fabric. However, it is worth noting that 4-building properties substantially outnumbered 2- and 3-building forms in the North-Central commissariat (XII), suggesting tenement development in previous back-gardens or infill projects had gained supremacy over "transitional" property types before 1914. Finally, an urban divide of roughly equal proportions existed in Ujazdów (IX) commissariat between the above-escarpment quarters of intensive tenement construction (71 stone-brick properties composed of 4 or more buildings, apart from a significant

number of plutocratic villas) and the riverside proletarian district of Solec-Powiśle where the greater proportion of "transitional". 2- or 3-building houses may be expected to have been located, together with 70 properties of wooden or mixed construction.

The table below emphasises the divide expressed in building forms between the inner leftbank districts of tenement house evolution and the outer city (figures based on the 1919 survey):

	INNER CITY	OUTER CITY	PRAGA
3-building properties	1172	852	149
4-building properties	1502	348	105

Although as many as 473 properties were recorded in the suburban *arrondissements* containing more than 20 apartments, the tenement house was still in the earliest stages of evolution here. 2-building properties marginally outnumbered 1-building types, while over 90% of 3-building configurations were of wooden or mixed construction, just as only 47 of the 348 4-building properties consisted of entirely stone-brick structures.

In Praga brick tenements were more numerous than mixed-constructional properties, but the "transitional" 3-building type outnumbered 4-building properties; echoing the fact that barracks housing in absolute numbers was less important than medium-sized housing, even though more apartments were located in the former property type than the latter (cf. Table 3 in Chapter 2).

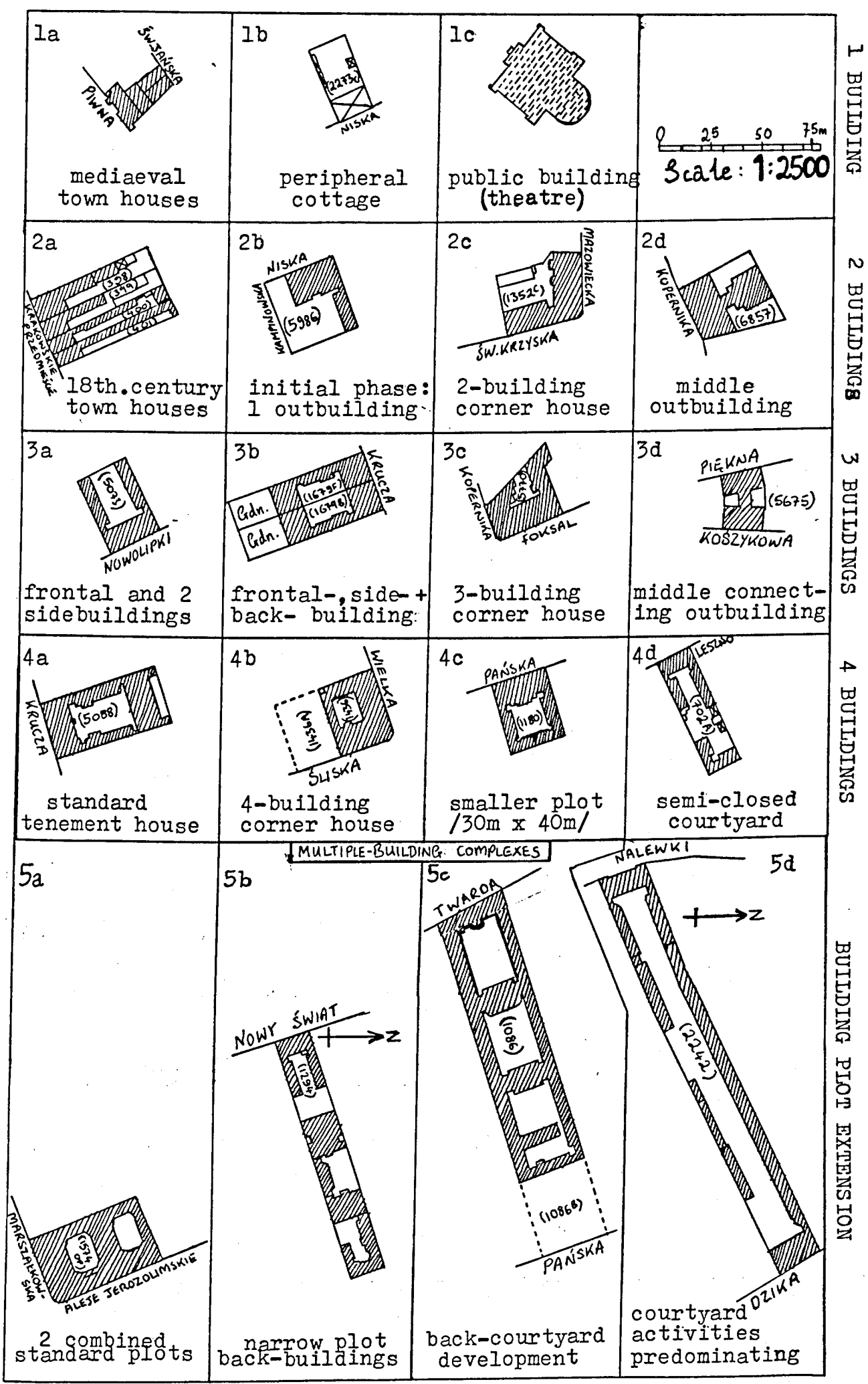
In the Mid-Town properties of wooden or mixed

construction can be expected to have survived primarily in Powiśle and outlying parts of western commissariats V, III, VII and VI, including (inner) Wola Suburb. The breakdown of developed properties into their building components has underlined the overwhelming extent to which tenement house construction was focussed on the leftbank inner urban area.

### MULTI-BUILDING PROPERTIES

Where the plot was of sufficient dimensions, the assumed tendency during the 1864-1914 period to maximise land utilisation would be expected to produce lateral and back-building, second courtyards, elongated backyards accommodating back-tenement houses (*hinterhause*), small factories, workshops etc.. In Fig. 3.1 two broad configurations of multi-building property development have been recognised from the 1925 base plan. In 5A deeper plots (25-30m x 90m) have permitted development of a rear courtyard with outbuildings, while in 5B a chaotic group of mainly wooden houses and outhouses taken from the riverside district of Powiśle has been identified as an inner-peripheral analogy. In 6A an elongated parcel of real estate connecting Nalewki and Dzika streets had been retained. Only partial tenement backbuilding, in the form of two parallel outhouses, creating two additional courtyards connected by passageways, had taken place. This plot would appear to have not been subdivided into Dzika Street- and Nalewki Street- orientated properties, like most neighbouring plots, for functional reasons; i.e. its courtyard served as a bazaar-market. Many of the groundfloor and even upper-storey apartments would have been

Figure 3.2: Hypothetical phases in tenement house development





rented by shopkeepers, artisans and handicraftsmen in line with the economic activities and occupational structure of Warsaw's principal Jewish district (cf. "Nalewki and Grzybów tenement districts" in Chapter 2 and "Nalewki tenement belt district", T-3 in Chapter 6).

The group of wooden houses on Grzybowska 78 by 1914 had become an uncommon property type within the former customs wall. Originating from the 1860s as a suburban property on an important east-west access route, this wooden analogy of the tenement house had apparently escaped redevelopment both during the speculative 1890s and intensive changes of the early-20th century. According to the 1-day census of 1882, Grzybowska 78 (land registry number 999E) had consisted of 52 flats and accommodated as many as 218 residents.<sup>259</sup>

The evolution of tenement house ground-plan

Hypothetical phases in the development of tenement house layout have been interpreted by documenting characteristic configurations of developed properties in Fig. 3.2, identified from the base plan of 1925, as well as 1:4200 or 1:2500 scale town plans dated 1852, 1867, 1897 and 1903. All examples have been taken from the tenement belt or inner urban core study areas of the leftbank Mid-Town.

Properties composed of single buildings are associated with an early phase in urban growth, represented by plots intensively built up in the 16th. and 17th. centuries (rather, it should be stated, than in the actual middle ages,<sup>280</sup> or by wooden manor houses and cottages in peripheral or suburban quarters of the centre (refer to

diagrams 1a and 1b in Fig. 3.2). Religious temples, market halls, theatres and other edifices designed for public use frequently were made up of a single building (diagram 1a), although such forms did not play any direct part in the shaping of tenement house ground-plan (note: public buildings might also consist of 2, 3 or more components, but these have not been included in Fig. 3.2). Attention, however, needs to be paid to the magnatial-noble palatial residence and the overall representative effect of its forecourt with lateral wings and a usually monumental entrance gateway, which the middle classes would have sought to immitate in their own, inevitably more modest urban homes (cf. case study examples in Chapter 11).

The merchant town house has tended to fall under the category of medium-sized property; i.e. comprising between 4 and 20 apartments in the city's pre-industrial and early-industrial urban expansion (from the 17th. through to the early 19th. centuries). Such house types arose in the former mediavel suburbs outside of the Old Town defence walls on narrow, elongated plots (diagram 2a). From the 1770s ribbon development became pronounced along arterial roads such as Nowy Świat (as the southern extension of Krakowskie Przedmieście), Elektoralna-Chłodna and Zabia-Graniczna Twarda (as western and south western prolongations of Senatorska street), Leszno (continuing westwards from Długa/Przejazd streets), Zakroczymska (as a northern extension of Freta Street), Bednarska (leading to the former pontoon bridge over the Vistula) and from c. 1821 Nalewki as the high street of a new, segregated Jewish district. Plot dimensions increased beyond the line of the original early-17th century Sigismund Vasa defences (cf. Fig. 2.4), including frequently recurring parcels of c. 30m

x c. 35m observed by E. Szwankowski. It is on such plots fronting arterial routes emanating from the city centre that the earliest building layouts to anticipate tenement house configuration appear from the late-18th. century.

Apart from a single lateral outbuilding (diagram 2b), these precursors of tenement ground-plan might incorporate a second side-building (diagram 3a), while by the mid-19th. century isolated examples of closed-courtyard properties made up of 4 buildings had already taken shape on Nowy Świat, Elektoralna, Żabia, Graniczna, Leszno, Nalewki, Zakroczymska and Bednarska streets, apart from in larger city-centre plots, but also in back- or side- streets (Chmielna in X, Dzika, Nowolipie and Przejazd in III-IV as well as Królewska in I-VIII). It should be emphasised that these building complexes did not constitute barracks-type housing, even though in certain cases the barracks housing ground-plan can be seen to have already fully-evolved (cf. H. Świątkowski 1:4200 plan published in 1852). Reference to the "Property Register for the City of Warsaw in 1819" reveals, for example, that the property designated Land Registry number 659 on Leszno Street consisted of:

(A frontal house) "Stone-brick with one" (upper) "storey and outbuildings on the left and right hand sides" (i.e. from the entrance gateway), "a stable and coach-house."<sup>261</sup>

This town-house, even by early-19th. century standards, represented quite a modest scale in merchant housing (owner Kwiatkowski), but its ground-plan already compared with the layout of frontal house with 2 side-buildings depicted in diagram 3a of Fig. 3.2. An additional configuration has been observed on the base plan where medium house

development, predating the "speculative years" (*Gründerjahre*) of large-scale tenement construction, and later back-courtyard outbuildings separated from the older part of the property created a semi-closed courtyard (diagram 4d).

The intensification of building plot development becomes manifest by comparing meagre property statistics compiled during the 1864-1914 period, summarised in Table 9b below.

Year	BUILDINGS		Industrial and service buildings	Total no. of: build-ings proper-ties		Mean number of buildings per dwlpd. property
	brick	wood				
1850	1176	4388	not recorded	5564	c.2500	2 buildings 2.22
1868	3260	4677	24,518	7937	2956	2/3 buildings 2.69
1882	9708	8350	7004 buildings "uninhabited"	11054	3959	2/3 buildings 2.79
1919	16623	2315	7.9% uninhabited	18938	5415	3/4 buildings 3.50

Table 9b: Building components in properties 1850-1914/19  
(Leftbank Warsaw)

Records kept by the municipal authorities during Polish home rule (1815-1868) took account only of building components or 'houses' (*domy*), and did not recognise the concept of developed property. Property/real estate divisions were listed in property registers renewed annually or every 2-5 years. Estimations of developed properties in 1850 and 1868 have had to be based on property registers compiled under the direction of H. Świątkowski for 1851 (published in 1852) and W. Dzierżanowski for 1868 (published in January 1869). Public buildings, factories and

especially plots recorded as "not built upon" (*nieszabudowane*) in Dzierżanowski or (open) space" (*Plac*) in Świątkowski, as well as gardens (*ogród*) have been deducted from the overall number of properties.

In addition, properties in the Northern District of Fawory-Zoliborz, demolished in 1854-'56 in the wake of those already liquidated to make way for the Russian Citadel from 1832 have been excluded (cf. "The eradicated Northern District" in Chapter 7). The Świątkowski register was less specific in its defining of developed or undeveloped property; consequently the final figure calculated for built-up properties within the customs wall, including Powiśle district as well as part of Wola suburb, may be slightly exaggerated. The Dzierżanowski register defined developed, state-municipal, military, industrial and undeveloped property in greater detail; thus, the estimated number of developed properties in leftbank Warsaw can be presumed to mirror the actual situation in 1868. In 1852 out of a total number of 2710 real estate divisions (excluding Fawory-Zoliborz district altogether), some 2500 would appear to have been built up to a lesser or greater extent. By 1868 there were 3426 plot divisions in the West Bank, of which, according to Dzierżanowski, 2956 were built up.<sup>282</sup>

The number of buildings in 1868, designated "houses" (*domy*) by W. Załęski in his "Comparative Statistical Outline of the City of Warsaw", drawn from the municipal records compiled until that year, amounted to 7937, more than half of which were made of wood. Breweries, distilleries, warehouses, storage outbuildings, timberyards, stables and coach-houses, amounting to almost 25,000 subsidiary, theoretically uninhabited buildings, were classified separately. Public buildings were apparently excluded

altogether from the count. Only buildings comprising essential elements in evolving tenement house form have been included in this breakdown of developed properties into building components. Subsidiary service constructions, independent factory complexes and public buildings have been discounted as largely irrelevant to the analysis of tenement house ground-plan. Service buildings of typically wooden construction, such as coach-houses, stables or storage buildings, were to largely disappear from the unfolding tenement house urban landscape during the 1864-1914 period.

The number of brick-stone and wooden building components in 1850 was calculated by back-counting from annual records kept in the Town Hall of new "houses" raised between that year and 1868; 2084 stone-brick and a mere 289 wooden buildings.<sup>263</sup>

Building data drawn from the "Property survey" of the 1882 One-Day Census (*Spis jednodniowy*), together with the 1919 survey record both developed properties and "houses" (1882) "buildings" (1919). The number of brick-stone buildings virtually tripled between 1868 and 1882, although in the One-Day Census no distinction was made between so-called houses and industrial or service buildings; 7004 "uninhabited" buildings have been subtracted from the total of stone-brick and wooden buildings (18,058). By 1919 (signifying to all intents and purpose the situation in 1914) an additional 6915 stone-brick buildings had been put up in Warsaw's Mid-Town commissariats, while the fall in wooden buildings (6035) had been almost equally dramatic.

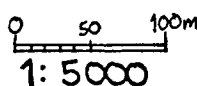
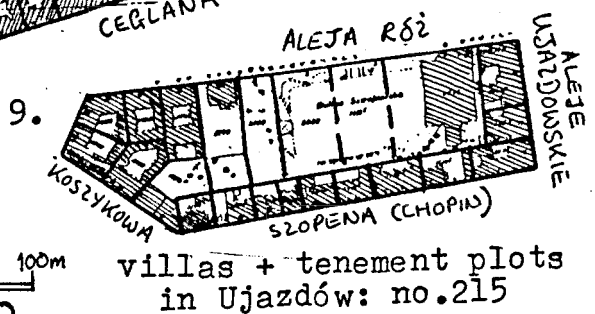
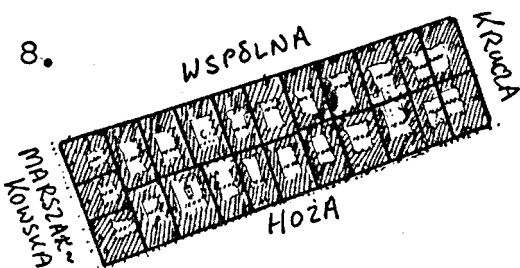
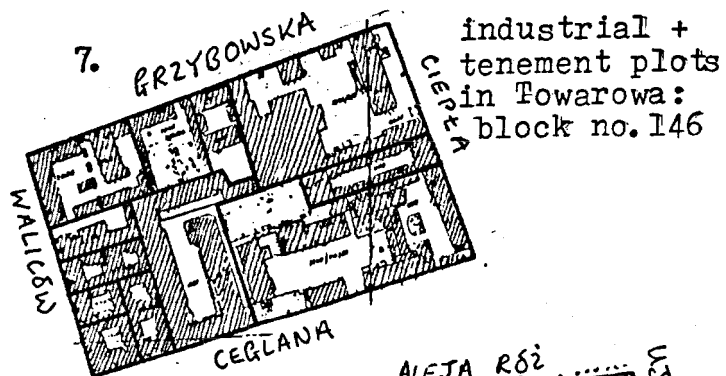
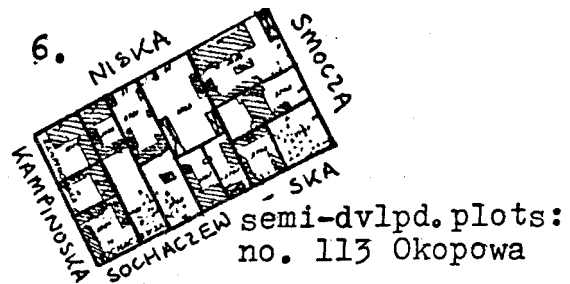
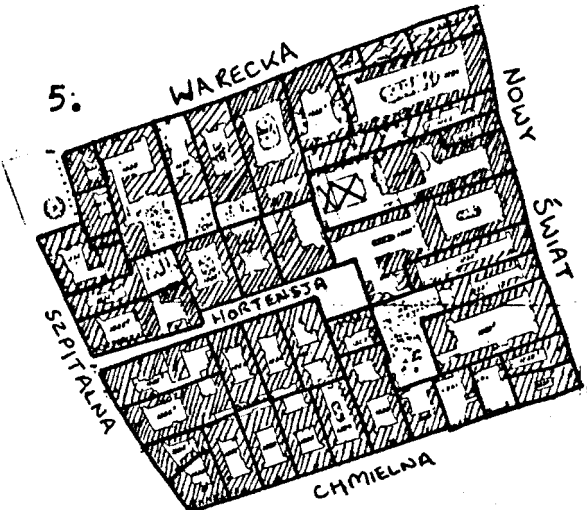
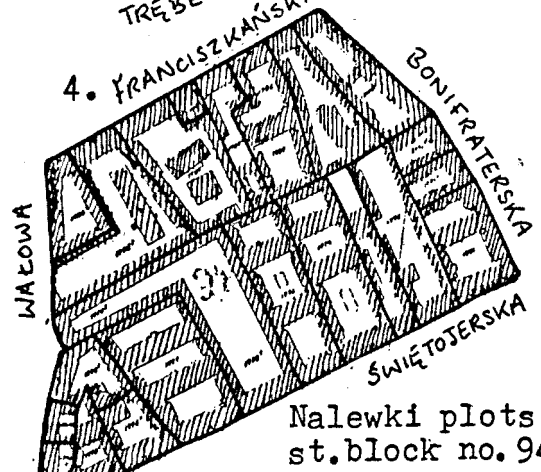
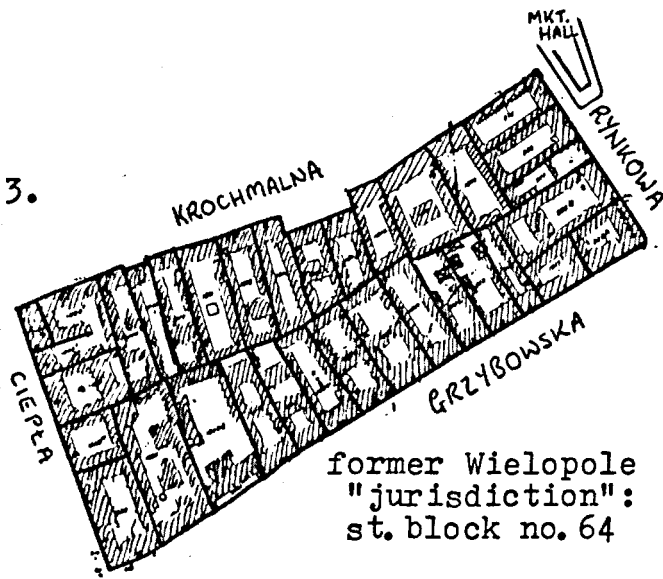
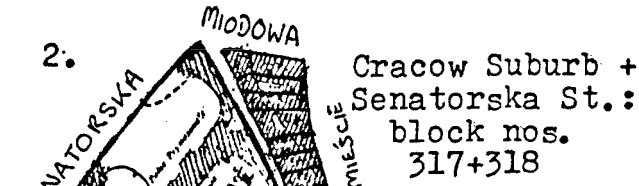
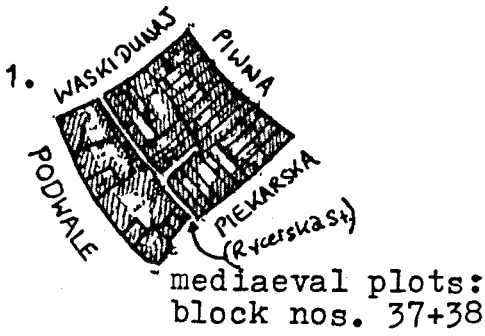
Some 1540 non-residential buildings were counted in 1919. Allowing for the fact that a mere 110 developed properties had been classified uninhabited, as well as the observation made in the census publication that most

factories and public buildings accommodated a concierge and his family, this is a comparatively insignificant figure which also includes buildings left empty after the 1914-'18 War. A very marked decline in uninhabited agrarian or service buildings between 1868 (24,518) and 1914 (1540), with a simultaneous rise in stone-brick housing, is indicative of the "tenementisation" of Warsaw's urban landscape during the period under investigation.

The mean number of buildings composing leftbank Warsaw properties is seen to rise from 1 or 2 in the mid-19th. century to 3 or 4 by 1914. Outnumbering brick-stone "houses" almost four times in 1850, wooden buildings in 1919 accounted for a mere 12% of all building components. Bearing in mind a greater proportion of wooden houses was situated in peripheral districts (Powiśle, Wola, also outlying parts of Leszno, Okopowa, Towarowa and Mirów tenement belt districts), as well as the fact that 1- or 2-building properties were concentrated in the city centre, the dominant configuration of 4 buildings per property can be seen to apply directly to the tenement belt (diagram 4a in Fig. 3.2; also 4c where the plot was smaller). This ground-plan did not begin to prevail in the West Bank until after 1882 when the mean number of building components per property still fell slightly short of 3. Three broad phases in tenement house development are discernible from the results of Table 9<sup>b</sup>:

1. an innovative phase featuring the earliest "barracks" house prototypes (1850s and 1860s);
2. the first stage in large-scale tenement house construction in the *Gründerjahre* of the 1870s;
3. successive building phases (1890s, early-20th. century) during which the tenement house became the

Figure 3.3:  
Street parcellisation in selected Mid-Town street blocks





dominant building form in Mid-Town Warsaw.

Corner houses usually occupied smaller plots (4b), while the natural emphasis in building plan on the two street-facing elevations frequently encouraged a design consisting of 3 (3c) or occasionally just 2 (2c) building components, although the latter configuration was rarely applied (e.g. in the model workers' house projected by H. Marconi on the corner of Czerniakowska and Szara streets; cf. "Workers' housing in Solec-Powisłe in Chapter 7). Tenement ground-plans incorporating 2 or 3 buildings have been identified in diagrams 2<sup>d</sup> and 3<sup>d</sup> where the lateral outbuilding, instead of being raised along the edge of the plot, stood in the centre. Such ground-plans were conceived in an attempt to maximise light in tenement apartments located on lower storeys, but, in contrast to Berlin and Paris, occurred infrequently in Warsaw, being intended for the highest-paying tenants. The corner house (*kamienica narożna*), apart from being an important element in street profile attracted more speculative interest than standard tenement properties possessing just one street frontage. As a consequence, the corner tenement was often the last element in the street profile to be put up and might be one or several storeys higher than neighbouring houses.<sup>264</sup>

Plot parcellisation in Mid-Town street blocks tended to follow a familiar pattern (cf. 1:5000 scale plans in Fig. 3.3). Corner plots, reflecting their comparatively greater value, tended to be smallest, while plots taking up the middle areas of the street block would be expected to be the deepest. In the largest street blocks an access road might be laid out permitting the parcellisation of least accessible areas; e.g. Kapucyńska Street in the 12th. *arrondissement* (CBD-E), Hipoteczna Street in Nowy Świat

(CBD-F) and Kupiecka Street in Nalewki (T-3). In the largest plots maximum land utilisation in the form of back-courtyard development ensued, characterised by lower-grade tenements (diagram 5<sup>c</sup>), workshops, small factories or even private market emporia. Where pre-industrial town houses had occupied elongated plots; such as on Nowy Świat, Elektoralna and Leszno streets, former back gardens had largely given way by the early-20th. century to tenement outbuildings (5<sup>b</sup>). Tenement back-building was avoided in large or elongated private plots only if residential-speculative factors were of secondary importance to other functional considerations; e.g. plots connecting Nalewki and Dzika streets whose configurations were shaped by commercial activities (5<sup>d</sup>). The speculator Pinkus Lothe was relatively early on the Warsaw tenement property scene and for his pains succeeded in purchasing 2 adjoining plots in the very heart of the new commercial centre at the intersection of Marszałkowska Street and Jerusalem Avenue (Land Registry no. 15740P), which he had intensively built up around two closed courtyards in 1865-'66 (diagram 5<sup>a</sup>).

#### Developed properties classified according to the main function of building component

In Chapter 1 it was established that 98% of all developed properties in Greater Warsaw served a residential function to a lesser or greater extent. Having introduced buildings as a statistical unit in tenement house ground-plan and its evolution in 1864-1914, it might be reasonably expected that

functional activities in the Warsaw property would be more specifically identified through reference to the building component.

In Table 10<sup>a</sup> it becomes clear that residential buildings in 1914/19 accounted for as much as 80% of constructions in the Mid-Town commissariats, falling below 70% only in Towarowa (VI) factory district (i.e. c. 63%). Although 1154 industrial buildings, 1062 commercial houses and 610 public edifices in the Mid-Town districts amount to substantial statistics in themselves, it has to be born in mind that a majority of these buildings also provided accommodation; i.e. in smaller or medium-sized factories workers would be housed above or even below the work space, while in banks, offices or department stores rented apartments would be found on upper storeys. As far as Warsaw is concerned, defining property functions does not depend on differentiating between housing and non-residential building types (such as government-municipal buildings, theatres, libraries, museums, hospitals, prisons, hotels, exchanges, banks, warehouses, office buildings, railway stations, market halls, shops, department stores and factories), but in distinguishing exclusively residential properties from mixed-residential properties.

The number of buildings combining residential functions with industrial, commercial or public activities must be examined. Service or agricultural buildings, such as greenhouses, have been ignored on the grounds that they played no direct role in shaping and transforming building layout; 1/3 of all buildings in the outer city still consisted of such types. The greatest percentage of exclusively residential properties was registered in the suburbs, while Praga actually had a larger proportion of

Table 10:

Classification of buildings according to designated functions\*

"okrag"	Total number of buildings	BUILDINGS IN A GOOD STATE OF REPAIR						Buildings :		
		residential	industrial	farming	commercial	public	Total	incomplete	damaged	total
I	1200	931	44	83	64	67	1189	6	5	11
II	1143	941	29	66	42	39	1117	3	23	26
III	2142	1561	194	240	82	41	2118	8	16	24
IV	1063	922	29	18	72	21	1062	1	-	1
V	1497	1029	163	193	78	10	1473	11	13	24
VI	1739	1092	155	305	123	36	1711	8	20	28
VII	2056	1482	199	184	117	49	2031	3	22	25
VIII	1653	1366	55	75	114	37	1647	1	5	6
IX	981	676	42	145	69	30	964	6	11	17
X	1467	1162	60	113	61	56	1452	4	11	15
XI	1678	1245	73	149	105	82	1654	14	10	24
XII	1038	780	42	58	64	87	1031	2	5	7
XIII	1701	1381	69	117	71	55	1693	-	8	8
MID-TOWN I-XIII	19358	14570	1154	1746	1062	610	19142	67	149	216
PRAGA XIV-XV	3017	1908	220	624	157	56	2965	16	36	52
SUBURBS XVI-XXVI	10057	5736	413	3370	270	104	9893	20	144	164
GREATER WARSAW	32432	22214	1787	5740	1489	770	32000	103	329	432

\*based on "Tablica" XI in "Rezultaty...", vol. I, part II  
(Multi-functional buildings classified in accordance with primary function)

mixed-habitational properties (27.67%) than most Mid-Town *arrondissements*.<sup>265</sup> The dominance of residential functions in suburban properties, ignoring agricultural activities, reflects a lack of functional specialisation beyond the inner city. In Praga industrial and street market or other commercial activities were more concentrated than in most Mid-Town quarters where factories (apart from in Towarowa and certain parts of Mirów, Leszno and Okopowa commissariats) tended to be dispersed and small or medium in terms of production and workforce (16-100 workers). The proportion of developed properties without habitable buildings was comparatively insignificant; i.e. 1540 (7.9%), including 67 "incompleted" and 149 "damaged" buildings in the Mid\_Town, 197 (6.55%) in Praga and 221 (2.2%) in the suburbs.

Segregating residential properties in the Mid-Town districts according to the number of building components produces the following breakdown:

4-building purely residential properties	=	20.09%
3-building " " "	=	16.07%
2-building " " "	=	14.48%
1-building " " "	=	12.76%
multi-building " " "	=	7.29%
mixed-residential property types	=	29.31%

Apart from becoming the dominant residential building form in the inner urban landscape by 1914/1919, the tenement house also partially incorporated non-residential functions, revealed by the locating of commercial offices, workshops or light industrial premises in semi-residential tenement properties. Strzelecki and Krzywicki observed in 1919 that

the mixed-residential property was most typically made up of 2 residential buildings, the remaining components being secondary/mixed-residential or uninhabited, having been designed exclusively in a primary commercial or industrial capacity. The combining of residential and mixed-habitational or non-residential functions in multi-component properties composed of more than 4 buildings has been well underlined.

Frontal houses and outbuildings

A broad distinction was recognised in classifying the building components of properties between frontal, street-facing buildings and subsidiary side- or back-outbuildings. Allowance was also made for a relatively minor group of garden erections and centrally-situated buildings not obstructed from the street by frontal development. In municipal records of the early- and mid-19th. century, together with the property surveys of 1882 and 1891, frontal buildings were referred to as "houses" (*domy*), while throughout the study period one term was consistently applied to lateral and back development: *oficyna* ("outbuilding").

"Frontal houses usually offer the most favourable housing conditions, being the best installed buildings in properties" (i.e. with water, gas, electricity, etc.). "They possess an immeasurably important feature emphasised by sanitarians: the capacity to ventilate flats, which frequently does not exist in the flats of outbuildings."<sup>266</sup>

Over the pros and cons of "outbuilding" apartment life it might be worth comparing the words of Krzywicki and Strzelecki with those of the interwar publicist F. Lewicki (cf. "South-East Tenement Belt District" (T-10) in Chapter 6). However, assuming the hardened social instincts of the Warsaw petit-bourgeois to be idiosyncratic, accommodation in frontal buildings tended to offer healthier living in densely built-up properties and was most sought after.

68.28% of the 5415 developed properties in the Mid-Town incorporated brick-stone 1-building frontal houses (compared to a meagre 3.95% wooden houses). 7.98% 2-building brick-stone frontal houses accounted for the inner leftbank city's corner houses, while 9.79% of properties possessed no frontal building at all. In Praga the proportion of stone-brick frontal buildings fell substantially to barely 45%, including corner houses, while over 1/5 of inner-rightbank properties possessed no frontal residential buildings. In the suburbs some 19% of properties were fronted with houses constructed from inflammable materials, compared to 47.67% wooden frontal buildings.<sup>267</sup>

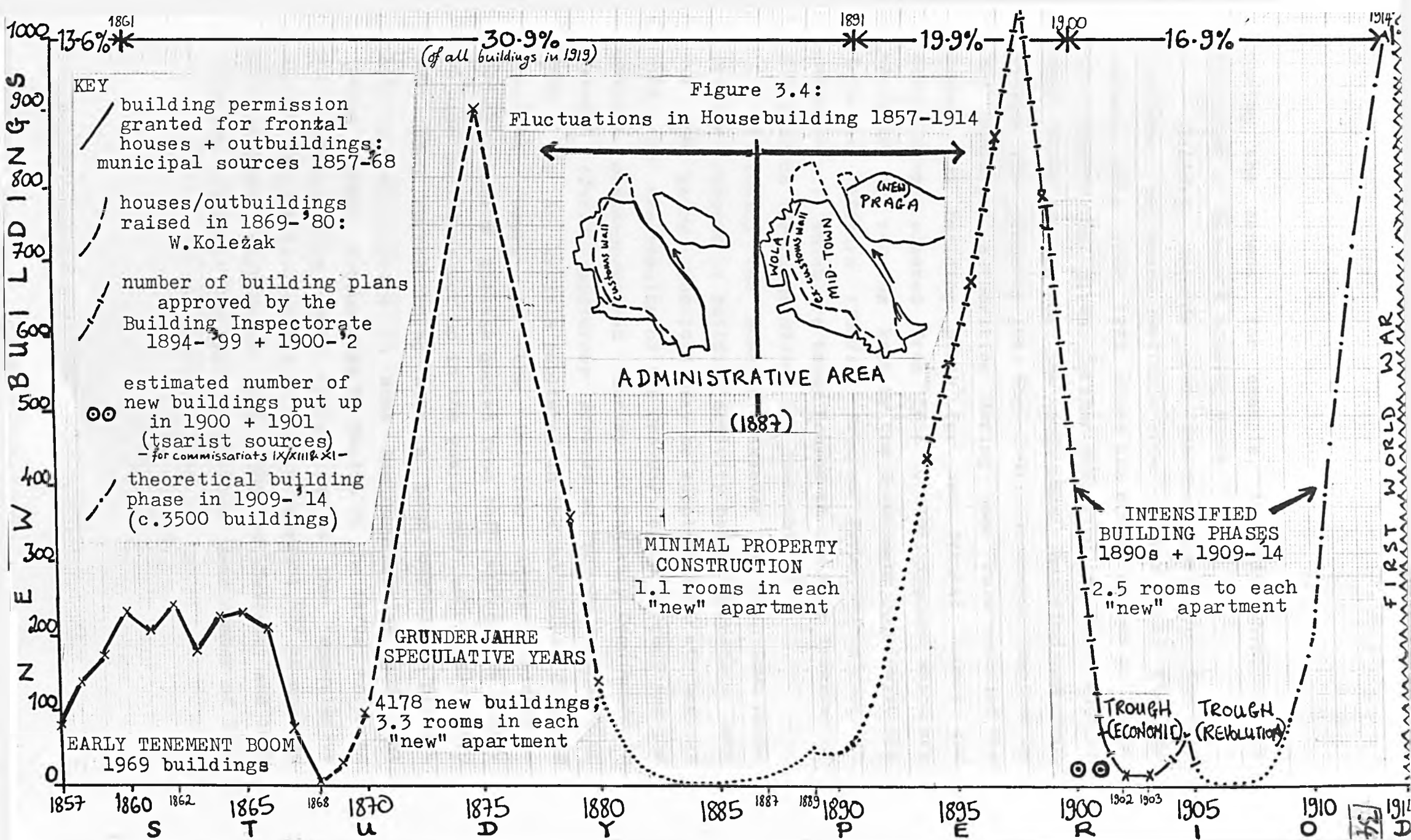
Housebuilding fluctuations in Warsaw's urban development  
from the mid-19th. century until 1914

In the 1919 property census efforts were taken to broadly assess the period of construction of all Warsaw properties (refer to Table I in the annex to Part III). The results indicate to some extent varying phases in the development of inner city districts and increasing emphasis from the turn of the 19th. century on suburban growth (incorporated into

Fig. 3.4). Furthermore, insight into the intensification of building within Mid-Town plots is provided by an additional classification of properties redeveloped primarily in the 1890s (c. 288) or early-20th. century (651). Unfortunately, owners failed to stipulate construction dates in as many as 971 (i.e. 18%) Mid-Town, 318 (33.6%) Praga and 1126 (29.8%) suburban properties. Data pertaining to the age of Warsaw properties in 1919 thus failed to account for 23.8% of all properties, as well as not allowing for different periods of construction within the same plot; the original building date of redeveloped properties was not given. Building components within the same complex frequently originated from different periods; allowance for this latter characteristic had been made in the property questionnaires issued to proprietors (cf. "Property Questionnaire" translation in the annex to Part I).

A comprehensive picture of building phases in 1864-1914 cannot be supplied by the 1919 census. The failure to produce an adequate chronology of Warsaw houses alludes to the complications encountered even before the city's destruction in investigating the so-called capitalist urban landscape. Nearly a quarter of the city's developed properties were not sufficiently documented; a problem which was almost as great in the Mid-Town as in the suburbs. Although the census commission was hard pressed to publish its findings in any form, such deficiencies are generally associated with oriental or Mediterranean cities in which houses may originate from more than one period in time and later extensions are frequently not documented. It would appear that records kept in the Town Hall were of little practical value in alleviating complications encountered





during the census; for example, in establishing the age structure of Warsaw's housing stock.

Building records from the study period are far from complete, but where available offer greater detail than the summary data from 1919, since the number of new buildings developments is given; further endorsing the importance in this investigation of the individual building component within the property (cf. Fig. 3.4). Documents compiled by the municipal authorities during home rule recorded the number of building plans for new frontal houses and outbuildings cleared from 1816 to 1868; figures which are verified by records kept by the Government Commission for Internal Affairs (*Komisja Rządowa Spraw Wewnętrznych*), remnants of which are today housed in the Main Archives of Old Records (*Archiwum Główne Akt Dawnych*).<sup>267</sup>

Following the Russian takeover of the Town Hall, precise records of building activity became sporadic. Data for the years 1869-1914 may be supplemented, at least in part, by the results of the One-Day Census of 1882 and the Russian state-sponsored "Survey of Sanitary Conditions in Warsaw" (*Itogi sanitarnoy pisriepisi goroda Varshavy*) of 1891. In an article published in the periodical *Niwa* and entitled "Usury in the Building Trade" (*Lichwa w budownictwie*) W. Koleżak quoted from lost sources the number of new buildings put up in the years 1869, 1870, 1875, 1879 and 1880, corresponding with a boom period in private housing construction in some Austro-Hungarian and most larger German cities led by Berlin in the 1870s, known as the *Gründerjahrs*, best translated as the "speculative years" (refer to footnote no. 30 in "Notes").<sup>269</sup> Comparing the property statistics from 1868 (W. Załęski) and 1882 (One-Day Census); in particular the mean number of 3.3.

rooms per new flat calculated by dividing the number of rooms (71,800) by new flats (21,610) estimated to have been created during the intervening 14-15 years, J. Cegielski drew the following conclusion:

"The figures prove a fundamental change in" (house) "construction occurred during this period in connection with the raising of mainly apartment buildings of a high standard in terms of their size, suiting - taken as a whole - primarily the needs of a rapidly-expanding bourgeois class and the landed aristocracy moving at this time to the city."<sup>270</sup>

No specific documentation of housebuilding throughout the 1880s apparently exists for Warsaw, although it is clear from newspaper articles and economic studies from the time, including the one by Koleżak, that a major slump in the building industry, succeeding the 1870s boom, was experienced, reflected among other things in the closure of many local brickworks. S. Herbst refers to a brief revival in the years 1887-'89, not specifying the numbers of new projects realised, but the general pattern would appear to have been one of prolonged depression into the 1890s.

The 1891 survey was concerned with health standards in the city and facilities provided in properties; e.g. the kind of water supply, sewage and waste disposal, heating, etc. No reference was made to building components; Russian usage of the word "dom" (дом) denoted developed properties as opposed to "house"/"building" in previous, Polish-language records and surveys.<sup>271</sup> 4187 built-up properties were registered in leftbank Warsaw during the survey, suggesting a mere 232 new properties had been developed from scratch since 1882 (compared to more than 1000 between 1868 and 1882). Allowance should also be made

of administrative incorporation in Wola, Powązki and the East Bank in 1887/'88; in Praga the leap from 213 properties in 1882 to 676 in 1891 would have been almost entirely attributable to the absorbing of the Konopacczyzna (also known as "Nowa Praga"), Szmulowizna ("Szmulki") and Kamionek districts.

Precise evidence of building activity cannot be based on gauging the rise in newly-developed properties in the new tenement quarters (such as the later Grzybów, Towarowa, Koszyki and Ujazdów commissariats), since previously built-up plots in older districts were also subjected to redevelopment (e.g. Nalewki, Leszno, Mirów and parts of the city centre, including Nowy Świat). The building process was complicated, involving not only the laying out of new plots on open land as a preliminary step to property development, but also the raising of new buildings behind older frontal houses or extending older buildings themselves; between 1855 and 1868, for instance, 131 houses or outbuildings were extended, 116 of which had served formerly non-residential functions.<sup>272</sup> A more reliable indication of building patterns during the 1880s might be found in apartment statistics. The One-Day Census of 1882 recorded 69,610 inhabited flats subdivided into about 181,000 rooms, compared to 89,817 flats and 203,692 rooms in 1891.<sup>273</sup> From these figures it can be deduced that 20,207 "new" flats were created and 22,962 rooms, which suggests the mean size of apartments from between 1882 and 1891 was just 1.14 rooms; an extreme contrast with average flat dimensions calculated for the years 1868-1882 of 3.3. rooms per "new" apartment. The "building" of more than 20,000 mainly single-room flats in the 1880s when very little new housing was put up has been interpreted as indicating the

partitioning of pre-existing flats or even subpartitioning of individual rooms; particularly in tenements which had been raised during the 1860s and 1870s (refer to "Apartment subdivisions in tenement properties" in Chapter 10). Subletting apparently became more widespread from the late-19th. century; in 1891 it was noted in 19.3% of all Warsaw flats, including almost 1/5 of all single-room apartments.<sup>274</sup>

A subsequent boom in the building industry during the 1890s is corroborated by information pertaining to new housing projects approved by the "Building Inspectorate", a tsarist administrative body connected to the regional governing authorities of Warsaw *gubernia* (cf. "The demographic pattern in 1913 (II): sub-urban zone" in Chapter 3). Data is available for the years 1894-'99 when 4399 buildings were constructed, culminating in the peak year of 1898 when 1055 "houses" were approved. Included in these figures were extensions or enlargements to existing buildings. A "building report" (*Строительный доклад*) by the Warsaw *gubernia* authorities for example, which is dated April 1901 and preserved in the Archives of the Capital City of Warsaw, listed 10 completed, presumably tenantable properties composed of about 35 buildings (put up in 1900) and 6 extensions or enlargements in pre-existing buildings. It approved a further 10 properties subsequently developed (in 1901?) comprising 37 buildings in the southern Mid-Town commissariats (IX/XIII and XI).

Even though this boom also ended abruptly after 1900 and a meagre 11 buildings, counting extensions, were being put up annually in 1901 and 1902, land prices continued to rise, from around 100 roubles in 1899 to between 110 and 140 roubles for a square metre of land in plots fronting

Marszałkowska Street. As in the 1880s, the price of bricks crashed and builders again found themselves out of a job. The industry was showing signs of recovery from 1903 when the Russo-Japanese War (1904) and Revolution of 1905-'7 provoked real depression and even a temporary decline in the population (from 771,400 in 1904 to 746,500 in 1906).<sup>275</sup>

No building data has been preserved from the years 1903-1918. House construction began to recover from the social traumas and economic depression of revolution only after 1909, ushering in a successive property boom to be cut short by the Great War. Precise figures for the total number of buildings in Warsaw are available for 1882 (11,054) and 1919 (22,475). If allowance is made for the Building Inspectorate's authorisations (4399), data relating to 1902 and 1903 (22 buildings), as well as buildings in Praga (available after the 1888 incorporation only for 1914/1919; i.e. 3017), some 4000 buildings put up in the Mid-Town between 1882 and 1914 must still be accounted for, the overwhelming proportion of which came from the growth years of 1909-'14. E. Strzelecki suggested up to 10,000 flats were being built - or at least subpartitioned from others - during these final years of peace.<sup>276</sup> Comparing apartment statistics for the inner left- and rightbank districts combined, a total of 76,485 "new" flats were created between 1891 and 1914 (1919) and 189,319 rooms, giving an average size for flats in 1891-1914 of 2.48 rooms (cf. "The subdividing of habitable apartments into rooms" and cartogram 4<sup>d</sup> in Chapter 4 for fluctuating flat sizes and their spatial distribution in 1919).

Building phases and the housing shortage in 1864-1914

Following a preliminary and comparatively modest phase of early tenement speculation in the later-1850s and much of the 1860s, private property construction throughout the study period was dominated by three great booms accounting for more than half of building components in properties recorded in the 1919 census (22,475); i.e. 4178 in the 1870s, 4399 in 1894-'99 and at least 3500 in 1909-'14. These booms were violently interrupted by prolonged stagnation in the building industry which, although partly brought about by general economic or even political crises of a regional, Russian or ultimately international nature, would appear to have resulted from relatively sudden arrests in demand for new property (this was almost certainly the case in the late-1870s when the property market seems to have become flooded with tenement houses providing spacious apartments of 3, 4 or more rooms which landlords could no longer rent out).

Housebuilding, given that the primary objectives of most property owners were connected with securing profits by providing rented accommodation rather than guaranteeing roofs over heads, was subject to market forces and did not relate to the number of people already living or arriving in the city (cf. Fig. 3. in Chapter 10). The housing shortage, which according to E. Szwankowski, and J. Cegielski among others, existed even prior to large-scale property speculation, can only be presumed to have worsened with rapid demographic increase (from 230,300 inhabitants to 884,500 in 1914 within the pre-1916 administrative borders). If land prices, together with the costs of materials and labour, rose during the half century, rents charged by

landlords also inevitably went up, although these varied tremendously between different quarters of the city, apart from in relation to different levels and parts of the tenement house.<sup>277</sup>

Four main building phases within the 1864-1914 period under investigation have been recognised:

1. early "barracks" house development in the 1860s featuring isolated examples of multi-apartment housing and building up of individual streets, such as the southern side of Królewska St. in CBD-A sub-study area, East-Chmielna St. in CBD-F sub-study area and Marianska St. in Grzybów tenement district;

2. the speculative years of the 1870s when comparatively uniform, 3-floor tenements composed of 3 or 4 buildings transformed the urban profile of extensive parts of inner-leftbank Warsaw (especially northern Nalewki, Leszno, parts of Okopowa, Mirów, Towarowa, Grzybów and Nowy Świat commissariats, as well as Nowogrodzka, Eurawia, Wspólna, Hoża, Wilcza and Piękna streets in the southern Mid-Town districts);

2b. prolonged stagnation in the 1880s when many flats were subpartitioned and presumably rented out to less affluent tenants (as evidence of a transforming social-class structure);

3a. a building revival in the 1890s consuming most remaining agrarian land within the former customs wall, but also most town gardens; urban spread in the outer city (Wola, the tenement enclave behind the Jerusalem Toll Gates, Ochota, Mokotów), as well as Praga and its



newly-incorporated outer districts; also a decade marked by tenement infill projects, back-building in deeper plots or the laying out of cul-de-sac access roads to new plots and an extension to the commercial area in the city centre;

3b. the years 1901-'8 when two consecutive slumps led to prolonged stagnation, although important municipal, apart from some private, investments were realised;

4. a new investive impetus preceding war with intensification of the inner city plot, "extending of older tenements, adapting of groundfloors into shops and projecting of additional upper floors at one time not practised", while a relaxing by the authorities of most building regulations permitted the creating of "courtyard-wells" and 7-, 8- or even 9-storey tenement mini-skyscrapers in the Mid-Town; all such developments were partially, at least, offset by a suburban explosion beyond the municipal boundaries, especially to the south and west (Mokotów-Ochota-outer Wola).<sup>278</sup>

Fig. 3.5 illustrates a translation of the property inventory charts employed by investigators during the 1919 census. A tabular formula of this kind, recording the external characteristics of Warsaw properties and their internal layout in that year, might prove to be of some practical value in the documentation of late-19th. or early-20th. century tenements in the contemporary urban landscape (cf. case studies in Chapter 11).

Only by breaking down the tenement into its constituent building components was it possible to ensure a reliable, concise and easily-compared record of Mid-Town and inner-urban developed real estate:

3357  
 357

"The multiplicity of constructional materials, heights, age and other factors has made it necessary to distinguish between buildings and properties." (279)

A	B	C	D	E	F				
					Number of separate apartm ts	in attics	in basements	on ground- & upper floors	total number per building
Building defined according to its main functions; eg residential/house, factory, warehouse, stable, washhouse, etcetera	Situation of residential buildings; eg front al- or side-building, outbuilding raised parallel to street etc.	Building materials; stone, brick, concrete, timber frame or wood?	Material of roof?	Ground-floor and no. of upper storeys					
I									
II									
III									
IV									
V									
VI									
down to:									
XII									
Total									

Figure 3.5 : The number and type of buildings composing a property in Warsaw's Mid-Town and Praga districts  
 (translated copy of supplementary data tables issued to census collectors during the property survey of 1919)

Chapter 10

TENEMENT TYPOLOGY AND DIFFUSION

A. FORMULATING A MODEL OF TENEMENT HOUSE TYPOLOGY

The developmental process of the tenement-barracks-city was subject to the whims of an economic system in which financial and productive power, as well as social influence, were limited to a small group, or groups, of society. Housing policies did not operate in the Russian Empire and were not to be formulated in Warsaw and other Central-Eastern Polish cities until after 1918; and even then with only minimal impact on the housing situation of inner city areas where conditions up to the Second World War actually deteriorated rather than improved.<sup>280</sup> A *laissez-faire* market economy where central government exerts only certain controls, or, as in the case of tsarist Russia, virtually turns a blind eye to, so-called middle-class liberalism would be expected to create a situation in which very varied residential building forms arose; partly at least in conjunction with the paradigm of socially segregated quarters. It is clear that no single model tenement house type could have evolved under such conditions of largely ungoverned and frequently primitive free enterprise. Rather, certain building configurations and constructional forms may be identified in relation to the social-class and income hierarchy, developmental phases and property location.

## Building regulations

Legislation operating in a large measure until the 1939-'45 war was introduced in the 19th. century to curb at least some of the greater excesses of property speculation. S. Herbst placed great emphasis on the influence of building regulations in shaping tenement house plan and form:

"The new tenement house coming into being at this time" (i.e. in the late-1850s and 1860s) "on Marszałkowska was subject above all to the general building regulations for towns in Congress Poland dating from 26th September 1826 and enforced by the building police." 281

Among the more important stipulations immediately affecting building plan, all courtyard buildings raised against those of neighbouring properties were required after 1826 to have exclusively lean-to roofs "in order that (...) rainwater off roofs should fall into the courtyard of the owner's house"; connecting frontal houses, on the other hand, were to have gable (i.e. pitched) roofs. A continuous dividing wall was to be raised between adjoining houses as a precaution against fire while all staircases, to basements as well as leading to upper levels of properties, were not permitted to enter directly onto public pavements or highways "for the safety and convenience of the general populace".

The authorities in the mid-19th. century responded relatively quickly to the observed intensification of building in Mid-Town plots to follow up the 1826 code with additional legislation "aiming to preserve an adequate standard of fire safety"; these required that gateways leading to courtyards should be at least 182m wide, while the length and width of courtyards themselves were not to

be less than 9.14m.<sup>282</sup> This latter, officially ordained stipulation was to prove fundamental in preventing an excessive intensification of property development within Mid-Town building plots for much of the 1864-1914 era of large-scale and intensive development. Furthermore, by defining minimal courtyard dimensions this particular regulation had a direct impact on the layout of property developed at high density in late-19th. century Warsaw, no less than in late-19th. century Berlin. In both cities frontal houses and interconnecting outbuildings enclosing a usually four-sided, inner courtyard became the dominant building form in the late-industrial age urban landscape. However, in Berlin this form evolved somewhat earlier and, according to the *Bauordnung* of 1842, courtyards of just 5.3m x 5.3m were tolerated by the authorities (until new legislation was introduced in 1896).<sup>283</sup> In Warsaw the regulations of 1858 could, of course, do little to alter courtyard dimensions in properties raised before that year; e.g. in the Old Town and neighbouring quarters, but their influence on the perceived standardisation of private building construction throughout the second half of the 19th. century was apparently great.

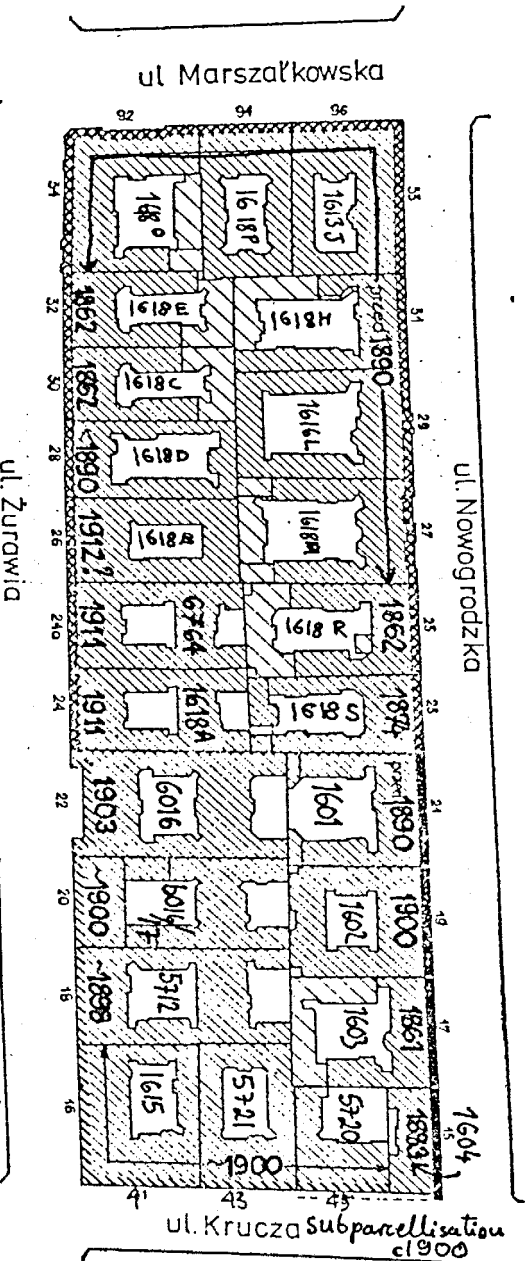
A later example of central government responding to the pace of private property development may be recognised in the application of regulations previously introduced in St. Petersburg; e.g. that courtyard dimensions must be no smaller than 13.8m x 13.8m where frontal or outbuildings exceeded 4 floors in height. In the Russian Empire private buildings raised along the street line were not supposed to be any higher than 11 *sonzhnis*; i.e. 23.5m, compared to 20m in Paris, 22m in Berlin (in suburban tenement belt districts anywhere between 15m, as in Friedenau, and 20m,

as in Charlottenburg), 80' (i.e. 24.5m) in London and 25m in Vienna.<sup>284</sup>

A wealth of contradictory information is contained in the surveys of Warsaw architects referring to official limitations imposed both on courtyard sizes and building heights, as well as in the dimensions of tenement properties raised during the 1864-1914 era. It is obvious that both legislation formulated during Polish home rule pre-dating the 1863-'64 insurrection and tsarist building controls, theoretically operating in Warsaw from the late-1860s, were applied in property construction during the study period. Property speculators were able to take advantage of a potentially confusing situation, as well as central government's indifference, municipal weakness, not to mention the infamous vulnerability of tsarist officials to bribery, to bend or quite blatantly break the rules in ways that would not have been tolerated in Paris, Vienna, Berlin or, for that matter, in St. Petersburg.

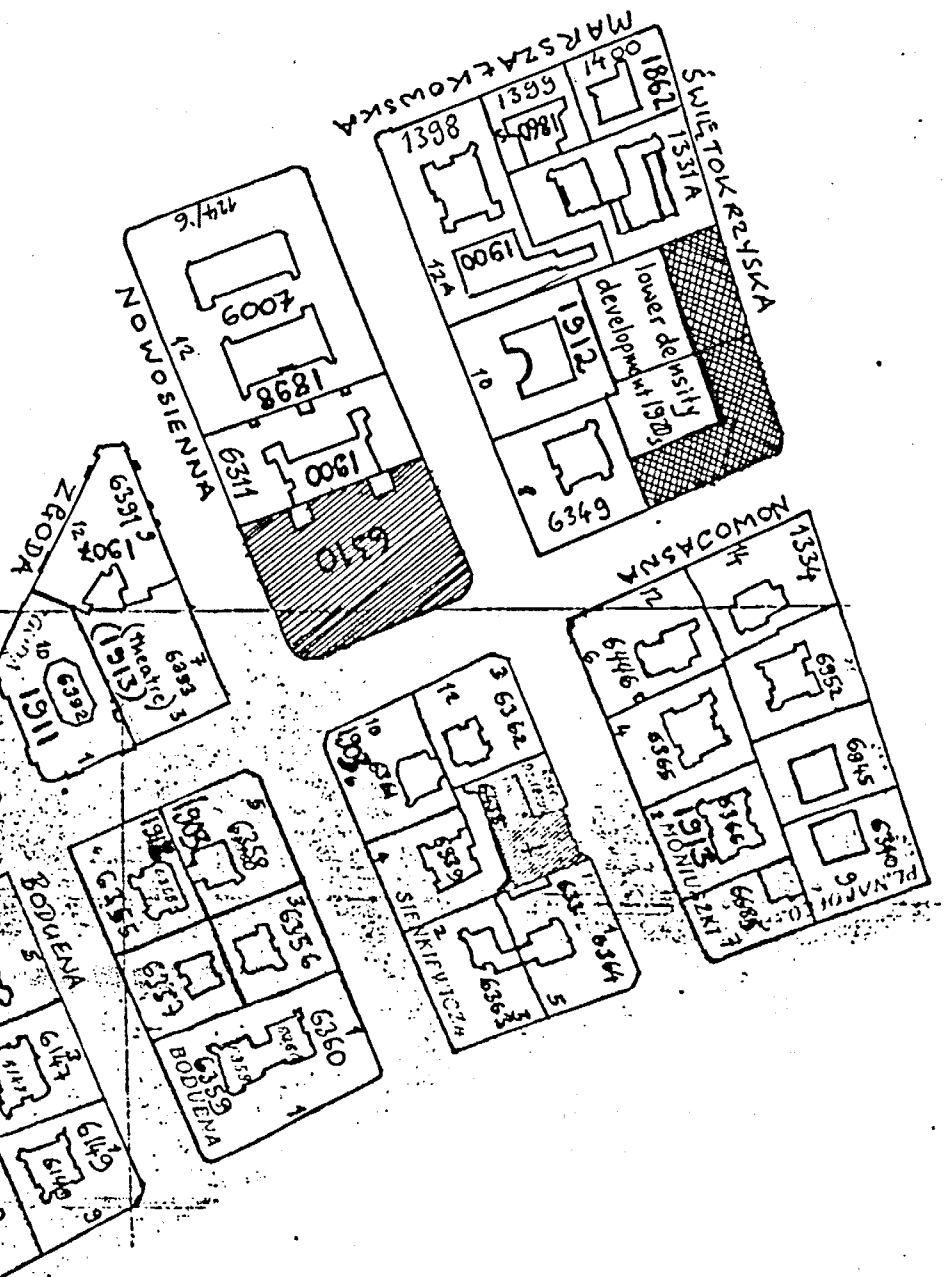
A marked contrast exists in the courtyard sizes of many Mid-Town tenements raised in the early-20th. century, compared with those originating from the late-1860s, 1870s and 1890s. A 5-floor corner house, for example, belonging to the Gebethner and Wolff bookstore proprietors (Nowosienna 9/6391, non-extant) was constructed in 1907-'8 around a courtyard measuring barely 8.5m x 8m. A more flagrant violation of the building regulations exists to this day in an 8-floor sky-scraper tenement on Unia Lubelska Square (Marszałkowska 1/1762A) with what is probably the most extreme illustration in Warsaw of a so-called well-courtyard (*studnia-podwórko*), measuring just 5m by 4m. It is unlikely that St. Petersburg, even under the pressure of revolution, would have revoked all

Figure 3.6 : Decreasing courtyard dimensions 1860s-1914.



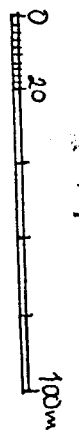
STREET BLOCK 324 (gradual development)

Construction dates according to J. Roguska



STREET BLOCKS 228-234 IN THE  
 COMMERCIAL QUARTER LAID OUT IN  
 1898 & DEVELOPED UP TO 1914/15  
 (also c.1925 at reduced density)

Date of construction where established



1:2000

regulations in force prior to 1905, although there probably were plans to work out a new, more effective building policy; plans which were to come to nothing before the ensuing revolution(s). A more realistic explanation for the flagrant failure of so many private property developers to observe the building code after 1907, Polish or Russian, probably lies in the "more liberal" post-revolutionary years of 1907-1915 when the authorities were either loath to get involved in or completely incapable of controlling private speculation in Warsaw; and presumably in other cities of the Empire as well (above all in Moscow; also in Kiev, Odessa, Kharkov, Riga, but not St. Petersburg where the authorities were anxious to ensure that no individual raised anything that would exceed the cornice line of the Winter Palace). The boom years of 1907-1914/'15 are characterised by increasingly chaotic building, at least in the Mid-Town when the authorities' token control over private construction was lost (cf. Fig. 3.6 where courtyard dimensions of tenements in a street block developing gradually during the study period are compared with those of properties raised after 1900 on the old Christ Child's Hospital site).

#### Building heights

In Chapter 9 the changing ground-plan of developed real-estate in the Mid-Town and to a lesser extent in peripheral districts has been analysed with reference to constituent building components of properties. The building also serves as the most practical statistical unit to determine fluctuating heights within the city, its



municipal districts, smaller territorial areas as well as within the property itself. A general breakdown of building heights in the Mid-Town and Praga reflects the broad 3 dimensional changes to the urban profile during the study period.

Buildings/houses	1868	1882	1891	1919
Groundfloor	11968*	10483	x	6018
1-floor	2003	3721	x	2776
2-floor	1714	2849	x	2702
3-floor	512	1905	x	4939
4-floor	33	180	x	4155
5-floor	-	16	x	901
6-floor	-	-	x	181
7-floor	-	-	-	39
8-floor or higher	-	-	-	5

Table 11a: Categorisation of building components in Warsaw according to the number of storeys 1868-1914(1919)  
 \* including 8293 almost entirely groundfloor and wooden service buildings.

The municipal data from 1868 reflect the city profile at the outset of large-scale urban development and mass tenement house construction. Warsaw in the mid-1800s was still built up predominantly with groundfloor, and furthermore wooden, buildings. Stone or brick houses, however, tended to consist of 1 or 2 floors. Of the minimal total of 3- or 4-floor houses, 149 (27%) had been put up during the preceding 12 years; those pre-dating 1856 consisted of merchants' town houses concentrated in the Old Town and its immediate vicinity (Krakowskie Przedmieście, Senatorska, Długa streets).

Continuous, but relatively small-scale construction in the 1860s, followed by the first speculative boom of the 1870s is clearly reflected in the 1882 one-day census findings. By this time the number of 3-floor, apart from

Table 11a: Buildings grouped according to number of storeys and main function\*

"okrag" /arron- disse- ment/	total number of buildings	buildings subcategorised according to primary function and height :												"okrag"																											
		Ground floor			1-storey			2-storeys			3-storeys				4-storeys			5-storey			6-st.			7			8+			unknown											
		residential	industrial	commercial	farming	public	residential	industrial	commercial	farming	public	residential	industrial	commercial	farming	public	residential	industrial	commercial	farming	public	residential	industrial	commercial	farming	public	residential	industrial	commercial	farming	public										
I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
II	1143	84	8	33	65	5	159	9	5	1	10	221	5	2	-	16	239	1	-	1	187	2	-	-	33	-	-	-	-	-	-	-	-	-	-	15	4	2	-	7	
III	2142	247	77	60	232	10	145	47	11	6	12	193	33	5	-	9	475	17	1	4	422	15	2	3	57	1	-	-	-	-	-	-	-	-	-	15	4	3	2	3	
IV	1063	28	17	49	16	16	47	4	6	2	5	198	4	9	-	-	338	-	5	-	256	4	-	-	39	-	-	-	-	-	-	-	-	-	16	-	3	-	-		
V	1497	122	76	64	182	4	153	40	1	7	2	107	19	7	2	3	290	9	-	-	292	3	-	1	45	-	-	-	-	-	-	-	-	-	19	16	6	2	-		
VI	1739	197	83	85	283	19	155	35	22	19	4	105	13	8	1	8	270	6	5	5	281	7	-	-	60	1	-	-	-	-	-	-	-	-	18	10	3	2	-		
VII	2056	201	74	93	170	17	203	56	10	10	10	194	28	4	1	8	374	23	3	5	437	10	2	4	58	-	1	1	1	1	1	1	1	1	3	8	4	3	4		
VIII	1653	39	26	83	68	12	52	13	20	5	9	192	7	8	1	3	571	4	3	7	397	-	-	4	94	1	-	-	-	-	-	-	-	-	9	4	-	1	-		
IX	981	101	23	59	131	13	91	8	6	12	7	49	4	2	-	4	143	5	1	1	217	1	1	1	57	-	-	-	-	-	-	-	-	-	6	1	-	2	4		
X	1467	97	25	45	107	7	123	10	5	6	9	235	9	3	-	12	288	2	1	19	275	7	3	4	80	1	-	-	-	-	-	-	-	-	20	6	1	-	2		
XI	1678	168	27	85	140	18	62	19	11	8	24	61	12	2	1	9	336	6	3	12	429	2	-	5	116	2	2	-	-	-	-	-	-	12	3	2	-	9			
XII	1038	23	8	32	45	2	141	15	14	10	26	208	10	7	2	23	235	3	2	13	102	2	4	3	46	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
XIII	1701	101	42	54	105	11	116	17	8	10	19	134	6	6	2	9	529	1	-	10	386	-	-	-	88	-	-	-	-	-	-	-	-	-	-	4	3	3	-	6	
I-XIII	19358	1480	502	780	1620	145	1580	288	127	99	153	2117	156	68	10	128	4365	81	29	85	3852	55	15	29	306	7	6	5	169	4	6	37	-	4	1	160	65	32	17	58	INNER
PRAGA XIV-XV	3017	590	145	129	600	27	457	37	6	15	14	199	17	2	3	2	364	9	2	4	199	4	1	-	71	1	3	2	2	-	-	-	-	-	26	8	13	6	7	PRAGA	
XVI-XXVII	10057	4180	305	248	292	65	1029	61	14	51	13	266	11	4	2	7	111	6	1	5	72	1	1	2	12	-	-	-	-	-	-	-	-	66	29	2	25	11	OUTER		

\* summary data presented in "tablice" XIV-XVIII in "Rezultaty" vol. I

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some 4- and even 5-floor buildings (overwhelmingly tenement frontal houses and their outbuildings) had almost quadrupled; 2,101 out of a total of 4178 "new" buildings estimated to have been put up between 1868 and 1882 (refer to Fig. 3.4 in Chapter 9). 2-floor houses were still being raised in the 1870s *Gründerjahre* (1,135 new buildings).

No data relating to the numbers of storeys in new building components raised during the generally depressed 1880s, the 1890s boom years or the early-20th. century is available. The 1891 survey of sanitary conditions in Warsaw properties made no reference to buildings. The results of the 1919 census, nevertheless, offer much insight into the general trends of the preceding 37 years, which may be supplemented by housebuilding statistics for that period already considered in Chapter 9 (summarised in Fig. 3.4). Ground- and 1-floor constructions thus declined by almost 40% upto 1914/'19 while 3- and 4-floor buildings had risen since the early-1880s more than threefold. The number of 2-floor buildings remained virtually unaltered, suggesting new constructions after 1882 comprised at least 3, 4 or yet more upper storeys; also that some pre-existing 2-floor houses were heightenened or demolished up to the First World War.

The multi-storey buildings put up during the period under investigation are assumed to have consisted almost entirely of tenement frontal houses and their side- or backbuildings. The 1919 property survey recorded 8217 3- or 4-floor buildings in the Mid-Town which had been designed to fulfill domestic purposes; i.e. some 42.5% of the entire building stock (cf. Table 11b). These and yet higher constructions (5.4% of all Mid-Town buildings) tended to be exclusively residential. Property defined as

commercial or industrial in a majority of cases would have incorporated domestic apartments in upper storeys; e.g. the Herse Department Store or "Rosja" Insurance Company building on Marszałkowska Street (cf. Fig. 3.7). The breaking down of building height statistics into municipal districts gives some idea of spatial contrasts within the pre-1916 City of Warsaw. Groundfloor and singlefloor constructions were still well represented in the western *arrondissements* (III, V, VI and VII) incorporating the inner-peripheral district of Wola (*Wola pod cyrkulem*). In Praga (XIV, XV) virtually 50% of all buildings (1491) still consisted of groundfloor constructions; a proportion not far removed from that for leftbank Warsaw in 1882.

A general evaluation of the building up process in different parts of the inner city during the study period is obtainable from comparing building statistics recorded by the 1882 and 1919 surveys (note: records compiled by the city council until the suppression of home rule by St. Petersburg in the 1860s refer only to the city as a whole). The comparison of data from 1882 and 1919 is complicated by alterations to the boundaries of municipal districts and the incorporating of certain peripheral districts or territorial enclaves in 1887 and 1908 (cf. plate Xa). In order to ensure that regional comparisons of building statistics in municipal Warsaw are effective, the 15 Mid-Town and Praga *arrondissements*, or *okręgi*, of 1919 have been grouped to coincide almost exactly with the 12 *cyrkule* operating at the time of the 1882 one-day census (overleaf)

municipal districts in:  
1882 (cyrkule)    1919 (okręgi)

urban region and designated  
sub-study area

I, II, III, XI  
and X  
IV  
V, VI  
VII  
VIII  
IX  
XII

I, II, XII  
and X  
IV  
III, V  
VII  
VIII  
IX, XIII  
XIV, XV

CITY CENTRE CBD-B, C, D, E, T-1 and (new) CBD	CBD-A + F
NALEWKI	T-3
LESZNO, OKOPOWA	T-2, T-4
MIRÓW	T-5/6
WESTERN/SW	T-7, T-8, T-9
SOUTH-EASTERN	T-10
PRAGA	PRAGA

Illustrative figure for tables 11c and 11d: Urban regions complying with municipal districts of 1882 and 1919.

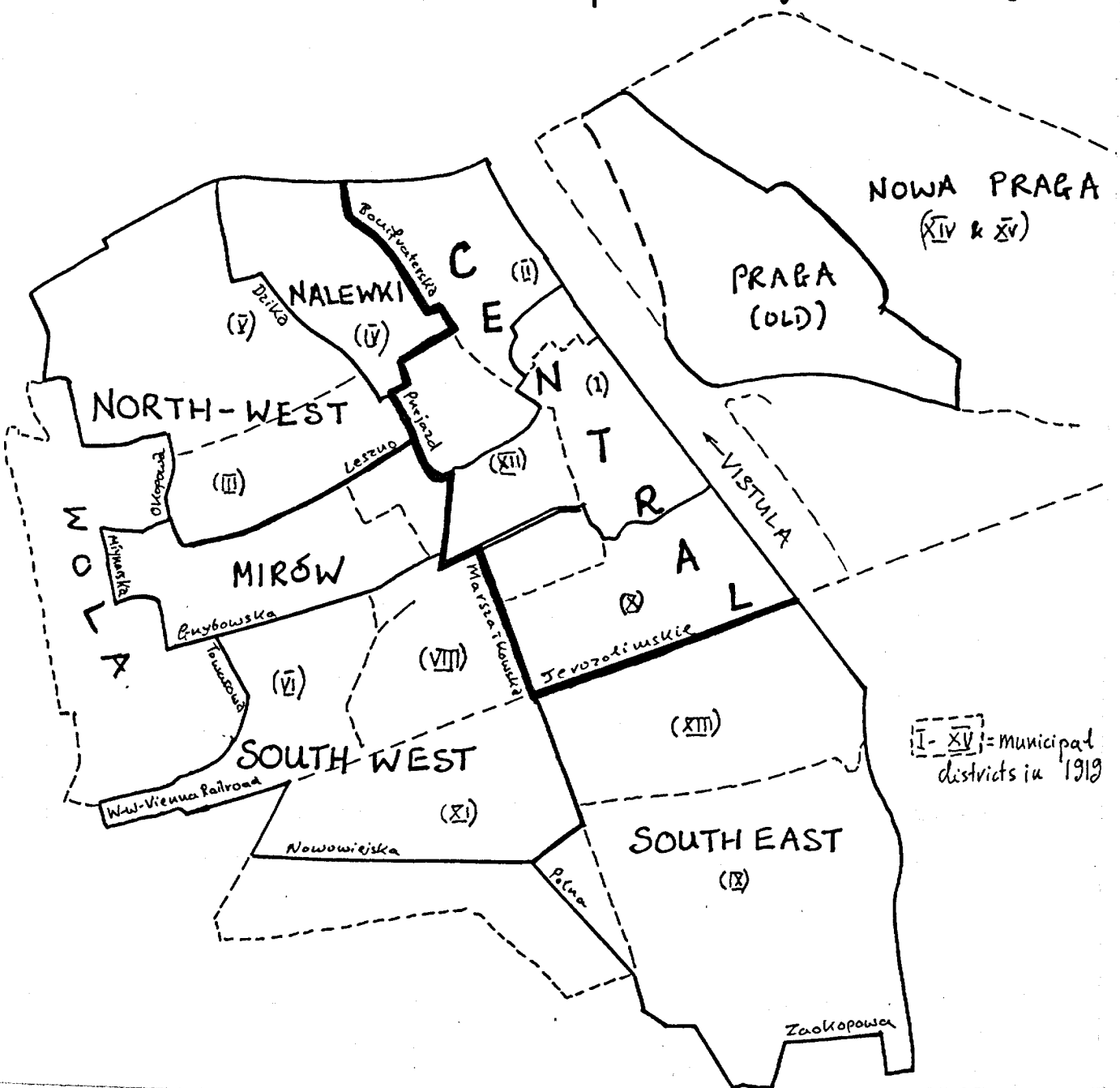
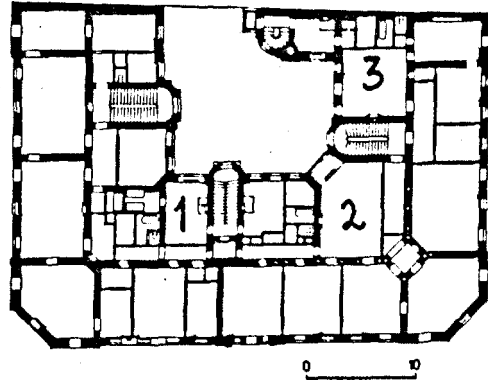


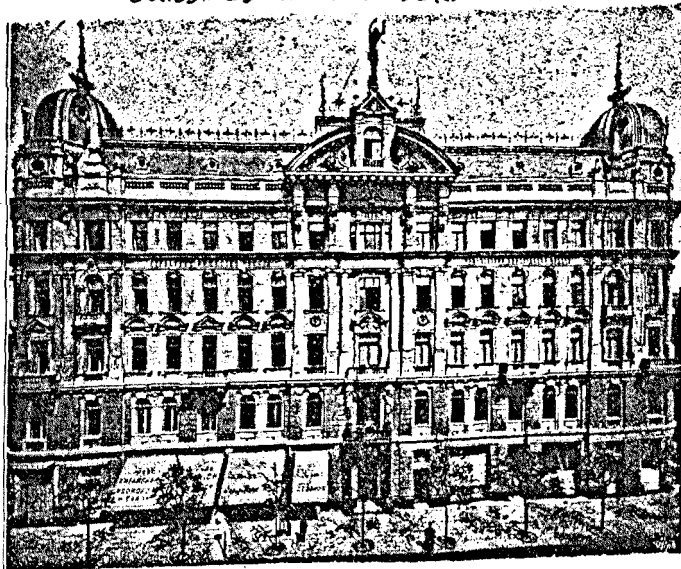
Figure 3.7 Commercial tenements on north-Marszałkowska St.



HIGH SOCIAL STATUS / INCOME BRACKET  
APARTMENTS ABOVE THE HERSE  
DEPARTMENT STORE, MARSZAŁKOWSKA 150/1404  
(arch. J. Huss 1896-7)

THE FEMALE FIGURE SYMBOLISES  
"ELECTRICITY" TO COMMUNICATE THE  
BUILDING'S ULTRA-MODERNITY

A FRENCH MANSARD ROOF  
AS A SYMBOL OF ELEGANCE  
(ESP. OUTSIDE OF FRANCE)



CUPOLAS UNDERLINE  
THE BUILDING'S REPRESENTATIVE CHARACTER

ARTICULATION IS MOST  
STRONGLY ACCENTED ON  
THE MORE IMPORTANT  
PARTS OF THE BUILDING

FACADE DESIGNED BY  
MARCONI (OF ITALIAN  
BACKGROUND) IN THE  
"MODERN RENAISSANCE"  
STYLE IN MODE WITH  
CONTEMPORANEOUS  
ARISTOCRACY

LOWER, BUSINESS  
PREMISES OF EDIFICE  
ARE COVERED IN MARBLE  
SLABS TO EMPHASISE  
THE SOCIAL STANDING  
OF CLIENTS

MARSZAŁKOWSKA 124/6 ~ 6007  
(THE "ROSJA" INSURANCE COMPANY)  
W. Marconi 1898-'9

The combining of historic nucleus (CBD-B, C, D, E), the New Town CBD-discard quarter (T-2) and the commercial centre (CBD-A, F) into a single urban region has been necessitated by the lack of any dividing line which coincides with the borders defining *arrondissements* I, II XII and X in 1919. Up to the 1880s almost a third of Warsaw's building stock had been concentrated in this urban core. Nalewki (*cyrkuł* IV/sub-study area T-3), representing already in 1882 an established residential as well as retail-commercial centre of the Jewish North-Western District, and Mirów (VII/T-5-6) as the oldest built-up area of the manufacturing-residential Western District comprise relatively small regions within the Mid-Town. Considerably more expansive regions in the tenement belt consist of Leszno (III) with Okopowa (V), the western districts of Grzybów (VIII) and Towarowa (VI), combined with south-western Mid-Town (from 1887 the 11th. commissariat of Koszyki), finally the 9th. *cyrkuł* of Ujazdów (out of the more central part of which the 13th., Aleksandryjska commissariat was created in 1907).

An actual decline in the overall number of buildings in central Warsaw during the study period is indicative of the demolishing of wooden or low stone-brick service buildings (coach houses, storage buildings, stables etc.) and their replacement with tenement outbuildings (cf. "The evolution of tenement house groundplan" in Chapter 9). The proportion of groundfloor buildings fell substantially; 1- and 2-floor buildings to a lesser degree. 3- or 4-floor constructions were still mainly concentrated in the city nucleus and these were augmented up to 1914/'19, but not nearly to such an extent as in the tenement belt quarters of the north-western, western and southern Mid-Town. It is

Table 11c: Building heights according to the number of storeys recorded in municipal districts in 1882 and 1919

Urban region	N u m b e r o f :							Total number of houses	U n k n o w n
	ground- f b	1- l u	2- o i	3- d l	4- o d	5- r i	6- 7- etc. n g s		
<b>HISTORIC CORE:</b>									
1882	2230	1068	1265	779	139	15	-	5499	
1919	799	718	978	1096	769	201	79	4848	-109
<b>NALEWKI</b>									
1882	474	357	106	77	-	-	-	1014	
1919	126	64	211	343	260	39	-	1062	-19
<b>LESZNO/OKOPOWA</b>									
1882	2283	651	371	165	5	1	-	3476	
1919	1074	424	378	796	738	103	8	3697	-70
<b>MIRÓW</b>									
1882	1356	435	292	118	2	-	-	2226	
1919	555	289	235	405	453	60	12	2056	-22
<b>GRZYBÓW/SOUTH-WEST</b>									
1882	2030	502	459	420	11	-	-	3422	
1919	1333	458	431	1230	1125	276	86	5070	-73
<b>SOUTH-EAST</b>									
1882	1218	551	292	337	23	-	-	2421	
1919	640	294	216	690	606	145	37	2682	-29
<b>WARSAW MID-TOWN</b>									
1882	9591	3564	2785	1896	180	16	-	17958	
1919	4527	2247	2479	4560	3951	824	222	19358	-332
<b>PRAGA</b>									
1882	892	157	64	9	-	-	-	1222	
1919	1491	529	223	379	204	77	3	3017	-59



worth noting that 3-floor property development was already well-advanced by 1882 in the 8th. commissariat (i.e. north of Jerusalem Avenue) and even in Ujazdów district 9 no further south than east-Wilcza and Koszykowa streets); to a markedly lesser degree in Mirów and the North-Western District, including the Nalewki where 2-floor housing was still far more important. Tenement development had already made significant advances during the 1870s in the west (Śliska, Sienna, Złota, west-Chmielna streets) and in the south-east (east-Nowogrodzka, Żurawia, Wspólna, Hoża, Wilcza and Piękna streets), as well as in central quarters (Mazowiecka, Count Kotzebue, Berga, Włodzimierska, Jasna, east-Chmielna, Widok and especially Marszałkowska streets; cf. photographic documentation placed at the end of this chapter).

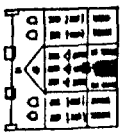
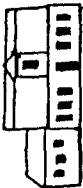
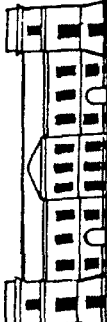




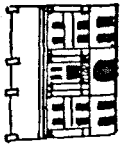
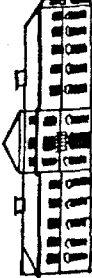
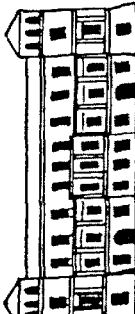
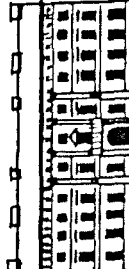
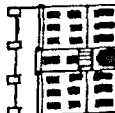

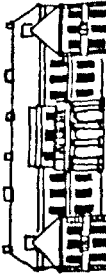
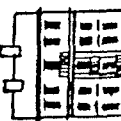



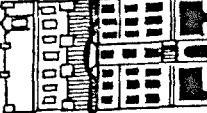

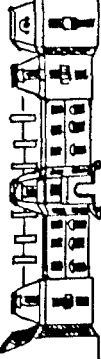
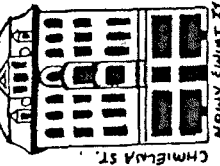
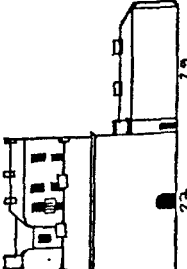
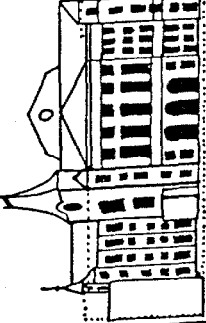
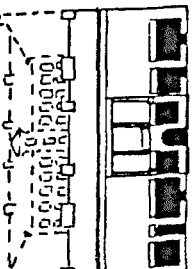
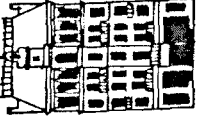
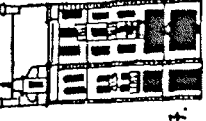
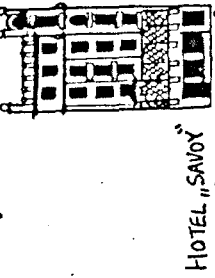
The spatial diffusion of 3-floor and (especially in the 1890s) 4-floor tenements was marked in all parts of the Mid-Town; at least 1648 new buildings with 3 or more upper storeys were put up after 1882 in the western and south-western districts (*arrondissements* VI, VIII and XI) alone. A lack of open land in the centre would have resulted in tenement infill properties or the vertical extension of older housing, including more than 200 "new" 5- or 6-floor and even higher constructions. Over 1000 Mid-Town buildings consisted of 5 or even more upper levels, nearly half of which were located in Grzybów, Koszyki, Aleksandryjska and Ujazdów *arrondissements*; a further 280 in the commercial and central administrative districts.

Tenement high-rise was chiefly the product of early 20th. century development in response to rising land values and would be presumed to have been further encouraged by

the relaxation of building regulations after 1905. The decline in 2-floor buildings in leftbank Warsaw was quite marked, compared to a more than threefold increase on the East Bank. In the *Nalewki cyrkuł*, although 3- and 4-floor development had largely replaced ground- or singlefloor construction, the proportion of 2-floor buildings was still high (c. 20%), well exceeding the Mid-Town average (12%). There was an evident absence of higher level development in this Jewish commercial quarter (cf. "The specific qualities of the *Nalewki tenement*" in Chapter 12) Apart from numerous cases of vertical extension (especially in *Nowe Miasto*), some 18th. or early-19th. century town houses in the city centre would have been demolished to be replaced by new commercial tenements; e.g. on *Krakowskie Przedmieście*, *Senatorska*, *Długa* and especially on *Nowy Świat* streets (cf. the building up process of selected properties on *Nowy Świat* illustrated in Fig. 3.8).

Properties with 5 or 6 upper storeys in the younger tenement districts of *Koszyki* and *Ujazdów* were almost exclusively residential; in the centre lower levels were designed for or taken over by commercial enterprises. Although such high-rise was proportionally small (just over 5% of all Mid-Town buildings), its impact on the urban profile was dramatic. The frontage of *Nowa Wielka* (now *Lwowska*) Street (c. 1909-1915, supplemented by some interwar construction), together with the 6- and even 8-floor tenements (1910-'14) adorning *Unia Lubelska Square* (formerly *Mokotów Circus*) are illustrative of the Mid-Town's vertical development in the early-20th. century.<sup>285</sup> In the centre and other districts, which had been evolving more gradually than southern *Koszyki* and *Ujazdów arrondissements*, tenement high-rise emphasised the

Figure 3.8: Intensified development in Nowy Świat building plots late-18th century to early-20th century (Land-Registry nos. of non-extant buildings; street nos. of buildings standing until 1939/44)

	MODEL FORMS	SEMI-REPLACEMENT	ENLARGEMENT I	ENLARGEMENT II	ADAPTATION	REPLACEMENT	EXCEPTIONAL
c.1770-1815	 STRONSKI TOWN HOUSE c.1780, NO. 1237 (NOWY ŚWIAT 3)	 S. MANUŚCIEWICZ'S MANOR HOUSE 1780S	 IZAAK OLIER'S RESIDENCE c.1775, 1265	 TYPICAL "SMALL TOWN" OR "SUBURBAN" STREET-FACING COTTAGES (NO. 68/1317)	 "SMALL TOWN" COTTAGE PHASE	 EARLY TOWN HOUSE DEVELOPMENT PRE-1990, 1255	 ORIGINAL PALACE ON SITE OF A. ZAMOYSKI'S RESIDENCE NO. 1245
1815-1850s	 STANDARD TOWN HOUSE FROM CONGRESS KINGDOM (1822) - NO. 40/1502	 I. GATEWSKI TOWN HOUSE 1818-21, 1260	 WŁADYSŁAW PASTORZYŃSKI PALACE (EXTENDED + ENLARGED 1840S) 1265A	 FELIKS BENTKOWSKI'S TOWN HOUSE c. 1819-22 NO. 49/1254	 Nos. 22/1292 & 24/1293 DEVELOPED IN 1820S	 LITTLE ALTERATION	 BRANICKI PALACE REBUILT 1820S + 1850S NEO-RENAISSANCE 18/12901
1860s-90s	 1820S TOWN HOUSE EXTENDED IN 1870S NO. 45/1256	 PARCELLISATION + DYLPHIT. OF NEW PLOT 1260A 1260	 CHANGES OF OWNERS & "TENEMENTISATION"	 PROPERTY CHANGED HANDS & APARTMENTS SUBDIVIDED	 No. 24/1293 HEIGHTENED BACK-TENEMENT c. 1910	 BACK-BUILDING IN 1890S	 K. ZAMOYSKI PALACE 1975-'80 (FOKSAŁ 12+4 - FRENCH RENAISSANCE)
1890s-1915	 REPLACEMENT ~ 12,59A PALCZYŃSKI TENEMENT NOWY ŚWIAT 37	 OUTHOUSE NOWY ŚWIAT 27	 PALAIS DE GLACE SKATING RINK c. 1910 IN FORMER GARDEN	 HIGH-DENSITY DEVELOPMENT ON SITE OF BARDEN (CHYROMETAL)	 No. 22/1293 EXTENDED IN 1890S + 1850S/1900	 NOWY ŚWIAT 47. HIGH-RISE COMMERCIAL TENEMENT POST-1900	 HOTEL "SAVOY" c. 1910 - ART NOUVEAU HIGH-RISE REPLACING PREVIOUS TOWN HOUSE NO. 58/1311

3375

"tooth-gap" characteristics of streets fronted by buildings which had taken shape during continuous urban development (e.g. Solna Street in Mirów quarter; cf. photographic documentation).

Statistics referring to building heights on the East Bank have been distorted by the 1887 incorporation of so-called New Praga; the Konopaccyzna quarter stretching to the north-east of Targowa High Street had already begun to expand in connection with the opening in 1862 of the St. Petersburg railway line and station terminus on Wileńska Street.

#### The tenement house apartment

The 1882 property census reveals that 43% of apartments in leftbank Warsaw had been situated on groundfloors, a further 34.5% on 1st. or 2nd. floors and barely 7% on 3rd. floors (cf. Table 11d overleaf). At the same time many citizens were living in predominantly singleroom basement and attic flats (5.5% and 11% respectively).

By 1919 the proportion of groundfloor apartments on the West Bank, although still substantial (27.5%), had fallen dramatically, while the percentage of 3rd. floor dwellings had risen to around 15% with those located on 4th. floors, accounting for 8.6% of the housing stock. Accommodation on yet higher levels, in spite of the development of multi-storey tenements in c. 1907-1914'15, represented less than 2% of Mid-Town flats. Although the number of basement dwellings was greater in 1919 the overall proportion had fallen to 3.9% by 1919, while the

Table 11d: Categorisation of apartments in municipal districts according to vertical location in 1882 and 1919

URBAN REGION	APARTMENTS LOCATED:											TOTAL NUMBER OF APARTMENTS
	(UNKNOWN)	IN BASEMENTS	ON GROUND-FLOORS	MEZZANINES	ON 1ST.FLOORS	ON 2ND.FLOORS	ON 3RD.FLOORS	ON 4TH.FLOORS	ON 5TH.FLOORS	ON 6TH, 7TH, 8TH. OR HIGHER FLOORS	IN ATTICS	
<b>HISTORIC CORE:</b>												
1882	4	966	10125	125	5723	3870	1803	435	25		2034	24106
1919	-121	1317	10488	760	7463	6417	4523	2553	600	158	2010	36683
<b>NALEWKI:</b>												
1882	59	181	2312	-	1355	1129	288	-	-	-	444	6008
1919	-58	407	3639	195	2136	2078	1568	762	77	-	1871	11151
<b>LESZNO/OKOPOWA:</b>												
1882	57	871	6453	3	2778	1177	446	7	-	-	2097	13889
1919	-35	917	7418	699	6009	5252	4636	2520	222	15	980	28789
<b>MIRÓW:</b>												
1882	-	389	3850	16	1659	815	296	4	-	-	1138	8167
1919	-36	447	4613	63	3583	<b>3131</b>	2659	1621	214	35	812	17275
<b>GRZYBÓW:</b>												
1882	103	944	6085	8	3056	1975	1097	46	-	-	1836	15150
1919	-84	1534	11276	178	7994	7171	6408	3867	594	226	1499	41237
<b>SOUTH-EAST:</b>												
1882	-	617	3783	17	1675	1038	692	90	-	-	760	8672
1919	-42	937	5270	90	3890	3402	3036	1988	332	148	614	19860
<b>WARSAW MID-TOWN including Wola</b>												
1882	219	4208	32595	169	16246	10004	4622	582	25	-	8309	75992
1891	155	5220	27991	-	20536	14433	7507	621	-	-	4621	81556
1919	356	5559	42704	1985	31075	27451	22840	13311	2285	583	6095	154994
<b>PRAGA:</b>												
1882	-	214	1852	9	614	212	36	-	-	-	548	3485
1891	15	400	4032	-	2446	548	100	-	-	-	720	8261
1919	-31	412	5191	488	4245	2745	2257	993	187	1	885	17481
<b>WOLA:</b>												
1891	12	132	1074	-	541	163	17	-	-	-	278	2217

decline in attic flats was real (3.6%).

A marked rise in 2nd., 3rd. and 4th. floor apartments in each of the inner urban regions, including Praga, reflects the scale of "tenementisation" of property in Warsaw before the Great War. In Leszno, Okopowa, Mirów, Grzybów, Towarowa, Koszyki, Aleksandryjska and Ujazdów tenement districts 1st. floor apartments also rose dramatically. Only in Koszyki/Grzybów/Towarowa was the increase in groundfloor flats on a par with that recorded on other levels; evidence of extensive property development on open land in what had been the edge of the built-up area until the late-1800s. The continued importance of groundfloor buildings concentrated in the peripheral quarters (i.e. Wola or Powiśle) of Okopowa/Leszno (29.5%), Mirów (27%), Grzybów/Towarowa/Koszyki (26.3%) and Aleksandryjska/Ujazdów (23.9%) suggests groundfloor flats in the actual tenement belt were declining in relation to 1st., 2nd., 3rd. or 4th. floor dwellings. Groundfloor apartments in city centre properties remained constant between 1882 and 1919, while 3rd. floor flats more than doubled and those situated on higher levels, not counting attics, were augmented almost sevenfold.

The proportional diminishing of groundfloor housing space in the Mid-Town is symptomatic of an evolving commercial functional structure in Nowy Świat (X), Castle (I), the North-Central (XII) and Nalewki (IV) *arrondissements*, as well as on groundfloors of many barracks houses in the tenement belt. Retail businesses were being set up ever more frequently in frontal, and especially corner, houses at street level. Proprietors unable to afford the high rents charged by property owners for such premium space might set up shops and other

businesses in basements; above all in Praga and the commissariats of the western and north-western Mid-Town. These cellar premises could not be expected to attract much custom from a "genteel" clientele and were rarely set up in the usually more exclusive tenements of central and southern Mid-Town Warsaw. Here at least the original building regulations of 1826 would appear to have been applied more rigorously, for the convenience and comfort of the city's more affluent and influential residents, many of whom would have continued to inhabit ground- or at worst 1st. floor flats.

Reference to the Sanitary Committee's findings of 1891 suggests the number of groundfloor apartments actually declined in Mid-Town Warsaw during the 1880s, while nearly 14,000 "new" 1st., 2nd. and 3rd. floor dwellings had been created since 1882 (refer to "Housebuilding fluctuations (...) " in Chapter 9). It should be born in mind that the 1891 survey was concerned only with conditions in private houses and thus did not take into account groundlevel accommodation in state- or municipal-owned properties, as well as seasonal/temporary accommodation in boarding schools, hospitals etc. (included in both the 1882 and 1919 censuses). Also, mezzanines were apparently counted with 1st. floor dwellings. The rise in upper level flats already during the 1880s evidently reflects the vertical development of Warsaw's building fabric and a gradual shift from ground- or first floor domestic life (from now on the domain of retail-commercial business and the upper classes) to ever greater heights (note: higher storeys usually denoted a slip in social status, at least until the early-20th. century when penthouse flats in the centre, served by comfortable, electrically-powered lifts, became

very fashionable among the "cream" of Warsaw society which subsequently rose to the upper levels, apart from oozing out to plush villa suburbs).

Social segregation in tenement housing

A. THE HORIZONTAL FACTOR I: RENTS

In his appraisal of average annual rent charges for a single room in Mid-Town and inner rightbank apartments, the economist S. Siegel was able to establish an overall increase from 30 roubles in 1868 to around 105 roubles in 1908; a rise of 350% spread out relatively evenly over the intervening 40 years (45 roubles in 1875, 58 in 1880, 70 in 1891, 86 in 1900). Evidence of an extreme housing shortage by the early-20th. century brought about by rapid demographic increase, the failure to integrate outlying districts in the evolving Mid-Town infrastructure and rampant property speculation is further underlined by the very sharp rise between 1908 and 1914 of an additional 80 roubles in the annual rent charged for a single room in the City of Warsaw. During the study period the price of wheatflour, potatoes and most other staple food products remained relatively stable, apart from during the crisis years of 1904-'7 and with the one major exception of bread which rose from 2% copecks in 1860 to 4% copecks by 1913. The average salaries of carpenters, joiners, decorators and other professions associated with the building industry rose comparatively insubstantially up to 1914, although a mason could expect to earn almost three times more in 1913 (350 copecks daily) than his predacessors in the



early-1860s (120 copecks). The son of an unqualified worker earning 50 or 60 copecks a day in the 1870s would have expected to bring home 90 copecks or, if fortunate, a whole rouble after 1907. On the other hand, a municipal notary in 1914 earned a meagre additional 10 roubles annually than what in the mid-1860s would have been a handsome annual income of 225 roubles; then again, by the early-20th. century the corruptibility of tsarist civil servants had become so notoriously widespread it is impossible to judge how much such people really pocketed in the course of 12 months.<sup>286</sup>

Rents in most tenement apartments would appear to have been beyond the financial possibilities of a larger section of the urban proletariat. Moreover, there was an additional and far greater barrier that most of the working class would not have been capable of overcoming: that of social convention. The detailed survey of housing as well as sanitary conditions from 1891 reveals a single square metre of space in tenement basements or attics, as well as in singleroom apartments, even in identifiably proletarian quarters of the leftbank, actually cost more to rent than in larger apartments leased by various shades of middle-class society on ground- and 1st. up to 5th. floors. A general tendency among Warsaw's lower classes, as in Paris, to move away from the centre to the outskirts (*strefa podmiejska*; i.e. "suburban belt" taking on roughly the same connotation at this time as the Parisian *banlieu*) is emphasised by the recording in 1919 of average rents charged in exclusively residential flats. Annual tenancies exceeding 300 Polish marks prevailed in the 10th. to 13th. *arrondissements* comprising central-southern Warsaw, falling dramatically to around 150PM in Praga and between as little

as 80 (Marymont) and 135PM (Ochota) in the suburbs. Rooms in one suburban *arrondissement*, however, already surpassed the average rents charged in Praga and even in the 5th. Mid-Town *okrag* of Okopowa; i.e. in Mokotów, which has been interpreted as gradually being assimilated into the tenement belt from the late-1890s, and where the average rent charged for a single room in 1919 already exceeded 170PM and, presumably, was still rising (refer in Chapter 8 to "Mokotów outer tenement district" and compare, in Chapter 12, with "Urban form and housing types in the Okopowa commissariat", lying, as it were, at the opposite end of tenement house evolution in leftbank Warsaw).<sup>286</sup>

B. THE HORIZONTAL FACTOR II: WITHIN THE TENEMENT

A strong link has been identified between deteriorating housing conditions in the city and the absence or partial evolution of tenement building form in districts lying on the edge of the tenement belt. Standards would be presumed to have worsened yet further beyond the pre-1916 municipal boundaries, with the one major exception of Mokotów (apart from relevant sections concerning inner-peripheral districts and suburban regions in Part II, see in particular the introduction to Chapter 7). Variations in the plan, room division and size of apartments in what are perceived to be fully-evolved tenement houses reflect contrasting lifestyles, social status and incomes of residents in the tenement-barracks-city itself. In effect, social segregation within Warsaw was expressed both spatially and within individual properties where they had been developed at high density to accommodate anywhere between 50 and 200 or even more people (refer to Chapter 2: "Defining house types according to numbers of apartments")

and "Medium-tenement and barracks-housing in the Mid-Town").

In plate Xb theoretical divisions of a model tenement property consisting of a frontal house and parallel backbuilding connected by 2 sidebuildings, identified by J.F. Geist and K. Kürvers from their research of building forms in Berlin (1862-1945 period), have been related to selected examples of tenements from Mid-Town Warsaw. It is highly characteristic of tenement house construction that a single model type could be adapted to accommodate anywhere between 2 and 12 apartments on each level. Where plots were sufficiently deep to permit, within the confines of official building regulations construction, of an additional series of outbuildings, these would take shape, often in stages, around a second or even third "back" courtyard (most adequately expressed in the German language as *Hinterhof*; *tylna podwórko* in Polish).

C. THE VERTICAL FACTOR

The embellishing of tenement house frontages with architectural motifs borrowed from, or inspired by styles of past ages ("historicism"), or sometimes skilful, but more often garish combinations ("eclecticism"), giving way only from the late-1800s to new-age forms (Art Nouveau/secessionism and early-modernism) should not be regarded as merely a "facadal" element in property development, although in very many projects this was indeed the case. Courtyard buildings of richer houses were also ornamented, gateways and main staircases sumptuously decorated. Moreover, the facade often reflected the social divisions operating within the tenement, at least during its initial lifespan. D. Olsen in reference to Vienna

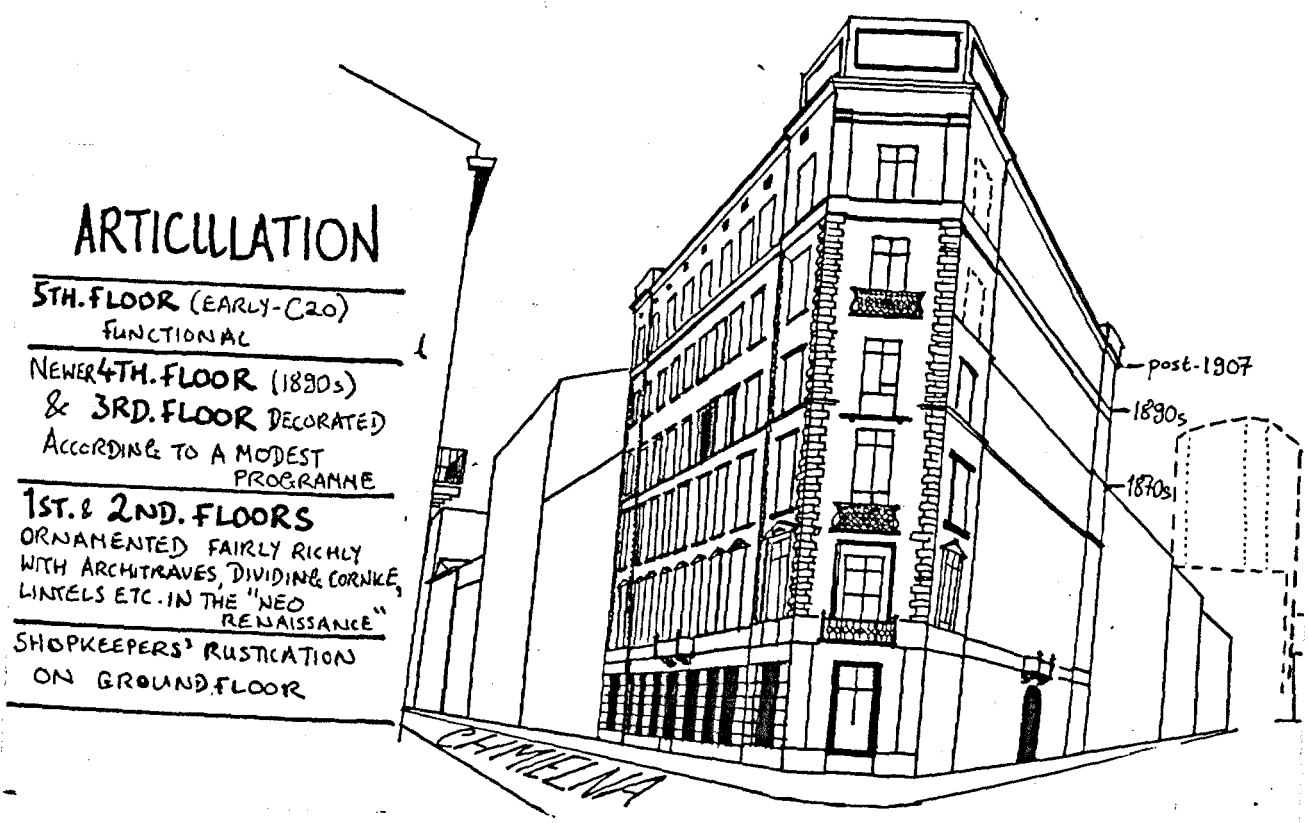
tenements stated:

"The standard facade expressed a sharply differentiated hierarchy of uses for the different stories."<sup>200</sup>

Articulation in Warsaw house frontages may not have been so "sharply" defined as in one of Europe's most socially segregated great cities, but it clearly operated. Ground-level, 1st., 2nd. and less frequently 3rd. floor ornamentation tended to be richer, or at least more pretentious, than that of higher storeys, although some principally commercial properties put up in the centre were designed according to integrated architectural programmes with the intention of glorifying the particular company or holder concerned (cf. Figs. 3.7 and 3.9 in which examples of architectural articulation in Warsaw tenements have been identified).

Bearing in mind that a significant proportion of predominantly residential groundfloor or 1st. floor buildings were concentrated in the peripheral *arrondissements* III, V, VI and VII (Wola) as well as in I, IX, X and XIII (Powiśle), the ground-level residential apartment was clearly a declining institution, even in the southern tenement belt commissariats where they continued to represent a very substantial proportion of housing. Galloping land prices from the 1890s and the knock-on effect on rents would have forced many tenants to seek accommodation on higher levels (and/or flats of reduced dimension) long before 1914. The post-war writer S. Zieliński described the non-domestic life in the 1930s on the once exclusively residential Krucza Street:

Figure 3.9: Language of the tenement elevation and façade 384



**A. BUILDING HISTORY :** The corner house Chmielna 22 (1493A)/Zgoda 1 original 3-floor elevation raised in the 1870s  
 4th. floor extension in the 1890s  
 5th. floor extension after 1907



3RD. FLOOR FLATS MORE MODEST WITH LOWER CEILINGS AND POSSIBLY SMALLER ROOMS

1ST. & 2ND. FLOORS ACCOMMODATING SPACIOUS APARTMENTS FOR WELL-TO-DO INHABITANTS

GROUND FLOOR OCCUPIED BY A BANKING HOUSE WITH SEPARATE ENTRANCES FOR BUSINESS CLIENTS & RESIDENTS

**B. FAÇADAL ARTICULATION**  
 Ct. Kotzebue 8/612B, post-1882

"The street was renowned for its millinery. It was difficult to find a shop that did not deal in women's hats. All sorts of "toques", composed fantasies, berets and "mushrooms" in the shop windows lured passersby with their Parisian fashion and Warsaw chic. The garish displays in grey tenements were only blotted out at dusk as shimmering neon lights came on. Then music could be heard from the dance halls situated at street corners and alluringly done up ladies began their nightly wanderings."<sup>289</sup>

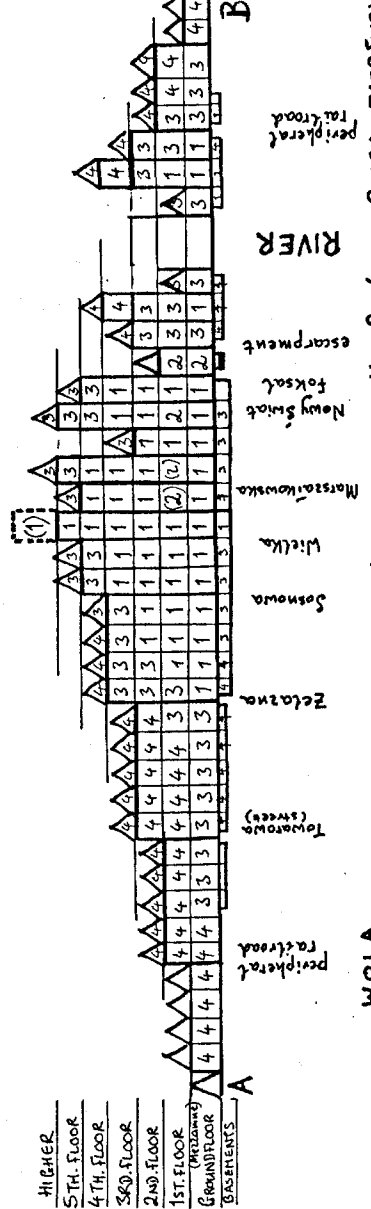
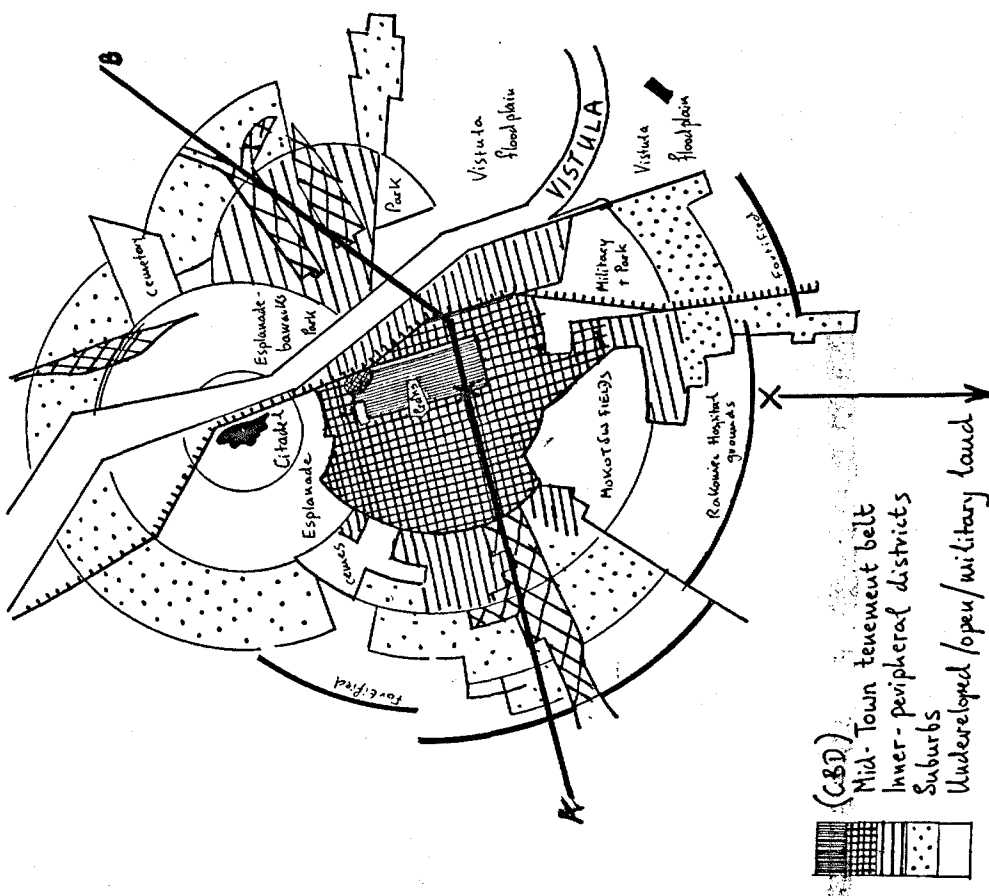
It has been seen that rents in Mid-Town apartments were subject to wide fluctuations over both time and space. The cost of tenancy leases also tended to vary within the tenement property according to horizontal factors (frontal house apartments, first courtyard outbuildings, second courtyard or back-tenements), as well as vertically.

According to the 1891 survey rooms in apartments on 1st. (83.30 roubles p.a.) and even 2nd.floors (64 roubles p.a.) tended to be more costly than on ground level. Annual rents charged for flats tended to decline proportionally in relation to floor level: from 240 on 1st. floors to 138% roubles on 4th., 5th. and 6th. floors combined. However, a single room in upper storeys (61.6 roubles) marginally exceeded that of a 3rd. floor room (57.4 roubles); evidence that flats on the highest levels of tenements were very often smaller than on the more prestigious and convenient levels. The landlord's assumed intention to maximise from leasing rooms in his property or properties readily took more for a single room on top floors than he charged per room for a 3- or 4- chamber apartment nearer the groundfloor; a paradoxical situation underlining social segregation and the dreadful shortage of housing for members of the working class who would have been in

competition with their kind to secure for themselves accommodation in the city (refer in this chapter to "Rents" in relation to social segregation; p. 379).

Attic and basement apartments might be leased out at a third of the price of those on 1st. or 2nd. floors, but a single room below or above the tenement's main residential space already in 1891 cost between 50 and 60 roubles (compared with 64 and 83 roubles on 1st. and 2nd. floors respectively). The proportionally high fees demanded even for attic and basement accommodation would have kept the lower income groups out of the inner city, or forced the least wealthy to share flats and the cost of renting them with other families.

The effects of this exploitation of less fortunately positioned social groups by the so-called propertied class(es) under the mask of prevailing social conventions in those times would have greatly influenced residential patterns both in the metropolitan area as a whole and in individual tenements. In Fig. 3.10, based on the Kohl model, social-class structure according to vertical/floor level of flats and horizontal/spatial factors has been formulated for Greater Warsaw and a model Mid-Town tenement house composed of two sets of outbuildings backing onto a smaller barracks-plan property with a single courtyard. The general tendency of tenants representing the professional classes to occupy most levels of centrally located properties and of the working classes to live above, below or, above all, outside of the Mid-Town (referred to by Kohl as *die Innenstadt*), although simulated, can be said to reliably reflect the proletariat's virtual exclusion from the tenement belt; the tenement in Warsaw simply had not diffused down the social hierarchy and it was not merely



- WOLA INNER · TOWAROWA · GRZYBÓW · C.B.D. · VILAS-POWISŁE · PRAGA · TARŁÓWEK
1. Workplaces and residences of the professional classes prevail (upper & lower-middle M-C)
  2. Remnants of Polish aristocracy / fitted members of society (lower income groups prevail)
  - 3/4 Above, below and away from the central city (lower income groups prevail); 3 = servants, lesser shopkeepers, artisans & other self-employed; 4 = factory workers (virtually absent from the tenement belt)

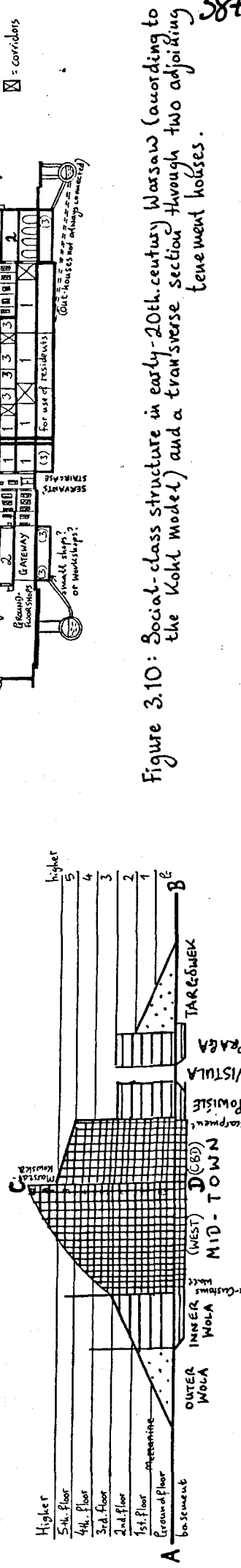
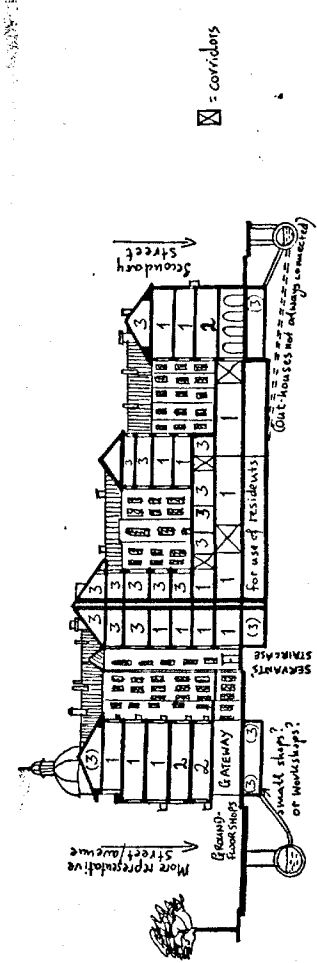


Figure 3.10: Social-class structure in early-20th-century Warsaw (according to the Kohl model) and a transverse section through two adjoining tenement houses.



communist propoganda which incited a stereotyped correlation of tenement housing with middle-class urban living right upto the Second World War.<sup>290</sup>

The sub-dividing of apartments in tenement properties

Examination of incomplete building statistics for the last 3 decades of the 19th. century reveal a major depression endured throughout much of the 1880s (cf. Fig. 3.4 in Chapter 9). Although the precise number of constructional projects from this period cannot be established, comparison of data relating to Warsaw apartments from 1882 and 1891 tell us as many as 20,200 "new" flats were created during a decade of insignificant building activity. A reasonable conclusion to draw from such statistics is that new dwellings from the 1880s were created out of the pre-existing building stock rather than from entirely new property development. Such a hypothesis is supported by:

- (a) mean calculations based on property statistics from the years 1868, 1882 and 1891 of 3.3 rooms to new apartment created in the 1870s, compared to a meagre 1.14 rooms in "new" dwellings dating from the 1870s;
- (b) the unabated rise in population during the 1880s in spite of the lull in building activity (from 357,200 permanently and temporarily registered citizens in 1880 to 490,400 by the end of 1891).

The population of municipal Warsaw was to double over the ensuing 3 decades (884,500 in 1914), while the number of flats rose from 89,817 to 164,760 (c. 183%); i.e. for every "new" apartment created between 1891 and 1914 there

were more than 5 new Mid-Town or Praga citizens. Excluding hallways and bathroom/WCs (20,585), 203,962 inhabited rooms were recorded by the Sanitation Committee of 1891. Including vacant or vacated residential space in 1919 in order to gain a more realistic pre-war figure, there were around 395,000 to 400,000 flats in the 15 municipal districts by 1913/'14 (cf. Table 6b in Chapter 4). The average size of new apartments created in the 1890s and early-20th. century thus came out at around 2.5 rooms, compared to the already stipulated figure of 1.14 rooms for the 1880s.

The above calculations suggest housing conditions during the 1880s took a dramatic turn for the worse, and there is no reason to assume this overall regression in the city showed much sign of improving throughout much of the 1890s when the population rose by over a quarter of a million.

	total flats	number rooms	of : residents	mean no. of: rooms in flats	no. of: residents to rooms
1868	c.48,000	109,200	254,600	2.23	2.33
1882	69,610	181,000	382,100	2.60	2.11
1891	89,817	203,962	465,300	2.27	2.28
1914	164,760	c.395,000	884,500	2.40	2.24

Table 11e: Fluctuating flat sizes and numbers of residents in rooms 1868-1914

1868: J. Cegielski's verification of W. Załęski's data

1882: One-Day Census

1891: Survey of sanitary conditions in the City of Warsaw

1914: based on the results of the Property and Apartments Census of 1919

Even though the above fluctuations expressed in relation to the City of Warsaw seem insignificant, the increase in average flat size and number of residents per room during the 1870s, followed by a subsequent decline in flat size and rise in population up to 1891, is nevertheless detectable and at variance with the general trends of the 46 year period under examination. Housing standards in the 1870s are seen to have undergone a tangible, if broadly defined improvement with the widescale construction of tenement housing for wealthier tenants and the landed gentry which was moving into the city in response to agrarian reform in the Russian Empire (refer to "Housebuilding fluctuations (...)") and especially the quote by J. Cegielski in Chapter 9). This improvement in housing standards lasted only as long as there was a demand for higher quality housing. A subsequent influx of urban immigrants from the later 1870s and 1880s would be presumed to have consisted primarily of rural workers forming the basis of a new urban proletariat, apart from around 150,000 Jewish immigrants upto 1910 arriving from east of the River Bug under pressure from the 1882 *ukase* limiting Jewish habitation in the Russian heartland. Average apartment sizes from c. 1891 to 1914 increased to about 2.4 rooms, although the mean number of residents remained virtually unaltered at 2.24 to a room. The percentage of Warsaw citizens living in singleroom flats (28.7%) remained disproportionately high in comparison with European cities (County of London 6.2%, Paris, excluding the *banlieu*, 16.3%, Berlin just 3.4%, Vienna 4.2%), but not in relation to other major centres of the Russian Empire (nearby Łódź as high as 56.7%; Moscow >60%). Fluctuating flat sizes and population densities would be expected to have become more

tangible in smaller territorial units or urban regions (cf. "A cross-section through the urban landscape of Mid-Town Warsaw" in Chapter 11; also "The developing urban landscape of Nalewki c. 1861-1914" in Chapter 12).

Significant changes to the social-class structure of numerous leftbank tenements raised during the early stages of large-scale urban expansion (1860s-1870s) undoubtedly took place from the early-1880s. Such changes would be reflected in the sub-dividing of multi-room apartments into smaller dwellings comprising 1, 2 or at most 3 rooms. Apartment subdivision in properties initially inhabited almost exclusively by the wealthy or social elite in many cases could prove a gradual process with certain flats being partitioned more than once to accommodate various shades of middle-class society, while some flats - particularly in frontal houses, might remain unaltered (compare Chłodna 20/770, for instance, with Chmielna 68/1544). Subdivision in individual houses or patterns of partitioned flats might indicate changing patterns of social structure in certain quarters of the tenement belt or in certain peripherally situated quarters of the tenement belt coming increasingly under the influence of barracks housing assimilation. The extent to which the tenement was beginning its diffusion down the social hierarchy from the upper echelons of a Polish-Jewish urban society (e.g. Aleje Ujazdowskie 37/1669 and its ilk) would be indicated by the presence of smaller dwellings in otherwise middle-class tenements, or, where identified, barracks housing designed specifically with lower income tenants in mind; i.e. composed of consistently 1- or 2-room flats with a so-called corridor floor-plan (compare Zurawia 26/1618E or case studies "A" and "B" with Chłodna 20/770 or

case studies "C" and especially "G" with "J").

Social segregation in the tenement-barracks-city was dependent on a variety of factors relating both to the city's spatial plan (different quarters or urban regions) or to groups of properties (street block or street profile analysis), as well as the tenement cell (vertical and horizontal location of flats; cf. Fig. 3.10). Patterns of social segregation in tenement and urban space were constantly subject to alteration and at best may be related to broadly defined sub-building phases of urban development during the study period (summarised at the end of Chapter 9).

A model of tenement typology (presented in "Conclusions") must take into account each of the above factors. A comparatively practical gauge to changing residential and functional patterns within single tenement cells may be applied through the identification <sup>of</sup> successive stages in apartment subdivision or building extensions post-dating a property's initial development (cf. tenement case studies in Chapter 11).

#### "PALATIAL TENEMENTS"

Al. Ujazdowskie 37/1662 : this "palace tenement" (*kamienica pałacowa*) was put up in the 1870s at a time when the landed gentry were moving *en masse* into the city (cf. "Housebuilding fluctuations (...) " in Chapter 9). The 1882 census results reveal this extensive property fulfilled its traditional function of providing horse-drawn coaches with access to the first (service) and second (residential) courtyards.

This "medium-sized", but nevertheless tenement

property type provides a link in the evolution of residential building form in Warsaw with the forecourt and entrecourt plan of the true, mainly 17th. or 18th. century noble palace. It would seem likely that the snobbism among Warsaw's middle class associated with living in "outbuildings" (*oficyna*) had its roots in the traditions, or idealised images, of Polish noble palace life. Dependents as well as domestics, originally at least, lived in the frontal house, which as a consequence was of secondary importance in the property's layout and was connected to the main tenants' residential building raised between the 1st. ("entrecourt"?) and 2nd. courtyards. So far as tenants deluded themselves they were living in a palace, the spacious, tree-lined and highly fashionable, but also public, boulevard of Ujazdów Avenue presumably was intended to serve as a forecourt(!). The real giveaway that this was a tenement and not a palace, and that the inhabitants belonged at best to the upper echelons of middle-class rather than the evermore elusive aristocracy, was the fact it had no garden stretching, as had generally been the trend, westwards behind the nevertheless convincing imitation of a palace corpus. Building parcel no. 1669 was just that and it backed onto other plots fronting Mokotowska Street which, lacking the representative impact of the Ujazdowskie, evolved a more modest, but on the whole *gemütlich* profile of comfortable tenements and the odd single-family town house.

Just 32 residents inhabited the palace tenement in 1882. A free-standing outhouse closing the second courtyard would also have been intended for servants (coachmen, stable hands and doorkeeper?), but may be expected to have been rented out by the 1890s or

early-20th. century as tenement holdings (window openings have been knocked out of the former screen wall dividing plot 1669 from no. 1676 (Mokotowska 14), indicating apartment subdivision occurred at some point, probably before 1914.

The palatial tenement may be interpreted as a Warsaw variant of the Viennese *Nobelmietshaus* (refer to "The subdividing of habitable apartments into rooms" in Chapter 4). The contrast in architectural plan as well as composition between such pseudo palaces and the standard tenement house is strongly defined, even though floor plan in most cases relates to that of barracks-houses, although the latter were naturally partitioned into greater numbers of smaller apartments (compare diagram 1b with 2b-6b in plate Xb).

No apparent connection exists between the palace tenement and the overall influence of Berlin's *Mietshaus* on the shaping of the standardised Warsaw tenement. The noble-aristocratic palace of pre-partitioned Poland-Lithuania played a significant role in shaping the Warsaw tenement, above all in the 1860s and 1870s when the remnants of that nobility took up residence in the city, following peasant emancipation and the breaking up of their frequently gigantic *latifundia*. The largely displaced, and arguably defunct, Polish aristocracy sought a suitable urban house model to conform with their perceived sense of importance within 19th. century "Polish" society, and in this search architects were only too eager to lend their undoubted talents (cf. "Foksal Street Profile" in Chapter 11). Aristocrat and noble alike took inspiration from Italian or French, but most certainly not Prussian, examples of domestic architecture. Other examples of

tenement palaces have been identified in the same street block (no. 338) as well as in other parts of the southern Mid-Town commissariats (cf. tenement case study "B"); also in the continually prestigious commercial quarter of Nowy Świat (e.g. Bracka 20/1592 with a freestanding palatial corpus raised originally for the Brzoźowski family, but subsequently sub-divided into smaller apartments, hidden from the street by a 3-storey residential house, and the neighbouring Bracka 18/1265C where the corpus was linked by sidebuilding wings to a 5-floor frontal house raised in the late-1890s which was more akin to the typical 4-building component tenement layout; cf. 1:250 scale plan of these properties draughted around 1886 in connection with the installing of piped water on Bracka Street).

The palatial tenement provides a link between the building forms of "true" aristocratic or plutocratic palaces still being raised along the Vistula escarpment during the study period (refer to functional zones designated "2a", "3c" and "8b" in plate VIIIa; also see "Foksal Street Profile" in Chapter 11). Consuming much space and proving very costly undertakings, palace projects in the Mid-Town were clearly out of vogue by the late-19th. century; the wealthiest members of Warsaw society preferred villa or even luxury apartment accommodation in the city, possessing a second home in the countryside (gentry manor houses long established in Polish civilisation immediately associated with the popularised concept of *dwór polski*) or the immediate environs of Warsaw (villas, small palaces, sanatoria, rest homes in the outer-suburban townships of Konstancin, Skolimów, Milanówek etc. on the West Bank; villas but mainly wooden *dachas* and more sanatoria in the largely Jewish East Bank satellite



settlements of Miedzeszyn, Kaczy Dół, Radość, Międzylesie, Falenica, Swider and Otwock).

#### FLOOR-PLAN IN STANDARD MID-TOWN TENEMENTS

Zurawia 26/1818, designed after 1905, possessed a floor plan more typical of tenement development in the generally affluent central and southern Mid-Town districts; the same may be said of Smolna 34/8418, raised after 1903 for the aristocrat and property speculator Count K. Branicki. In the latter case, however, 2 back-house apartments have undergone subsequent sub-division, possibly during the interwar years; evidence of inferior housing within the same property and on the same floor level, well segregated, nevertheless, from the larger, lighter and better-ventilated flats of the frontal house, which presumably were still being rented by wealthy middle-class residents.

Another example of early-20th. century tenement development in the Southern District is presented by Jerusalem Avenue 99, formerly 93/Land Registry no. 1582EXIX, but here the original floor-plan of 8 apartments to each upper storey has not been altered by subdivision. The architect, A. Guerney of British descent, was able to eliminate, or at least reduce, the social stigma of renting a back-courtyard apartment by creating a second, back frontage looking onto Nowogrodzka street, while the main, U-shaped courtyard was opened up to Jerusalem Avenue, thereby ensuring more light reached flats on lower levels. Guerney was evidently inspired by some of the progressive concepts in architectural design which were beginning to alter housing form before 1914.<sup>288</sup>

#### EXAMPLES OF APARTMENT SUBDIVISION IN MID-TOWN TENEMENTS

No plans exist of Chmielna 68/1544, but it is clear from the base plan that apart from the main staircase in the frontal house there were a further 5 sets of stairs in the outbuildings, from which it has been deduced the original floor-plan incorporated 2 well-to-do frontal apartments (main and servants' entrances) with anywhere between 4 and 10 back apartments, depending on the degree of division or ensuing subdivision, reached via one or two of the subsidiary staircases.

Chłodna 20/770 portrays the extent to which living space in tenement properties might be partitioned for lower income residents. The floor-plan at the time of writing is repeated on each of the 4 upper storeys. Apartments entered from two main staircases in the frontal and first out-houses were originally served by additional staircases situated in the first and second courtyard sidebuildings and originally intended for domestics' use. Small, probably single- or at most 2-room flats were located in the second outhouse reached by the second set of servants' and additional, seventh staircases (wooden as opposed to stone steps which were applied almost universally in middle-class tenements from the 1890s). The tenement on Chłodna street (former *Mirów arrondissement*) well illustrates the extremities to which landlords were prepared to go in order to maximise profits from their urban real-estate, although it should be born in mind that some "bourgeois" apartments - especially in the frontal house - may not have been broken up until after 1945 when the extreme lack of accommodation in post-holocaustal Warsaw, coupled with a harsh winter, encouraged maximum subpartitioning in most surviving inner city properties

(see tenement house case studies "E" and "H" in Chapter 11).

It may be assumed the urban proletariat found accommodation in middle-class properties (*Bürgerlichemietshäuser*) where extensive apartment subdivision has been identified, such as in Chłodna 20/770. Only individual, isolated examples of tenements designed with the specific intention of accommodating working class or other low-income citizens of low social status have been identified during research of the pre-1914 urban landscape; e.g. Żelazna 83/5863, the Wawelberg workers' colony, as well as the no longer existing Artisans' and Workers' Housing developments in Solec-Powisłe and Towarowa proletarian quarters (cf. tenement case study "G" in Chapter 11, "Beyond the Mid-Town" photographic documentation and "Workers' housing in Solec-Powisłe" section of Chapter 7).

The historical geography of large-scale tenement house construction in cities of the European subcontinent

In her interpretation of the tenement's transalpine diffusion from Italy, as well as Spain, into Northern Europe, E. Lichtenberger suggested the Italian influence made its impact on merchant house building form in Poland's larger cities, including to a lesser degree Warsaw and even Lublin (*Starsz Miasto*), in the 16th. century. Domestic house types in Vienna were recognised as the natural medium in this geographical diffusion. It was not until the 18th. century that large-scale tenements, defined for the

purposes of urban analysis in this thesis as barracks-type houses, were raised, almost exclusively for upper middle-class consumption, in a European city: Naples. From the Italian peninsula this housing type is interpreted as being adopted in rapidly expanding continental cities: primarily Paris (e.g. F. Loyer), Vienna itself (H. Bobek, E. Lichtenberger) and Berlin (J.F. Geist and K. Kürvers), to a lesser extent in Hamburg, Munich, Cologne, Breslau and other major cities of the former Holy Roman Empire, Milan, Madrid, Amsterdam, Brussels, Budapest and Warsaw, advancing down the urban hierarchy to progressively smaller provincial towns. Apart from the three principal metropolises of 19th. century Europe (Paris, Berlin and Vienna) large-scale tenements came to form the backbone of urban fabric in most leading Eastern-Central European cities: Danzig, Königsberg, Poznań, Katowice, Kraków, Lwów/Lemberg, Prague, Brno, Bratislava, Linz, Graz, Ljubljana, Zagreb, Bucharest, Łódź, Kiev, Riga, Odessa, Vilna, apart from the million cities of Budapest and Warsaw; diffusion down both the urban and social hierarchies, however, was considerably less advanced than in western continental Europe. In the Russian heartland east of the so-called Pale of (Jewish) Settlement (roughly coinciding with the Dnieper and Dvina rivers), barrack-tenement housing was limited to central districts: Kharkov and Ekaterinoslav in the Eastern Ukraine; Tsaritsyn, Rostov on the Don and Kursk as planned tsarist cities, or was dispersed over wide areas of low building developed at low density by European standards: the "big village" phenomenon of pre-revolutionary Moscow partially remaining to this day, but also Nizhni Novgorod (for some 80 years named after Maxim Gorki), Smolensk, Saratov,

Samara (Kuibyshev), Kazan, Chelyabinsk, most of the largest Siberian cities etc. The urban morphology of the Empire's capital city bore the stamp of strong Germanic influence, along with its historic place name (Vienna/Dresden/Berlin -Königsberg -Riga -St.Petersburg?).

Finally, another geographical area somewhat isolated from the main European trends was Britain, where only the Scottish case of tenement evolution in Glasgow compared in scale to developments in larger continental cities, with regionalised large-scale tenement construction in Newcastle and the London East End, as well as mainly isolated examples in Manchester, Liverpool apart from other leading manufacturing and commercial centres.

## B. SPATIAL DIFFUSION OF THE WARSAW TENEMENT

The results of an arduous process of locating building plots based on the system of real-estate numeration adopted by the Land Registry Office (*Hipotska*) and the locating of plots in relation to sub-study areas introduced to the urban analysis in Part II (cf. Fig. 2.3 in Chapter 5) are presented in Table 12.

It has been seen that in its attempt to categorise developed real estate in Warsaw according to period of construction the 1919 census failed to adequately account for some 1917 out of 5415 built-up Mid-Town properties (cf. "Housebuilding fluctuations(...)" in Chapter 9 and Table I in the annex to Part III). Although the distinction between when a building plot is laid out and the date of its subsequent development has to be born in mind, the inventory of real estate divisions in Warsaw Mid-Town predating or demarcated during the period under investigation is intended to provide a much fuller examination of property development (cf. Tables II-VIII in the annex: "An Inventory of Warsaw Properties 1784-1915").

### BUILDING PLOT DEMARCATION UPTO THE 1850s

(Annex table II)

Although the Land Registry Office was not set up until after the Congress of Vienna, systematised numeration was first introduced in the levying of a property tax within the post-1770 customs wall of leftbank Warsaw in 1784 when 3041 plots (*posesje*) were listed. A property survey conducted in 1790 (*Wymiary posesji i gruntów Miasta Warszawy z roku 1790*) listed 3230 plots in leftbank Warsaw, although many of these were little more than agrarian

Table 12 :

COMPENDIUM OF PLOT LOCATION AND DEMARCATION PRIOR TO 1915

district-sub-study area	plots in 1784	new plots demarcated in :							
		1784-1852	1852-1868	1869-1875	1876-1881	1882-1892	1893-1900	1901-1907	1908-1915
CBD-A/Bank/	46	22	52	9	1	-	2	-	-
CBD-B+E/XII-Cracow Sub./	291	79	24	10	-	5	3	5	9
CBD-C /Old Town/	287	1	5	2	-	-	-	-	-
CBD-D/Mariensztat	93	6	-	5	-	-	5	-	-
CBD-F /Nowy Świat-X/	231	41	69	37	-	1	21	25	12
<u>INNER CORE</u>	948	149	150	63	1	6	31	30	21
T-1 : Nowe Miasto	236	10	8	2	-	3	2	-	2
T-2 : Leszno	127	17	80	77	5	2	44	-	3
T-3 : Nalewki	110	45	40	32	8	-	19	1	6
T-4 : Okopowa	52	20	47	122	30	43	70	6	4
T-5/6 : Mirów	239	29	40	22	3	10	8	1	3
T-7 : Grzybów	208	42	101	82	13	2	29	1	6
T-8:Towarowa	101	15	41	56	27	17	42	4	17
T-9 : Koszyki	14	20	55	67	63	47	82	18	11
T-10 : South-East/IX-XIII	178	26	86	86	38	46	83	20	23
<u>TENEMENT BELT</u>	1265	224	498	546	187	170	379	51	75
<u>STUDY AREA</u>	2213	373	648	609	188	176	410	81	96
Liquidated plots	-	321	19	56	-	-	-	-	-
Powisłe	274	68	36	20	38	3	27	53	29
Wola Suburb	/45/	71	11	5 <sup>+</sup>	13	61	65	11	41
Elsewhere in W-w City	/62/	-	13	4	27	23	2	23	13
<u>INNER PERIPHERY /excl. Praga/</u>	381	139	60	29	78	87	94	87	83
Not located	/396/+50	-	-	-	34	59	137	85	335
<u>TOTAL : LEFTBANK W-W</u>	3040	512	708	694	300	322	641	255	514
Praga - rightbank	540	-233	-232	?	301	1142	?	?	?

divisions, the ownership of which was frequently disputed; as many as 446 plots listed in 1784 have not been accounted for in Table 12. Plots were designated real-estate numbers (*numery hipoteczne*) according to the following areas:

Leftbank Warsaw	1 - 3063
(within the customs wall)	
Suburbs (including Wola)	3064 - 3134
	Powązki: 1 - 20
Praga	1 - 540

A mapping of real estate according to the original system of numeration introduced in the late-18th. century is intended to facilitate the locating of building plots undergoing intensive development during the late-19th. and early-20th. centuries (cf. Table 13 and map B of plate Xc). Although parcellisation was already advanced over large parts of the tenement belt, most plots had yet to be built up at high density. The urban area was concentrated on the later North-Central, Castle and New Town commissariats (I, II, XII), following the main growth axes of Krakowskie Przedmieście and Senatorska streets, with a high density urban fabric concentrated on the mediaeval nucleus (*Stare Miasto*) and mainly narrow plots originating from the Middle ages in the immediate vicinity. It should be emphasised that the private townships, which lost their autonomy in 1791, and whose borders had been defined by mediaeval field boundaries, represent an early stage in the spatial definition of future tenement districts; e.g. Leszno, Wielopole/Mirów, Grzybów in the West, Bielino with Nowoświecka jurydyka in the future commercial centre, Bożydar-Nowogrodzka in the South and even Mariensztat-Tamka-Solec in Powiśle (compare maps A and B in plate Xc).



Table 13: SYTEMATISATION OF BUILDING PLOTS IN THE STUDY AREA ACCORDING TO LAND REGISTRY NUMBERS

Sub-study area (municipal district in Roman nos.)	land registry numbers (1 - 3063)	sub-study area groupings (systematisation)
CBD-C (STARE MIASTO/I)	1-218, 236-247B, 281-305, 363-'5, 504-'33	
T-1 (NOWE MIASTO/II)a.	219-'35, 248/9-'80, 306-'62, (1855/6-1927)	(1-644) OLD-CENTRAL W-W (*STARA WARSZAWA*)
CBD-B+E (N.CENTRAL/XII)	366-405, 413-503, 534-644, (739-'42, 1077A-'78CD, 1780-'91/2)	
T-5 (MIRÓW-CBD/VII-XII)	715-737/8, 743-755, 782-804, 813-'20, 935/6-'90, 1008A-'30	
T-6 (MIRÓW/VII)	(645/6-696) 697-714, 756-'81, 805-'12, 821-934, 991-1007B, 1031-'39	(645-1036A) MID-WESTERN (MIRÓW)
T-7 (GRZYBÓW/VIII)a.	1054-'65, 1079-'91, 1094A-1107A, 1192-1222, 1244A-B	
T-8 (TOWAROWA/VI)	1037-'53, 1092A-'93, 1108-'12, 1117-'23, 1143-'91AB, 1223-'43B	(1037-1244B) WESTERN : SOUTH-WEST
CBD-A (BANK DISTRICT/I)	(406/7-'12, 1066A-'76), 1245A-'46, 1322-'8, 1346B-'52B, 1362-'9, 1401-'4	
CBD-F (NOWY ŚWIAT/X)a.	1247-1321, 1331AB-'45B, 1353-'61, 1392-1400	(1245A-1369) NEW CITY CENTRE
T-7 (GRZYBÓW/VIII)b.	1370-'88A, 1405-'92C, 1497-1517, 1536-'58, 1568/9-'72/3	
CBD-F (NOWY ŚWIAT/X)b.	1518-'35, 1559A-'67, 1574-'81 (1592)	(1370-1581) WESTERN-CBD (VIENNA STATION)
T-9 (KOSZYKI/XI)	(1388B-'90C), 1582BH-F, 1600A-S, 1642-'3, 1676, 1758BC (1444-'47B)	
T-10 (SOUTH-EAST/IX-XIII)	(1391), 1582G-'91, 1593-'99, 1601-'41, 1644-'75, 1677-1752, 1754-'8A (1269-'86B) 1759-'63B	(1582-1763B) SOUTHERN TENEMENT BELT
T-1 (NOWE MIASTO/II)b.	1764-'70, 1801-'12, 1820-'26, 2166/7, 2176-'81, (2302-'7D)	
T-3 (NALEWKI/IV)	1771-'79, 1793-1800, 1813-'19, 2160-'65C, 2190-2213, 2232A-'87E	(1764-2287E) NORTH-WESTERN (JEWISH CENTRE)
T-4 (OKOPOWA/V)	2288-2301, 2308-'20, 2325-'39F, 2354B-'57, 2489-'94 (2271A-'74B)	
T-2 (LESZNO/III)	(645/6-'96), 2321-'4, 2340-'53/4, 2358-2488, 2495-2521	(2288-2521) NORTH-WESTERN : JEWISH EXPANSION
ALEXANDER CITADEL :	=1827-'54, 1865-'9, 1892-1910, 1928-2159, 2168-'75, 2182-'9, 2214-'31=	EX-NORTHERN DISTRICT
T-1 (MARIENSZTAT)	2544-2563 1/2522-'43 liquidated/	
CBD-C	2585-2593/4	
CBD-D(I)	2608-'41, 2645-2666, 2680-'7, 2697-2725	(Central-escarp. in I/II+X)
CBD-B+E	2642-'4, 2667A-'79, 2688A-'96, 2737A-'41, 2795-'98/9	
CBD-F	2765-'83/4B, 2837-'67/8, 2872-2904, 2979A-'83A-F	ESCARPMENT/ RIVERSIDE
POWIŚLE	2564-'84, 2594AB-2606/7, 2726-'37, 2742-'64, 2785A-'94B	(2522-3063)
	2869-'71, 2800-'36, 2905-'78, 2984-3063	(Inner-periphery in I/II, X+XIII)

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Real-estate numeration operated as an address system, supplemented by civilian police registration numbers (*numery policyjne*) until a new and regular plan was introduced to the municipal area in 1875, operating in a large part to this day. 2213 "developed" properties have been identified within the Mid-Town study area, excluding Powiśle, Wola and other suburban areas ("Inner Perpheral" in Table 12); i.e. "stone houses" and (predominantly wooden) "houses", "manors" or "cottages".

During the years 1784-1852 some plots were merged (especially in the Old Town), others subparcelled (e.g. 473A-C on Senatorska street in the city centre), while some were cleared to make way for "public places" (e.g. the Old Town Hall, no. 34 demolished in 1818 or nos. 1276-'79 removed during the enlarging of Alexander/Three Crosses Square before 1821; cf. Tables II and III in the annex). The Alexander Citadel already occupied the site of 321 Fawory/Zoliborz plots and its esplanade would subsequently consume a further 75 property divisions (refer to "The liquidated Northern District" in Chapter 7). The number of building plots in leftbank Warsaw for the year 1852, according to the H. Świątkowski register, amounted to 2785. A small degree of plot subparcelisation in central quarters (CBD-A to F) but especially in Nalewki and Grzybów districts in the pre-tenement belt area were therefore largely offset above all by the clearance of Fawory-Zoliborz, apart from plot enlargements in the city centre. Compared to rapid growth in the late-1700s, urban expansion during the first half of the 19th. century was sluggish (1792: c. 115,000 inhabitants; 1860 162,800 registered citizens).

## SUBPARCELLISATION OF BUILDING PLOTS BETWEEN 1852 AND 1869

(Annex table III)

Intensified urban development in the mid-1800s is reflected in the creation of 648 building plots in the study area, almost 500 of which were located in sub-study areas T-1 to T-10 in the evolving tenement belt. New plots were demarcated according to the original real-estate divisions within the municipal area from which they had been demarcated; e.g. nos. 609A-O on the newly-laid out Count Berg and Włodzimierska streets in the bank district (CBD-A), arising from a subparcelled garden formerly belonging to the Holy Cross Church on Krakowskie Przedmieście (609). Parcellisation was evidently underway in the Nalewki quarter, as well as in parts of the city centre, excluding the assimilation quarters of CBD-A and Nowy Świat/CBD-F. In most tenement belt districts, apart from Nowe Miasto/T-1 a precursor to intensive urbanisation is well defined by the demarcation of new plots, particularly in Grzybów, Leszno and the south-eastern Mid-Town districts; to a lesser degree the more peripherally situated Okopowa, Towarowa and Koszyki where urbanisation did not begin on any significant scale until the 1870s (T-2, T-4, T-8 and T-9 respectively).

## THE 1870s BUILDING BOOM

(Annex table IV)

The climax in real-estate demarcation was prolonged into the 1870s with the defining of a further 694 building plots up to 1875 (according to the property registry of that year), 546 of which have been located in the tenement belt. The Okopowa (T-4), Koszyki (T-9) and Towarowa (T-8) figure more prominently in this process, although plot

parcellisation continued on a large scale in the Leszno (T-2), Grzybów (T-7) and South-Eastern (T-10) quarters. Reduced space in the centre, as well in Nalewki (T-3), Nowe Miasto (T-1) and Mirów (T-5/6) districts is indicated by an overall decline in new plots.

In Wola insignificant parcellisation until the late-1880s, in spite of the ready availability of open land, reflects the relative absence of property speculation in suburban areas. In the riverside district of Powiśle, however, the process was somewhat reversed, with as many as 68 new plots being created before the 1850s; a clear indication of the area's early-industrial development. In Praga, the third main inner-peripheral district, an intensive phase of urban growth did not get underway until the 1870s, but thereafter was relatively continuous (i.e. 445 new plots up to 1887, excluding the incorporation of a further 391 plots in that year; concentrated mainly in the *Konoparszczyzna*), increasing more than twofold up to 1914) The number of plots recorded in East-Bank Warsaw between 1784 and 1852 had almost been halved in connection with the urban dissolution brought about by Russian sacking (1794), demographic decline and destructive military strategy introduced by the Napoleonic army.

The extent to which newly demarcated plots were developed in the 1870s is well recorded in the 1882 one-day census; this data is presented in annex table IV. Włodzimierska Street, for instance, in the commercial centre (CBD-A), laid out in the early-1860s with new plots, can be seen to have been largely built up by 1882, while Foksal Street in Nowy Świat/CBD-F had yet to take shape, beyond the palace and villas raised at its escarpment end (cf. photographic documentation "Street profiles" and

"Foksal Street Profile" in Chapter 11). Tenement house street profiles can also be seen to have already taken shape in the 1870s on the following streets: Dzielna, Nowolipki, Nowolipie (T-2); Muranowska (T-3); Śliska, Sienna, west-Złota, west-Chmielna (T-7); Żelazna (T-8); Jerusalem Avenue; Nowogrodzka, Wspólna, Hoża, Wilcza and Piękna (T-10, to some extent T-9). A strong contrast can be detected between properties raised on plots created from the 1860s in Okopowa (e.g. Wołyńska, Ostrowska, west-Miła streets) and those in the southern districts (Krucza, Żurawia, Hoża and especially the villas of Róż Avenue). In these regions where "true" barracks-houses composed of more than 20 apartments have been identified, the predominance of singleroom dwellings in the Okopowa is suggested by large numbers of tenants (e.g. 152 in the wooden tenement on Wołyńska 24/2171C), whereas tenements of the southern Mid-Town rarely housed more than 100 residents and represented a building form which had fully evolved in relation to the socio-economic forces of that period (cf. tenement case study "B" which would have comprised more than 20 apartments by the early-20th. century but retained its original floor-plan at least in the frontal house and palace-like 2-floor outbuilding).

THE LATE 1870S

(Annex table V)

The unprecedented scale of plot demarcation and constructional activity at this time would be presumed to explain the introduction of a new system of numeration at the Land Registry Office (c. 1876). Confusion may be assumed to have arisen from the lettering of new plots subparcelled from the original real-estate parcel (e.g.

1549AB/I - Z from 1549); a supposition vindicated by frequent errors in the tax office property registers published in the 1870s. This letter system was inconsequential. In previously undeveloped quarters of the Mid-Town, the number of building plots subpartitioned from the original real-estate division frequently exceeded the number of letters in the alphabet (from Land Registry parcel 2313 in Okopowa, for instance, new addresses ranged from 2313A/1-A/21 to 2313XXa (!)). The number system for newly demarcated plots commencing from no. 5000 after 1876 gives rise to the impression that the municipal authorities had intended to dispense with the derisive letter system altogether (to be replaced by nos. 3141 - 4999?), but such hypothetical plans were never effected and the letter designation of plots demarcated between c. 1784 and 1875/6 were to remain unaltered.

A significant decline in newly-created parcels between 1876 and 1882 (300 in leftbank Warsaw compared to 694 in 1869-'75) indicates a reduction in the availability of open land in the Mid-Town. Nearly half of the new building plots were located in Wola, Powiśle and other districts lying beyond the former customs wall. Of the properties designated real-estate nos. 5000 - 5300, 134 had undergone some degree of development upto 1882 and of these around 50 have been identified as true barracks-tenements; a further 26 contained between 10 and 20 rented apartments.

It should be born in mind that many tenements raised in the late-1870s would have tended to include a significant proportion of vacant apartments. S. Herbst and J. Cegielski suggest a major contributive factor in the 1880s building depression would have been a reduction in the demand for better-quality housing among the wealthier

elements of society for whom such housing had been designed. Many tenements, therefore, were not operating at full capacity at the time the one-day census was carried out. It is interesting to note that some real estate was being registered according to the defunct letter system; old habits died hard? (e.g. no. 5000 in Wola suburb had already itself been subparcelled by 1882 into 5000 and 5000A).

Properties 5000/5000A - 5300 were dispersed throughout the city; as such, real-estate numeration from the mid 1870s until World War I, although not relating to street address, may be presumed to have been broadly chronological (cf. plates VI-VIII). Land Registry numbers are consistent in cases where a series of new plots was created simultaneously out of an older plot (e.g. 5071-'3 subparcelled from the original plot 2386; street addresses Nowolipki 38a-c), or in the laying out of new streets (e.g. 5134-'47: Litewska Street opened up in c. 1875).

#### THE SUBPARCELLING OF BUILDING PLOTS IN 1882-1915

(Annex tables VI, VII and VIII)

The process of building plot demarcation through real-estate subparcelisation in leftbank Warsaw is comparatively well documented until 1882. Information verifying the often inaccurate tax registries may be drawn from the 1852 and 1869 publications of H. Świątkowski and W. Dzierżanowski, but above all there is the detailed inventory of apartments and numbers of houses recorded in 1882 for every inhabited Warsaw property, on the basis of which it has been possible to map the diffusion of tenement barracks housing types in the study area until that year (plate Xd).

The inventorisation of building plot demarcation and the location of newly-developed properties after 1882 until 1919 has had to be based exclusively on the tax office registers, which might be supplemented by the real-estate files for individual properties (all 4527 of them in the study area, of which some 2208 have been identified as being laid out and subsequently developed between 1852 and 1915). A time-consuming but methodologically feasible location of each of these new properties would have to be based on detailed cartographic sources available from the years 1867, 1897, 1903, 1925 and 1936 (cf. plates Va-b and VIa-e in Chapter 6).

The tracing of subsequent developments in properties numbered 5000 - 5300 not recorded, and thus presumed to have been undeveloped or at least non-residential in 1882, is presented in annex table VI. Of the 166 not listed by the one-day census, 34 have not been located; this means they still were not listed in the final property register relevant to the urban analysis (published in 1918, but in fact recording no changes since the previous released data of 1915, suggesting the municipal authorities, in spite of the 1916 survey of property in the suburban *arrondissements* (XVI-XXVI), had failed to register any new real-estate development during the intervening years, even though some changes would have inevitably taken place during the war years. Of the remaining 136 building plots laid out between c. 1876 and 1882, as many as 109 had been built up at high density in the 1880s or, as would be assumed more likely, during the 1890s on the grounds that they were listed in property registries issued in 1888, 1893, 1897 or 1901 and their owners were being taxed by the municipality for owning developed property (refer to "Mokotów outer



tenement district" in Chapter 8).

An attempt has been made to trace the subsequent demarcation of real-estate divisions (nos. 5300-7093) upto the First World War. Assuming each Land Registry number denotes a single address, it would appear that about 1732 "new" plots were created in the Mid-Town municipal districts (including Powiśle and Wola) between the property censuses of 1882 and 1919. A very significant 616 real-estate parcels have not been located; i.e. a whole third of building plots demarcated in the 1880s, 1890s and early-20th. century. Reference to the base plan has shown many plots not listed in the property census were still awaiting development in the inter-war years (especially in Wola and that part of Ochata incorporated into the city in 1908); an established fact lending support to the supposition that owners did not register undeveloped real estate at the tax office to avoid paying official levies on it, and that the authorities made no attempt to verify the enormous gaps in real estate registered at the Town Hall and the Land Registry Office. In 1919 633 out of 6048 building plots in the Mid-Town *arrondissements* were listed as undeveloped.

Retaining real-estate divisions neither listed in the 1918 property register nor identified on the base plan, 6144 building plots lying within the pre-1916 leftbank municipal boundaries have been calculated in accordance with the data recorded in tables II-VIII. This figure tallies with the number of parcels counted in the 1919 property census (6048), allowing for minor shifts in municipal boundaries between the inner and outer municipal districts carried out in connection with the "Great Incorporation" of 1916 (cf. Table I in Chapter 1, Fig. 1.6

in Chapter 3 and compare the results of annex table I in Part III with Table 12 in this chapter).

Following a period of reduced activity in the 1880s, during which a minimal 170 new plots were laid out in the tenement belt, 87 in inner-peripheral districts and 6 in the city centre, reinvigorated property speculation is evident during the 1890s when out of 641 new Land Registry numbers (5622-6264), as many as 379 plots have been located in tenement districts T-1 to T-10, 92 in Wola and Powiśle and even 31 in the centre. The dominant tendency is thus seen to involve property development at increasingly higher density in the Mid-Town rather than gradual spatial expansion into suburban areas. There were still, however, areas of open land within the former customs wall which were to be built up with new, high-rise tenements in the early 1900s; e.g. in Koszyki and Ujazdów. New plots were also being laid out in quite large numbers in Okopowa commissariat, although housing types here cannot be expected to have correlated with those in the Southern District (refer to "Urban form and housing types in Okopowa commissariat" in Chapter 12).

The slackened pace of urban development at the beginning of the 20th. century is well reflected in another decline of newly-registered properties between c.1901 and 1908 (nos. 6265-6518 in annex table VIII). A further 514 plots (nos. 6519-7093) appear in the tax registers of 1915 and 1918, but of these as many as 335 (i.e almost two-thirds were not listed in either of these registers; nor have they been located on the base plan. Of the remainder, it is worth observing that more plots have been located in Wola (41) or Powiśle (29) than in any of the tenement belt districts. Assuming real-estate parcels

6519-7093 which it has not been possible to locate were demarcated before 1914-'15, it would appear that the urban process, abruptly halted after August 1914, had yet to reach these new plots which must have been situated mainly in peripheral districts, for there was very little space left even at the heart of street blocks for further parcellisation or subparcellisation in the Mid-Town (i.e. in Powiśle, municipal Wola and Ochota, as well as in small enclaves of Mokotów and Sielce districts already incorporated into municipal Warsaw).

CHAPTER 11

EMPIRICAL RESEARCH IN THE MODERN URBAN LANDSCAPE

The Second World War

An evaluation of the modern urban landscape must, unavoidably, take into account first and foremost the damage wreaked on Warsaw during the last world war. The aerial bombardment and blowing up of cities is hardly an exceptional phenomenon in the 20th. century. Warsaw's obliteration, however, resulted not so much from rapid, devastating episodes such as the Anglo-American erasure of Dresden, but rather from gradual ruination and, above-all, so far as its citizens were concerned, the mass extermination of the Jewish populace together with selected elements of Polish society. Material damage caused by the September campaign and street fighting in the 1944 uprising may, to a certain extent, have followed a similar pattern as the long drawn out struggle for and shelling of Beirut until the recent Syrian occupation. There always remains the particularly deplorable aspect to Warsaw's fate that the Nazis wanted to level this city to the ground, no less than they intended, and in a large part succeeded, in securing the genocide of its inhabitants. Four stages of material destruction are generally recognised:

1. the *Blitzkrieg* tactics employed in September 1939: Warsaw was raided daily and increasingly furiously from 1st. to its eventual capitulation on 28th. (12% of the urban fabric demolished, bombed out or seriously damaged

and beyond repair).

2. the Ghetto Uprising and wholesale Nazi demolition of Muranów district (c. 250 hectares of the built-up Mid-Town area; another 12% or so of the urban fabric);

3. the 63 day Polish Uprising in the late-summer/early-autumn of 1944 when the Luftwaffe repeated its generally daily aerial terrorisation, street fighting waged mainly on the leftbank and German ground forces incessantly bombarded the city centre, Old Town and other inner urban districts held by the unfortunate insurgents (28% of building stock completely blown up or burnt down);

4. the October 1944 - January 1945 period when the Nazis and their stooges had leftbank Warsaw to themselves and, following Hitler's insane order, rather half-heartedly, but nevertheless in a methodic fashion, proceeded to burn down with flamethrowers or dynamite what had not previously been destroyed. "Revenge" squads (*Vernichtungskommando*) were actually deployed to carry out this peculiarly pointless act of unnecessary vandalism which claimed most of the city's most valuable architectural heritage and, according, to official statistics, destroyed more than any of the other three ghastly episodes; i.e. 30% of the building stock.

The human cost was most appalling and even more premeditated: 650,000, or over 50% of the pre-war population is very roughly estimated to have been lost through open conflicts, Nazi genocidal activities or disease and starvation, while another broadly approximated 200,000 people temporarily residing or forced by the Nazis to live in the city were slaughtered. The government, installing itself to begin with in Praga, had no interest

in exaggerating the estimated death toll; certain wartime episodes were almost as discomfoting for the new leadership as informed German public opinion.

It is not among the objectives of the urban analysis to dwell on these events; there is a wealth of literature published abroad as well as in Poland itself dealing with most aspects of the war.<sup>294</sup> Nevertheless, it is the wartime destruction of Warsaw which has been the decisive factor in shaping the modern inner urban landscape; to a greater extent perhaps than in any other European or Soviet city, with the possible exceptions of Dresden and Volgograd. Each of the four stages of material devastation was focussed on the Mid-Town. More peripherally situated districts such as outer Mokotów or Żoliborz, as well as Praga which essentially escaped the last two, most destructive phases, suffered comparatively minor physical damage. Polish socialists and nationalists alike have made a great deal of Berlin's longer term concepts to remodel the city as a neo-colonial German provincial town of between 100,000 and 130,000 German inhabitants with a satellite and subservient suburb in Praga for some 80,000 Polish manual labourers. Historic hindsight tends to produce a stereotyped interpretation of increasingly frenzied Nazi genocidal policies provoking ever more desperate reactions from the civilian populace, which led almost inevitably to the Jewish community's virtual extinction and the Polish community's climactic 2-month dance with death (in the political context of the London Poles' ill-fated challenging of Stalin's new order in Eastern Europe). Hitler and his henchmen clearly foresaw only one solution for the nerve centre of Polish resistance and the largest single concentration of Jewish citizens in

their empire, but, putting aside the Northwestern District's fate for the moment, the urban landscape remained remarkably intact to within 8 months of the Nazi capitulation. On the other hand, even if the final two episodes of August-October 1944 and October 1944-January 1945 which were to irrevocably transform the city's infrastructure had somehow been avoided, the social structure had already been subjected to horrific changes at least since the "Wannsee Conference" of January 1942.

Rehabilitation of the pre-war urban fabric 1945-1949

A month of continuous aerial bombardment, two catastrophic uprisings and three months of systematic demolition proved, nevertheless, not nearly so wholly devastating to the urban landscape - although a different matter where the scale of human casualties was concerned - than a single atomic bomb. Of the inner urban districts Praga stands out as the least materially damaged, while post-nuclear images of Muranów barely 2 kilometres to the west present the opposite end of the scale of destruction brought about in the same city. (cf.. "Wartime Destruction" in the photographic documentation placed at the end of this chapter). Even W. Tomkiewicz estimated that 73 million m<sup>3</sup> of Warsaw's building stock was completely obliterated between September 1939 and January 1945, 30 million m<sup>3</sup> of the pre-war urban fabric remained intact or potentially repairable.<sup>295</sup> The post-war political realignment in Europe meant Poland did not take part in the Marshall aid recovery programme and it was not until the late-1940s that

a reconstruction plan prepared by the new central authorities began to have any immediate impact on the urban landscape. Between June 1945 and 1949 the city's population within its pre-1939 administrative boundaries (little altered since the "great" incorporation of 1916) had shot up from 377,926 to 604,907 inhabitants; an increase of 160%. The greatest rise (209%) was recorded in the leftbank Mid-Town commissariats, but it was these same central quarters which had undergone, as would be expected, the most staggering wartime decline; from 750,000 in 1938 to a meagre 86,222 in summer 1945 (barely 22,000 in the whole of leftbank Warsaw in January of that year). During the second half of the 1940s, before the 1948 reconstruction programme introduced by President Bierut ushered in an era of central planning prevailing until the late-1980s, the number of registered residents in the Mid-Town thus rose by some 94,194 people. These people had to make homes for themselves not such much in the ruins as out of the ruined fabric of the pre-war inner urban area.

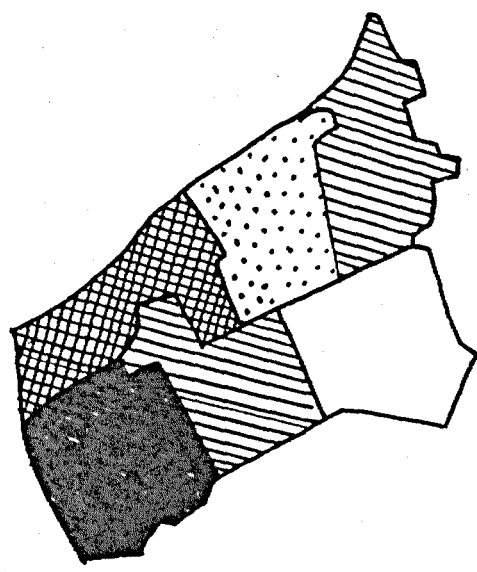
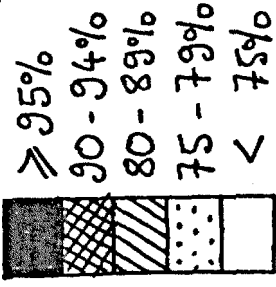
In Fig. 3.11 wartime destruction and post-war rehabilitation of habitable apartments had been calculated from statistics released in 1949. This data indicates the extent to which the pre-war urban landscape, originating largely from the 1864-1914 period under investigation, was made inhabitable after 1945 and to a large extent has been incorporated into the modern urban fabric, in spite of certain urban clearance and redevelopment schemes realised in the post-war decades of People's Poland.



Figure 3.11: DESTRUCTION AND REHABILITATION OF HOUSING STOCK IN THE MID-TOWN 1939-1949.

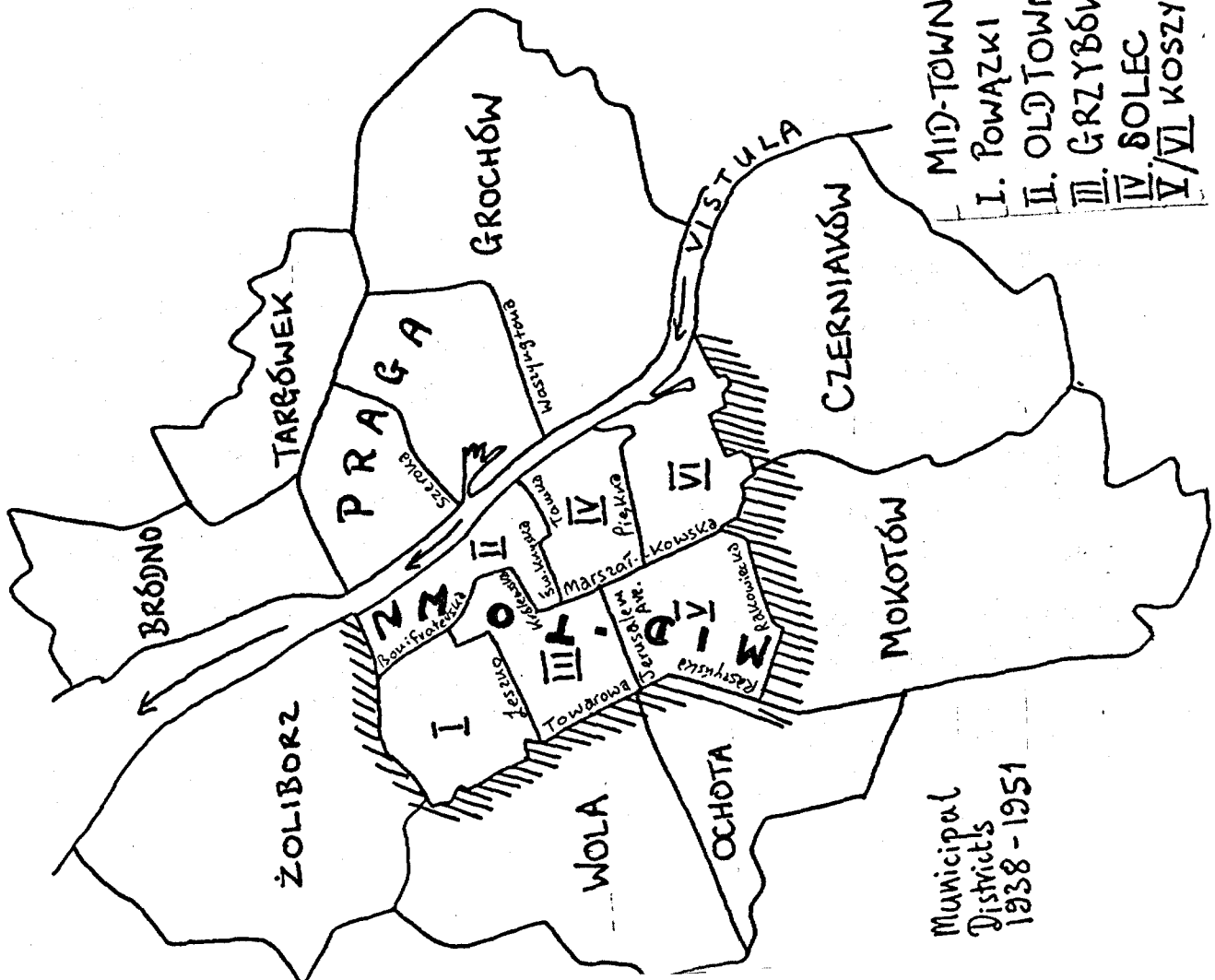
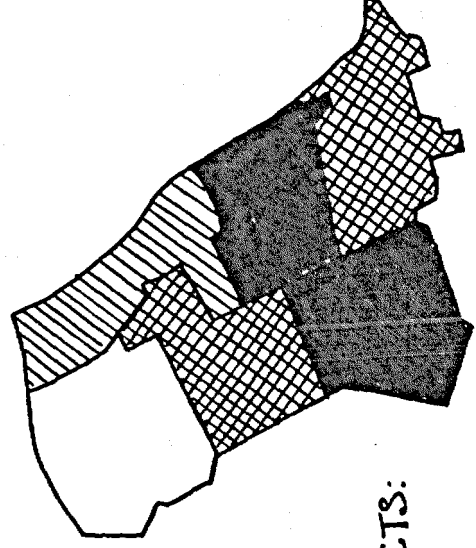
MATERIAL DESTRUCTION 1939-1945

% of destroyed/ruined flats (1945):



REHABILITATION OF LIVING SPACE 1945-1949:

< 10% of pre-war flats:  
10-24%  
25-50%  
> 50% of pre-war flats:



- MID-TOWN DISTRICTS:  
I. POWĄZKI  
II. OLD TOWN  
III. GRZYBÓW  
IV. SOŁEC  
V/VI. KOSZYKI/UJAZDÓW

Municipal Districts 1938-1951

Post-war reconstruction and redevelopment  
in Mid-Town Warsaw

Warsaw became the only Polish city in which real estate within the municipal boundaries was entirely communalised according to a decree issued by the new government in 1945 and justified by the exceptional situation. An earlier decree passed by the Polish government based in Lublin from September 1944, apart from taking on the responsibility of reconstructing Poland's destroyed cities, reserved the right to allocate flats and control rents. Thus, apart from taking real estate out of the hands of those proprietors who had survived the war and remained in or returned to the country, the state also reserved the right to dictate the way in which property, where it had survived the war, might be utilised and the financial gains which might be drawn from these functions. In the remaining housing stock of Warsaw's Mid-Town this latter decree would have led to the subdividing of large apartments in wealthier tenements to provide accommodation for the city's homeless, refugees and the first rural immigrants. The new authorities are frequently depicted as cynically taking advantage of the extreme state of affairs to dispossess property owners from 1944/'45 of their real estate. This is an interpretation open to debate. Whatever, the pre-war spatial distinction of class and income groups would appear to have been swept away as much by the war itself as post-war centralised government policies. Some of the former spatial distinctions may well be returning at the time of writing as the "dispossessed" property landlords or their inheritors begin their law suits and the municipal authorities start handing back the tenements or other real

state of their pre-1945 owners.

A summary of changes brought about to the Mid-Town urban landscape in the post-war era according to a territorial breakdown into the six inner leftbank commissariats operating until 1951 is presented below. This overall appraisal is intended to determine in broad terms the extent to which the pre-war urban fabric has been incorporated into the modern building structure.

POWAZKI

former *arrondissements*:

- Leszno (III),
- Nalewki (IV),
- Okopowa (V)

1939: 42,800 flats = 100%  
 1945: 600 " = 1.4%  
 1949: 1,300 " = 3%

1939-1949: almost total destruction and demolition of buildings in 1943-'45; very little remained that could be adapted for housing, although bricks were retrieved from the "Ghetto" ruins during redevelopment from 1948.

1949-1991: "Muranów" housing estates I, II and III raised in places on top of the ruins (changes to physical topography); high-rise blocks from the 1960s north of Dzielna Street, symbolising the break with previous "socialist-realist" white-washed brick architecture from c. 1948-1958. The street network was redrawn in certain parts; e.g. in the vicinity of Muranowski Square; Nalewki high street itself was replaced by a northern extension of Marszałkowska Street leading to Żoliborz (now General W. Anders St.; cf. Fig. 3. in Chapter 12).

2. OLD TOWN

former *arrondissements*:

Castle District (I)

New Town (II)

- 1939: 22,200 flats = 100%
- 1945: 1,400 " = 6.3%
- 1949: 3,500 " = 15.8%

1939-1949: the Old Town was completely obliterated in 1944; in the New Town, immediately behind the "Ghetto", tenement frontages often remained, but these were uninhabitable beyond ground- or certain 1st. floor dwellings; Krakowskie Przedmieście and the bank district south of Królewska Street suffered less and were partially rehabilitated after 1945.

1949-1991: urban clearance followed from the mid-1950s in the New Town west of Freta Street, the Old Town was reconstructed as a historic quarter, at lower density than prior to 1944, together with Miodowa and Krakowskie Przedmieście; dispersed, low-level housing blocks were put up in the New Town; Świętokrzyska Street was widened and fronted with monumental, pseudo-classical high-rise.

3. GRZYBÓW

former *arrondissements*:

Mirów (VII),

Grzybów (VIII),

North-Central (XII)

- 1939: 46,600 flats = 100%
- 1945: 5,600 " = 12%
- 1949: 12,800 " = 27.5%

1939-1949: Extensive destruction in 1944, especially in Mirów, like Nowe Miasto lying immediately beyond the "Ghetto" area, as well as in Grzybów (VIII) which until 1942/'3 had been largely Jewish/polonised Jewish, while the

northern-central district had been a major area of street fighting during the 1944 uprising. Lower storeys adapted as a "temporary" measure, most of the public buildings set aside for reconstruction or redevelopment.

1949-1991: clearance of shelled buildings delayed in the 1950s beyond new Mirów I and II housing estates; Grzybów tenement district beyond small enclaves erased to make way for the Palace of Culture and Science (1952-1956); smaller units of pre-war landscape have survived in spite of extensive redevelopment from the early-1960s for Theatre Square and Za Żelazną Bramą high-rise estates; Theatre and former Victory squares deprived of numerous pre-war public-administrative buildings which have not been replaced. Large-scale concepts of inner urban regeneration in Za Żelazną Bramą and Victory/Marshal Piłsudski Square and Parade (Defilad) Square areas from the mid-1980s have come to nothing and been replaced by piecemeal, usually private investments.

4. SOLEC

*former arrondissements:*

Nowy Świat (X)

Aleksandryjska (XIII)

1939: 22,100 flats = 100%

1945: 5,300 " = 24%

1949: 11,500 " = 52%

1939-1949: extensive damage caused primarily during the second uprising and some "revenge squad" activity upto Soviet liberation; a significant proportion of the pre-war housing stock was put to use thereafter.

1949-1991: urban clearance was carried out in parts of Solec-Powiśle, designated a "green belt area" from 1952 when the "Park of Culture and Rest" was laid out, although

enclaves of early-20th. century tenement development and interwar housing have remained, some high-rise blocks in the 1960s and 1970s; in the CBD Nowy Świat was rebuilt with a uniform, 3-storey cornice line, including some inaccurately reconstructed neo-Classical frontages, tenement back-buildings have been largely demolished or lowered while the Chmielna and Foksal street profiles have been partially retained; some bank and office tenements were readapted between Jasna-Zgoda-Bracka and Marszałkowska streets; south of Jerusalem Avenue, Nowogrodzka and Wilcza streets have most fully preserved their tenement profiles and outbuildings, while Krucza, apart from individual property cells, has almost completely given way to "stalinist classical" monumentalism; Marszałkowska's profile has undergone a complete transformation.

4. KOSZYKI former arrondissements:  
5. UJAZDÓW Koszyki (XI),  
Ujazdów (IX);  
also parts of Ochota arrondissement

1939: 22,400 flats = 100%  
1945: 5,100 " = 22.8%  
1949: 12,800 " = 57.1%

1939-1945: the Nazi administrators requisitioned large parts of the southern Mid-Town districts; as a result this, the most genteel part of inner leftbank Warsaw was spared extensive damage. Entire groups of street blocks and relatively complete street profiles have remained; e.g. Wielka/Poznańska, Wielka/Lwowska, Polna/Noakowskiego, Leopoldyna/Emilii Plater, (east-) Wilcza, Mokotowska and even southern Marszałkowska with Unia Lubelska Square/

Mokotów Circus.

1949-1991: the Southern District, developed mainly in the 1890s and early 1900s, has thus been integrated into the modern urban landscape more fully than any other quarter within the perceived tenement-barracks-city. A wealth of tenement case studies may be drawn from the former Koszyki/Pomological Gardens and Ujazdów *arrondissements*. An opportunity is provided to observe the extent to which these properties have been assimilated into the post-war urban infrastructure, both within the planned and "post-communist" economic systems. The largest apartments will have been subdivided since 1945, many tenements underwent face lifts in the 1950s and 1960s while others were neglected by the authorities, in certain cases awaiting post-war renovation to this day. Post-modernist style "infill" projects (*zabudowa plombowa*) are beginning to replace the gaps in some street profiles, although it should be born in mind that some development from the 1950s and 1960s was also adapted to the pre-war building fabric predominating in large parts of this urban region (cf. photographic documentation). Some street blocks and a large part of the south-Marszałkowska street profile underwent extensive changes under the Bierut and Gomułka regimes (above all the MDM and Latawiec housing estates).

7. PRAGA	former <i>arrondissements</i> XIV and XV
1939: 27,100 flats = 100%	
1945: 25,000 " = 92.3%	
1949: 28,200 " = 104%	

The wartime destruction of housing in Praga is probably not far removed from the material damage inflicted on leftbank Warsaw (excluding Muranów) up to the summer of

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1944. The additional 1,100 flats created by 1949 is indicative not of new property development in the late-1940s, but rather of larger, middle-class apartments subdivided by the authorities for homeless citizens returning to the city after 1945 or rural immigrants.

Empirical investigation of tenement properties and tenement urban morphology in the modern cityscape

#### PRAGA

Praga provides the obvious prime district for empirical research of building forms comprising the urban physical structure which evolved during the 1864-1914 era. Nevertheless, the analysis of property development, apartment sizes and housing conditions in Parts I and II has revealed that social-class structure and urban morphology in inner-rightbank quarters were not very typical of the leftbank tenement belt, but closely analogous to the urban pattern and general internal structure of inner-peripheral districts such as Powiśle and Wola. Building forms in the ex-14th. and 15th. *arrondissements* are therefore supposed to be illustrative of a transitional phase in tenement house evolution, or even atypical within the urban landscape. The large proportion of wooden buildings recorded by the 1919 census in Praga properties (i.e. c. 70%; cf. Table 9<sup>a</sup> in Chapter 9) has all but completely disappeared since the 1950s. Some characteristic "tenementised" town houses or artisanal barrack-tenements have been selected as potential case



studies. The *Konopacczyzna* quarter of the New Praga inner urban area is particularly well-endowed with barracks-type housing taking shape up to the First World War (cf. photographic documentation under "Praga transitional building forms or atypical barrack-tenements").

### THE SOUTHERN MID-TOWN TENEMENT DISTRICTS

Just how representative this, early-20th. century Warsaw's most affluent region, was of urban form and social structure of the tenement-barracks-city taken as a whole is not easy to establish. Certainly, building layout, as revealed from detailed pre-war town plans, shared some typical features, such as high density development, closed courtyard warrens and continuous, if not entirely consistent street profiles.

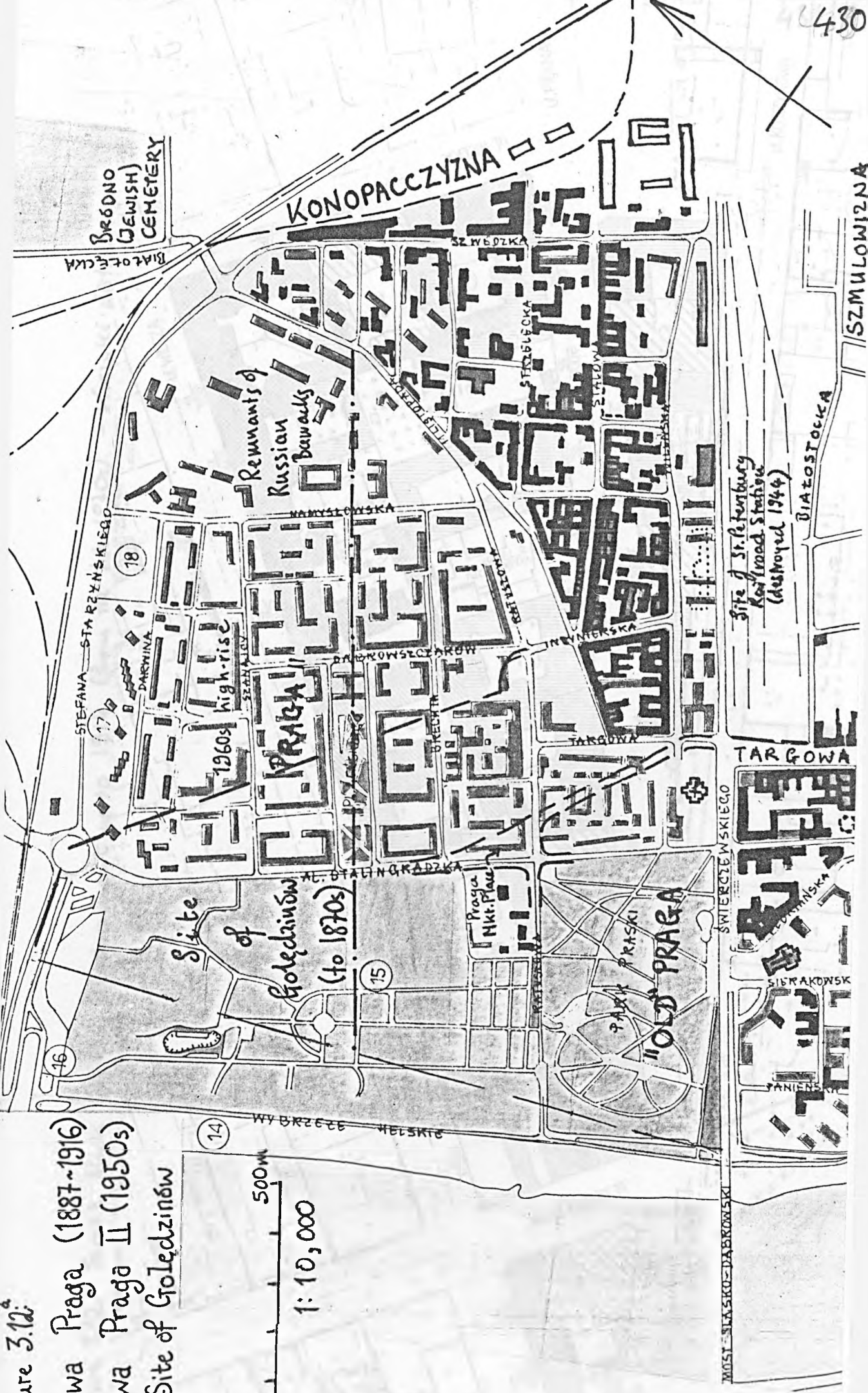
Analysis of the internal urban structure in 1914/1919 in Part I and a closer inspection of the constituent parts of the inner city have shown that apartments were generally larger in southern Mid-Town tenement belt properties than in the western, north-western and city centre regions. Mean calculations of residents to apartments, reflecting the predominantly middle/upper middle-class and high income bracket social structure, has revealed optimum housing conditions prevailed in the southern quarters. Furthermore, Koszyki and Ujazdów districts; to a lesser extent Aleksandryjska, had taken shape later than the urban core and most other tenement belt quarters. The comparative conformity of pre-war Wspólna or Piękna streets was not echoed in the profiles of Nowolipki in the north-western Mid-Town or Grzybowska traversing the Western District (*Zachodnia*; commissariats VI, VII and VIII), although it probably applied to Złota and much of Sienna in

Grzybów commissariat, as well as development from the late-1860s and 1870s on Włodzimierska (now Czackiego) and Mazowiecka streets in the city centre. The profiles of Wielka/Poznańska, Nowogrodzka, Wilcza and Leopoldyna/Emilii Plater streets, on the other hand, are typified by tenement property and even medium-sized town house forms produced by various building phases, permitting examination of the urban process throughout the study period (cf. Figs. 3. to 3. ). Moreover, a substantial portion of the pre-war urban fabric has been preserved in the former southern inner-leftbank commissariats, allowing analysis of tenement house forms in relation to an entire urban region (cf. plate XIe and compare with plates VIId and VIe in Chapter 6).

A survey of housing conditions in street blocks designated by the 1919 census commission nos. 275 and 276 fronting Jerusalem Avenue was conducted by staff and students at Warsaw Polytechnic in the mid-1970s, including among others the architect J. Roguska. This was one of the first detailed inspections of housing conditions in Warsaw tenement properties after 1945 with a view to projected reevaluation and renovation. Roguska's subsequent publications have dealt primarily with late-19th. century or early-20th. century residential building forms in the southern Mid-Town districts. Her investigations set a precedent for those carried out by the architectural surveying company "Warcent" in the 1980s when plans for "infill" projects (*zabudowa plombowa*) were being drawn up (cf. photographic documentation under "The Southern Mid-Town").

Figure 3.12<sup>a</sup>

Nowa Praga (1887-1916)  
Nowa Praga II (1950s)  
& Site of Goleđzinów



BAGNO (JEWISH) CEMETERY

KONOPACCZYŻNA

Remnants of Russian Baracks

1960s high-rise

Site of Goleđzinów (to 1870s)

"OLD PRAGA"

Site of St. Petersburg Railway Station (destroyed 1944)

SZMULOWIŻNA

BIAŁOSTOCKA

TARGOWA

SWIERCZEWSKIEGO

SIĘKAKOWSKA

PANIENSKA

MOST SŁASKO-PAROWSKI

STEFANA STARZYŃSKIEGO

18

DARWINA

1960s high-rise

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

PRAGA

46

15

14

WYBRZEŻE

WELSKIE

Praga Mkt. Place

PARK PRĄSKI

PARK PRĄSKI

PARK PRĄSKI

PARK PRĄSKI

PARK PRĄSKI

PARK PRĄSKI

PARK PRĄSKI

PARK PRĄSKI

PARK PRĄSKI

PARK PRĄSKI

PARK PRĄSKI

PARK PRĄSKI

PARK PRĄSKI

MOST SŁASKO-PAROWSKI

Figure 3.12 b Street block 266 : developoment up to 1914 (from the late-1870s) - Koszyki district

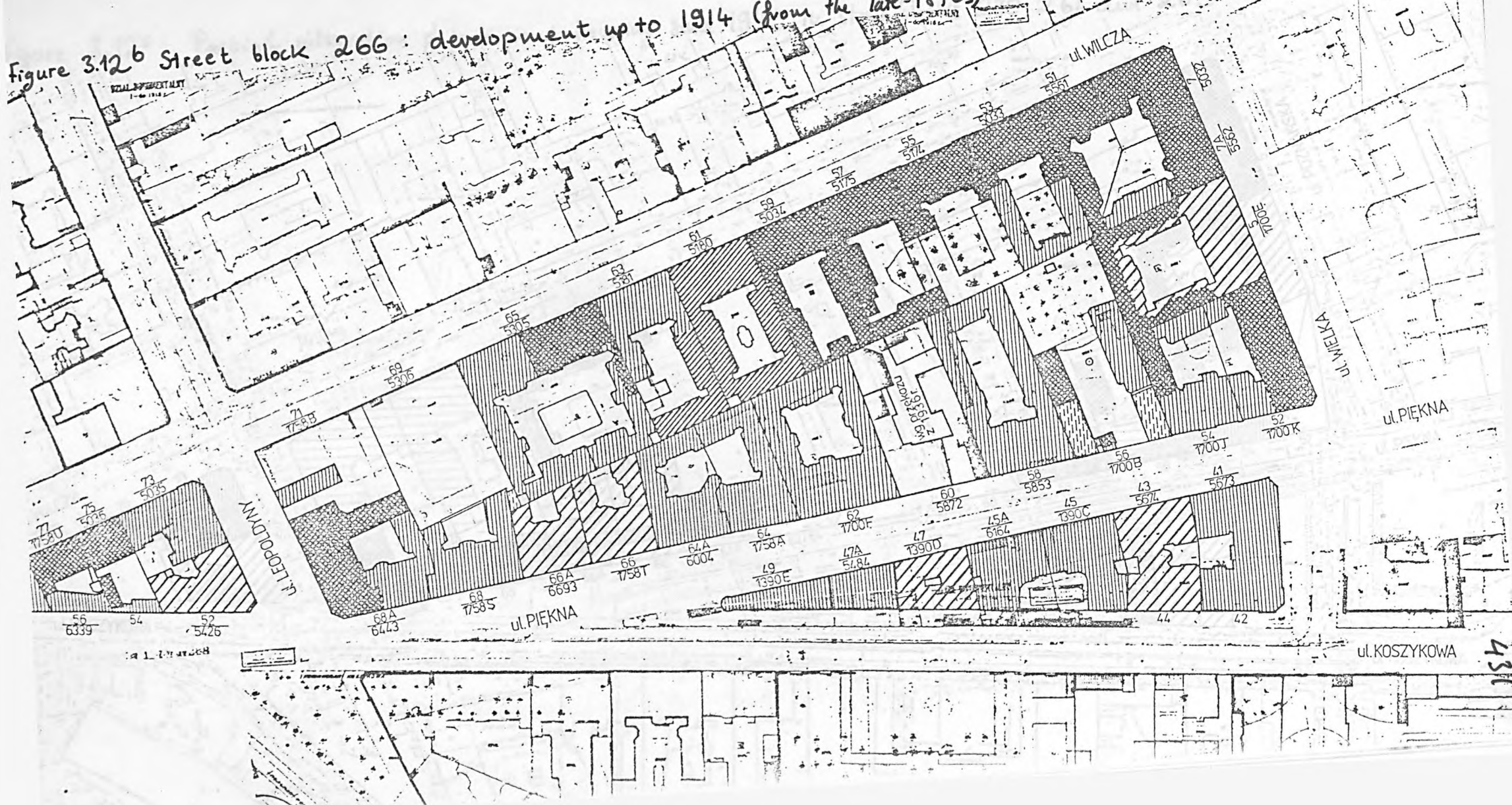
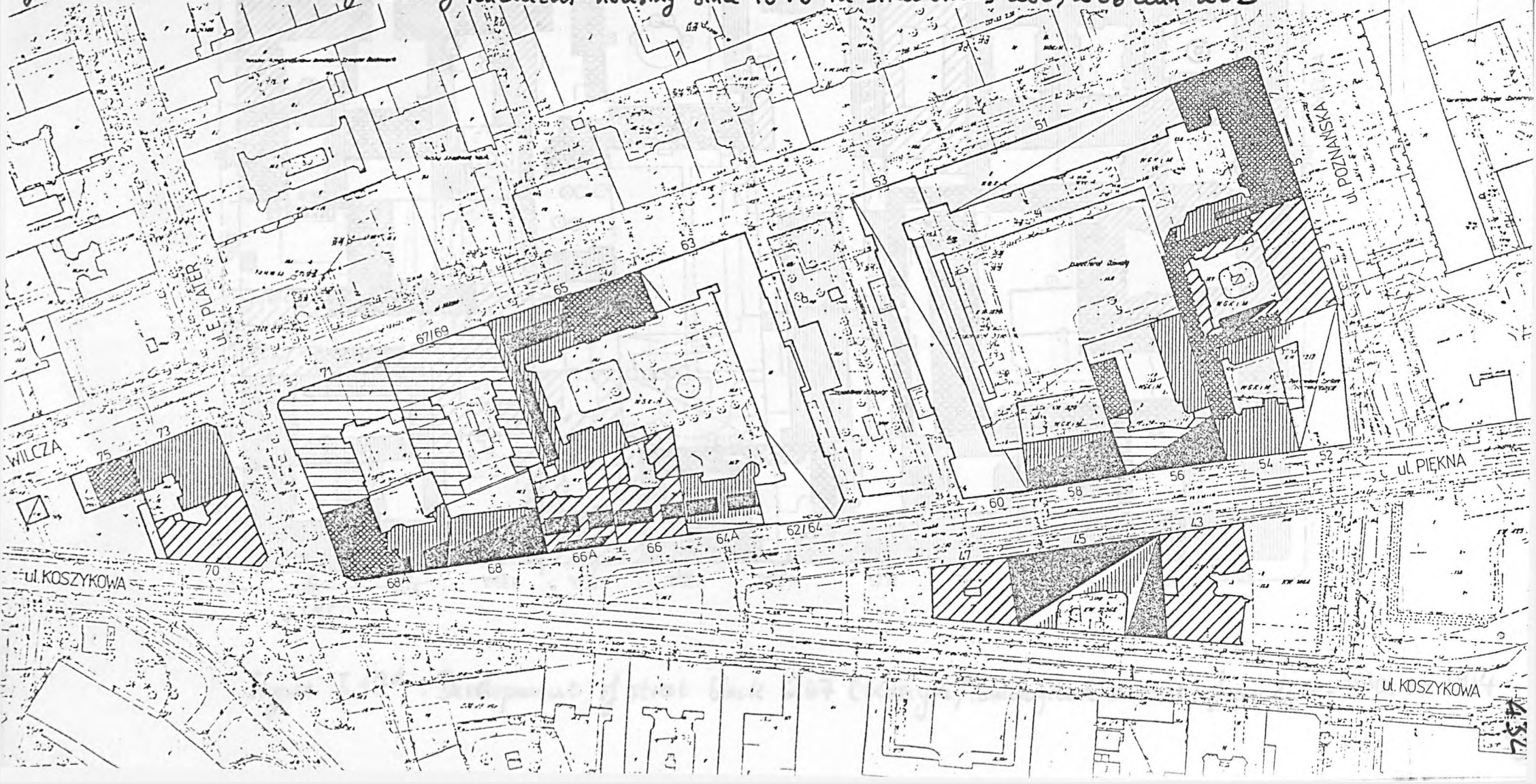




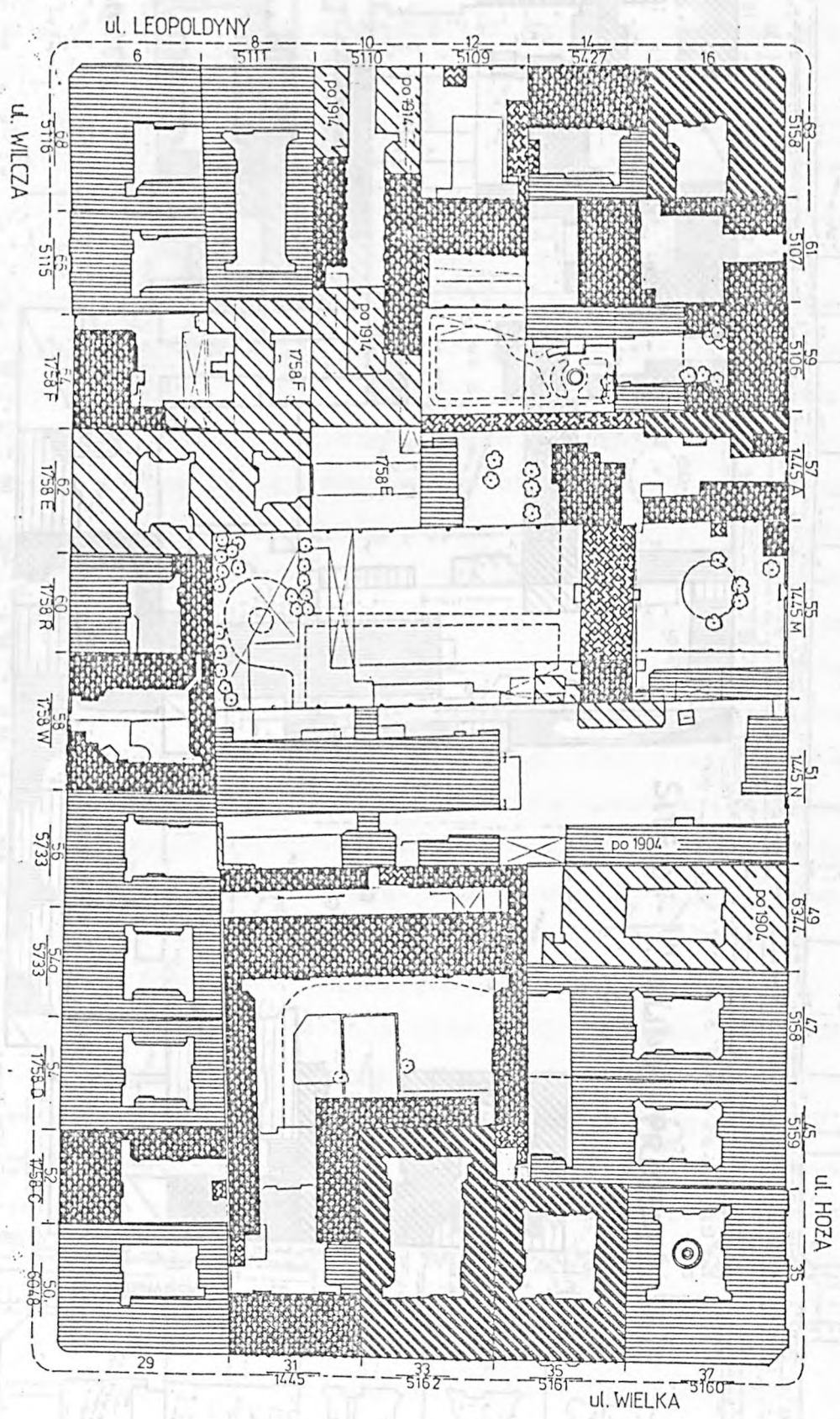
Figure 3.12<sup>c</sup>: Partial integration of tenement housing since 1949 in street blocks 280, 266 and 263



14/4

L. E. PLATER

Figure 3.12d : Development of street block 267 (Koszyki/Powolozical district) from late-1890s to 1914



433



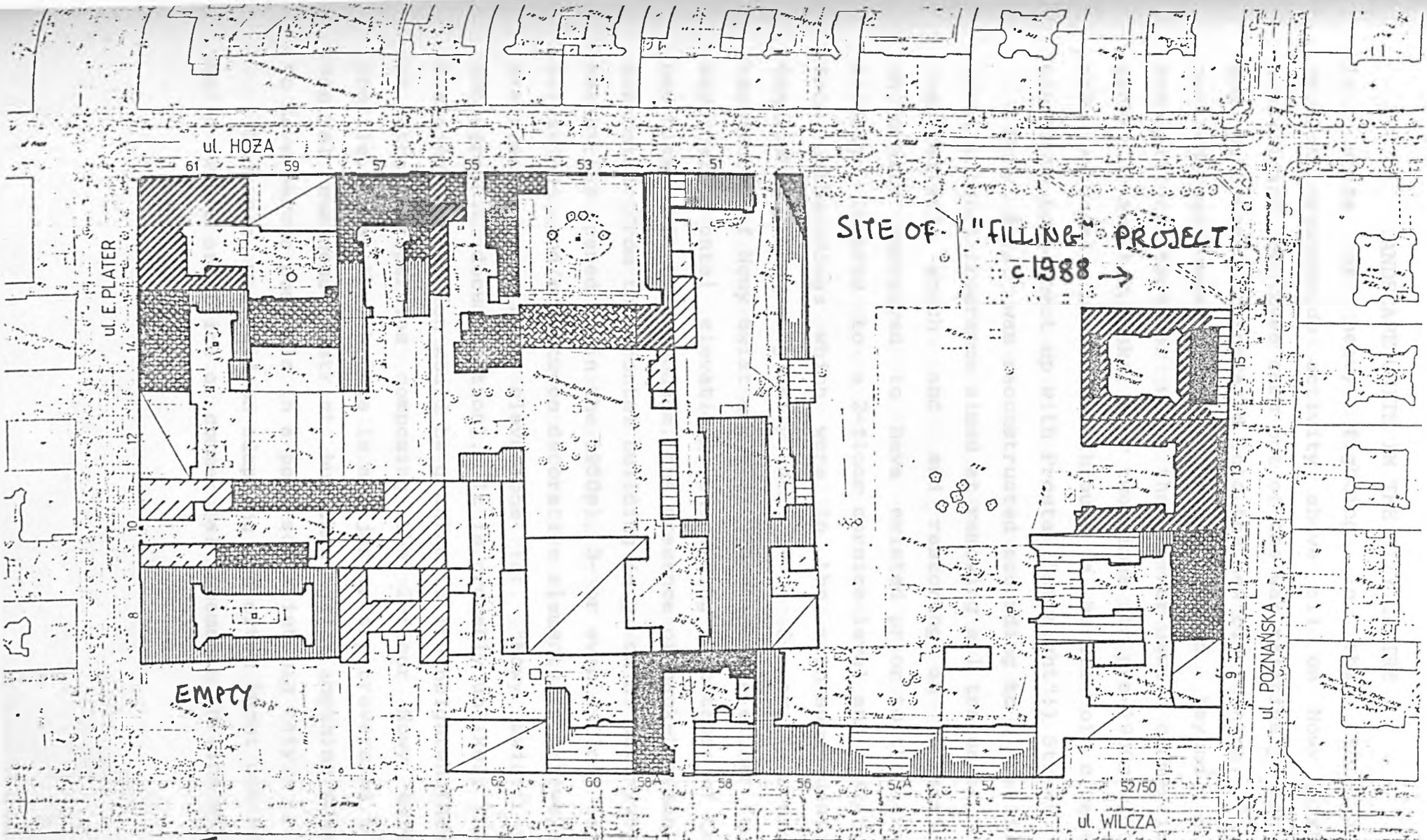


Figure 3.12e : Integration of remnant urban profile (1870s-1914) since 1949

LANDSCAPE UNITS IN THE CITY CENTRE

In spite of heavy fighting in the CBD, and *Vernichtungskommando* activity above all on Nowy Świat, significant enclaves came out of the war relatively intact and have been incorporated into the new city centre. Only north-Marszałkowska has been altered beyond all recognition, together with the pre-war Jewish commercial street of Świętokrzyska; over two times its pre-1950s width and extended westwards through a series of cleared tenements to connect up with Prosta ("straight"!) Street.

Nowy Świat was reconstructed according to a specific architectural programme aimed at removing all traces of the "capitalist" epoch and restoring an "historic" uniformity perceived to have existed prior to that era. Although lowered to a 2-floor cornice level and isolated from outbuildings which were in the main subsequently demolished, the originally 4-, 5-, 6- or 7- storey tenements of Nowy Świat are still identifiable either from atypical frontal elevations contrasting with those of the neo-Classical town houses, the presence of back-tenements separated from the frontal building (e.g. on K. Gałczyński backstreet opened up in the 1950s), 3- or even 4-floor back elevations and/or stucco decorative elements in gateways, staircases or back elevations (cf. "Nowy Świat" in photographic documentation). It is probably unlikely that planning permission would be granted to (re)heighten these or other properties composing the 2-floor Nowy Świat profile, even though this is a major artery traversing the central business district, but then again, anything seems to have become possible in a post-socialist big city.

Emphasis was laid on adapting the often burnt out but solid walls of office or commercial tenements in line with



a favoured official classical (in the 1950s) or ultra modern, functional (1960s-1970s) styles. One of the earliest examples may be observed in the Polish Savings Bank on Marszałkowska adapted from the "Rosja" Insurance Company ruins in 1948-'9; one of the only buildings retaining the pre-war street alignment (cf. photographic documentation under "City Centre"). An illustration of the architectural transforming of certain public-cultural edifices can be seen in the pseudo-classical Philharmonic Hall, created out of the burnt out shell of the previous eclectic building (1900-'2, architect S. Szyller). The early-modernist projects of J. Heurich found great favour among official circles and architects in the late-1940s and 1950s; his Eagle Banking House (c.1912-'13) on the corner of Jasna and Zgoda streets was extended for state use in the same style. Another banking, office and previously residential building designed by Heurich, situated on Małachowski, formerly Evangelists' Square was taken as a model for the monumental apartment blocks lining Constitution Square (Plac Konstytucji) in the Marszałkowska Housing District (MDM). A number of street profiles were rehabilitated or redesigned, such as Mazowiecka, the western side of Czackiego (Włodzimierska), Jasna, the northern side of Widok and southern side of J. Górski (Hortensja) streets, although outbuildings were on the whole partially or totally removed to open up inner parts of street blocks; a process clearly exemplified in the block designated by the 1919 property census no.237 (cf. tenement case study ). Commercial or predominately residential tenements least altered by post-war redevelopment are located on Kredytowa, Zgoda, (east-) Chmielna, as well as on the escarpment side of Nowy Świat

on Foksal, the northern side of Smolna, including Wysoka cul-de-sac, Kopernik (Copernicus), Tamka and Okólnik streets.

To the north of Saxon Gardens little more than tenement cells or small enclaves have been salvaged from the mainly burned-out urban fabric and unrealised post-war concepts for Warsaw's representative quarter (formerly *arrondissement* XII). The wasted planning opportunities for Victory (historically Saxon), Theatre, Bank, Krasin'ski and Iron Gate (Żelazna Brama) squares has been lamented by many a post-war Polish architect and journalist. Today, in the wake of uncompromising "stalinist" moves in preparation for monumental concepts never to materialise beyond grandiose projects recorded for posterity on paper and post-1956 compromises or procrastination, these public spaces function as little more than traffic arteries. It would seem unlikely that private enterprise could prove capable or even willing to try and muster the necessary financial weight to make any significant impact on the present, decidedly anti-urban situation.

Krakowskie Przedmieście at least has preserved its representative appearance, although the late-19th. or early-20th. century tenements were subjected to similar measures as those applied on Nowy Świat; also on Trębecka, Bednarska, Senatorska, Miodowa and Długa streets. Tenement cells are situated on Fredro (Count Kotzebue), Niecała and behind Senatorska streets.

LANDSCAPE UNITS AND TENEMENT CELLS IN THE WESTERN DISTRICTS  
Although perhaps somewhat neglected by the municipal authorities until the 1980s, it was generally accepted that the southern-central quarters were to be integrated

into the post-war urban structure. According to the Five Year Plan of 1950-'54, the western Mid-Town districts, having suffered far more extensive wartime damage, were to be entirely redeveloped, apart from individual public or sacral buildings. As early as 1948 Witkowski Square and its immediate environs were cleared to make way for the "Polish Word" state printing house. An extensive belt lying between Zelazna and Towarowa-Okopowa streets, stretching from Jerusalem Avenue as far as Powązki RC Cemetery some 3km to the north, was designated a green area to separate the new centre from the industrial district of Wola where entirely new state-owned plants or former private factories were located. The urban landscape of Towarowa (VI), Mirów (VII) and Grzybów (VIII) *arrondissements* underwent far-reaching alterations from the early 1950s. Total urban clearance was carried through in the Defilad Square undertaking, "Grzybów" housing scheme replacing after 1964 the still operating Pocieją Market, culminating in the Za Zelazna Brama housing estate raised after 1965 on the site of Zelazna Brama Square and quarter, extending westwards along the old Saxon Axis as far as Zelazna Street. So-called proletarian tenement housing was cleared in the 1960s and 1970s on west-Chmielna, Twarda, Pańska and Grzybowska streets (cf. photographic documentation under "Demolition"). Urban clearance was also effected to the west of Zelazna Street, but the envisaged parkland never laid out. The resulting urban desolation combined with the remaining residents' somewhat infamous reputation has earned the area lying behind the Palace of Culture and Science the popular name of "The Wild West".

In 1990 Jewish-American businessmen approached the

City Council with a scheme involving the renovation of some of the already rundown Za Żelazną Bramą apartment blocks and pulling down of others to make way for new housing designed for Polish-Jewish, Jewish or American old-age pensioners. This concept, apart from provoking some sensation among the Polish mass media, came to nothing, but the blocks are undergoing some repairs, at least on their groundfloors as shops and small businesses begin to set themselves up in an area which, as an article in the now non-existent weekly *Stolica* once declared, is beginning to become reintegrated into the city centre rather than just constituting a housing estate.(---).

Empirical research in this region is limited to small, dispersed units, the greatest single concentration being situated in the ex-Towarowa district: street block 137 (cf. tenement house case study "Sienna 88/ "); also in blocks 140, 132 and 130; the Norblin metal foundry and nearby artisan tenement housing on Łucka Street; tenement groups fronting Waliców and Ciepła streets; the partially preserved Żelazna Street profile extending northwards into former Mirów district (cf. photographic documentation under "The Western Districts").

In ex-Grzybów *arrondissement*, once lying at the heart of the "tenement-barracks city", smaller enclaves have come through to our own times: the Nożyk communal synagogue, 4 houses on Próźna Street, 2 houses on Grzybów Square amounting to leftbank Jewish Warsaw's urban-architectural heritage; small groups or individual tenement property cells behind the "Palace" on Śliska, Sienna, Żłota and Chmielna streets, including the "proletarian aristocratic" corner tenement at the crossroads of Żłota and Żelazna streets (Land Registry no. 5863; refer to tenement house

case studies in this chapter).

Only individual or groups of 2 or 3 tenement cells still stand in Mirów. Apart from Zelazna, the most recognisable street profile is represented by Elektoralna and Chłodna extension, although this bares very little resemblance to the densely built-up and busy thoroughfare of pre-war times.

THE NORTHERN MID-TOWN DISTRICTS

This urban region, taken up by the northwestern, ethnically Jewish and mediaeval districts (*arrondissements* I-V) is virtually devoid of building forms predating the Second World War. The Old Town and to a far lesser degree the New Town have, of course, been rebuilt, in numerous cases successfully adapting fragments of authentic Gothic walls or Renaissance and Baroque ornamentation, but the present, quaint streets of "historic" Warsaw amount to a rationalised reshaping of the former mediaeval quarter which had evolved organically over centuries and was considerably more densely built up; particularly from the back. The same discontinuity in urban morphological evolution also exists in the nevertheless highly commendable reconstructed historic cores of Nüremberg, compared with fortunately unspoiled Stralsund; Wrocław (Breslau), compared to Kraków and especially Gdańsk (Danzig) which now possesses a reconstructed Main City that, beyond key individual landmarks, would be virtually unrecognisable to W. Geisler. In the often-cited case of Old Warsaw's restoration, the demolishing of houses fronting the eastern side of Podwale Street to permit the recreation of the city's mediaeval walls, applying genuine Gothic bricks transported from the ruins of Wrocław and

Elblag (Elbing), while proving visually effective, may be justifiably interpreted as a falsification rather than a preservation of the historic urban fabric. In the New Town, apart from a small number of accurately conserved and partially reconstructed 18th-century town houses, as well as the inevitable Catholic temples, the restorers did not even attempt to retain the original street alignments of Zakroczymska, Przyrynek and the Market Square itself.

A tiny group of single tenement or industrial property cells has survived at the far western end of Muranów, but these cannot be considered characteristic of tenement building forms taking shape upto the First World War in Leszno, Nalewki and Okopowa ex-municipal districts. Investigation of this part of the urban landscape, eradicated from April 1943, must be based entirely on documentary, cartographic and photographic sources (cf. Chapter 12).

Tenement case studies (1989-1991)

The following series of field studies has been based on selected building ensembles/tenements dating from the 1864-1914 period and preserved in a redeveloped or unaltered state since the 1939-1945 war. In order to maintain an uninterrupted research sequence, data has been collected and presented according to the format of property inventory charts issued to census collectors during the property survey of 1919. These charts facilitate the simultaneous presentation of the tenement's external layout and internal plan.

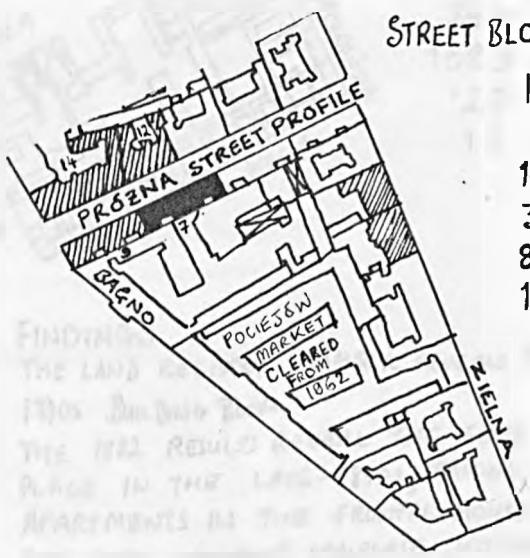
The data gathered is compared with statistics recorded in 1919 for properties grouped in the relevant street block, the mean number of apartments in properties, rooms in apartments and residents in both properties and rooms. In cases where the tenement under investigation had already been raised before 1882, the number of apartments and residents recorded by the One-Day Census of that year has also been taken into account. The value of such findings to urban form analysis is considered in the thesis conclusion.

A. PRÓZNA 7/1081D

A Building defined according to its main functions; eg residential/house, factory, warehouse, stable, washhouse, etcetera	B Situation of residential buildings; eg frontal or side-building, outbuilding raised parallel to street etc.	C Building materials; stone, brick, concrete, timber frame or wood?	D Material of roof?	E Ground-floor and no. of upper storeys	F Number of separate apartments			
					in attics	in basements	on ground level	
I Residential	frontal	brick	TIN	6 + 3	✓	✓	18	
II								
III								
IV								
V								
VI								
down to:								
VII								
Total								18



1882: 17 flats and 63 residents



STREET BLOCK 183 (in 1919):

14 DEVELOPED PROPERTIES WITH MEAN NUMBERS OF:

- 16.4 habitable apartments
- 3.3 rooms per apartment
- 87.6 residents per property
- 1.6 residents per room

PLOT 1081D demarcated before 1875 in connection with the laying out of NOWOPRÓZNA Street extension; developed thereafter. The tenement was not extended

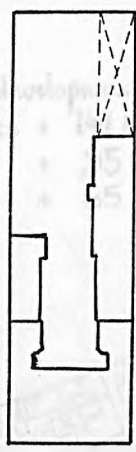
FINDINGS:

FLATS ON FLOORS 1, 2 & 3 WITH ADDRESSES 1-6 HAVE BEEN SUBDIVIDED INTO 1A-B, 2A-B, 3A-B-C, 4A-B-C, 5A-B-C AND 6A-B. THREE ADDITIONAL FLATS NUMBERED '35', '36' & '37' ARE ENTERED FROM ONE OF TWO SERVANTS' STAIRCASES. THE G MAIN APARTMENTS ENTERED BY THE CENTRAL, LARGER STAIRCASE MAY HAVE BEEN SUBDIVIDED BEFORE 1939, BUT WERE PROBABLY SUBPARTITIONED AFTER 1945. SHOPKEEPERS WOULD HAVE INHABITED THE BALKS OF THEIR COMMERCIAL PREMISES ON THE GROUND FLOOR. SHOPS STILL FUNCTION DEALING IN IRONWARE, DOMESTIC PRODUCTS ETC - CONTINUITY OF FUNCTIONS, BUT SHOP PROPRIETORS NO LONGER LIVE "AT THE BACK" OF THEIR PREMISES. THE CONTINUITY SUGGESTED BY 1882 AND 1919 STATISTICS IS POSSIBLY DECEPTIVE, HIDING HUGE CHANGES IN SOCIAL STRUCTURE, SINCE 1945; AND ETHNIC COMPOSITION, SINCE PRÓZNA WAS INHABITED ALMOST EXCLUSIVELY BY JEWISH FAMILIES BEFORE 1942/3.

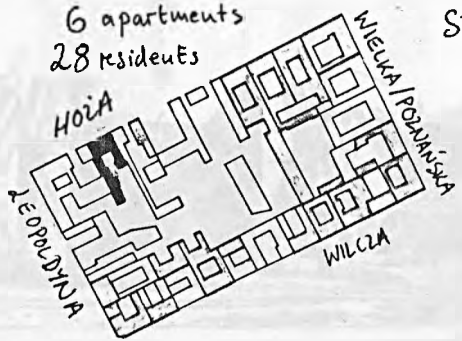


B. HOZA 57/5106

A	B	C	D	E	F		
					Number of separate apartments	in attics	in basements
Building defined according to its main functions; eg residential/house, factory, warehouse, stable, washhouse, etcetera	Situation of residential buildings; eg front a l- or side-building, outbuilding raised parallel to street etc.	Building materials; stone, brick, concrete, timber frame or wood?	Material of roof?	Ground-floor and no. of upper storeys			
I residential	frontal house	brick & stone	tin	G+3			7 7
II residential	side building	brick-plastered	"	G+4			3 3
III residential	"palatial" outhouse	stone & brick	"	G+1			4 4
IV residential + gnd. floor workshop	side building	brick-plastered	"	G+4			9 9
V							
VI							
down to:							
down to:							
					Total		23 23



1882:  
6 apartments  
28 residents



STREET BLOCK 267  
28 DEVELOPED PROPERTIES WITH MEAN NUMBERS OF:  
24.4 habitable apartments  
108.3 residents  
2.8 rooms per apartment  
1.5 persons to a room

**FINDINGS**  
THE LAND REGISTRY NUMBER REVEALS THIS PLOT WAS DEMARCATED DURING THE 1870s BUILDING BOOM.  
THE 1882 RESULTS REVEAL THE FIRST STAGE IN TENEMENT DEVELOPMENT TOOK PLACE IN THE LATE-1870s, TAKING THE FORM OF AFFLUENT RESIDENTS' APARTMENTS IN THE FRONTAL HOUSE WITH SIDE WINGS ON THE COURTYARD SIDE WITH SERVANTS' STAIRCASE, KITCHEN ETC.  
ARTICULATION IS WELL ACCENTED: WEALTHIEST TENANTS ON 1ST. FLOOR (WITH BALCONY), AS WELL AS 2ND. FLOOR; 3RD. FLOOR MORE MODEST, LOWER CEILINGS, ALSO THE FIRST SUBJECTED TO SUBDIVIDING DURING "TENEMENTISATION" IN THE '90s, WHEN OUTBUILDINGS WERE EXTENDED AND HEIGHTENED TO 4 FLOORS.  
THE 1-FLOOR "PALATIAL" OUTHOUSE, PERPENDICULARLY SITUATED TO THE FRONTAL HOUSE IS INTERPRETED AS A REFLEXION OF M-C DESIRE TO MIMIC NOBLE-ARISTOCRATIC TRADITIONS. A MODEST BUILDING BUT SUMPTUOUSLY ORNAMENTED; EG MARBLE STAIRCASE COMPARED TO STANDARD (IN 1860s-1870s)

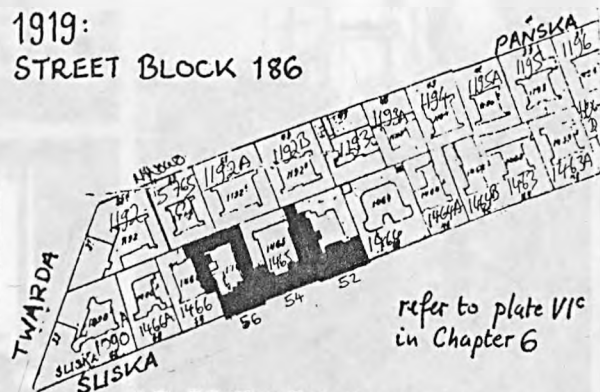
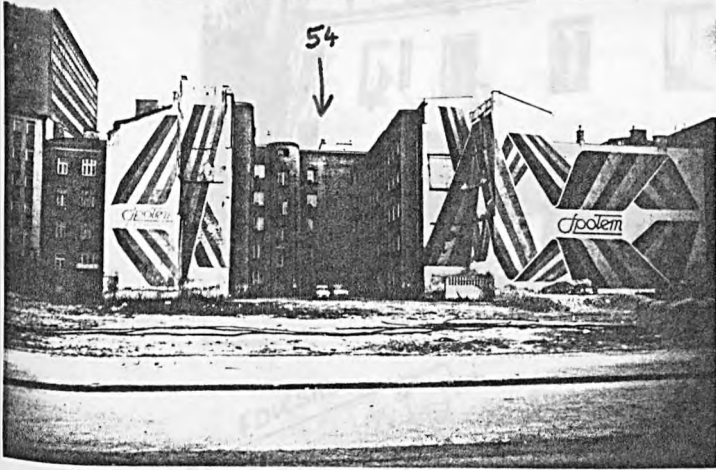
C. SLISKA 52/1464C, 54/1465 and 56/1465A

(data selected for Sliska 54 only)

A	B	C	D	E	F
Building defined according to its main functions; eg residential/house, factory, warehouse, stable, washhouse, etcetera	Situation of residential buildings; eg front al- or side-building, outbuilding raised parallel to street etc.	Building materials; stone, brick, concrete, timber frame or wood?	Material of roof?	Ground-floor and no. of upper storeys	Number of separate apartments in attics in basements on ground- & upper floors total number per building
I Residential	Frontal house	brick	tin/wood	G + 4	20 20
II Residential	Sidebuilding	"	" / "	G + 4	7 7
III Residential	Sidebuilding	"	" / "	G + 4	7 7
IV					
V					
VI					
known to:					
VII					
Total					20 20



1882:  
 1464C in course of development? (1 flat)  
 1465 23 apartments + 141 residents  
 1465A 19 " + 95 "  
 (1466 16 " + 65 " )



25 DEVELOPED PROPERTIES WITH MEAN RECORDINGS OF:  
 41.3 habitable apartments  
 2.4 rooms per apartment  
 223.1 inhabitants per property  
 2.3 inhabitants per room

NOTE: THE ENTIRE BLOCK HAD BEEN BUILT-UP LARGELY IN THE 1870S (3-FLOOR), SUPPLEMENTED IN THE 1890S (INDIVIDUAL 4-FLOOR, SOME HEIGHTENING). FACADES HAVE BEEN REMODELLED SINCE 1945, BUT THESE ARE THE ORIGINAL BUILDING FORMS REPRESENTATIVE OF THIS PART OF THE MID-TOWN AND THE ERA THEY WERE PUT UP IN.

IT HAS BEEN CALCULATED THAT WITHIN PROPERTIES GROUPED IN STREET BLOCK 186, OCCUPYING AN AREA OF 1.9 HECTARES, MORE THAN 5 1/2 THOUSAND PEOPLE WOULD HAVE BEEN RESIDING BY THE LATE-19TH. CENTURY: ie 3000 PEOPLE PER HECTARE. ADDITIONAL SUBBUILDINGS OR VERTICAL EXTENSION IN NOS. 52 & 54 MAY HAVE OCCURRED BETWEEN 1882 & 1914/19, BUT IT IS MOST LIKELY THAT APARTMENTS WOULD HAVE BEEN SUB-DIVIDED TO ACCOMMODATE A TWO- OR THREEFOLD INCREASE IN THE NUMBER OF TENANTS UPTO W.W. I (cf BRDZISOW TENEMENT DISTRICT, T-7 IN CHAPTER 6)

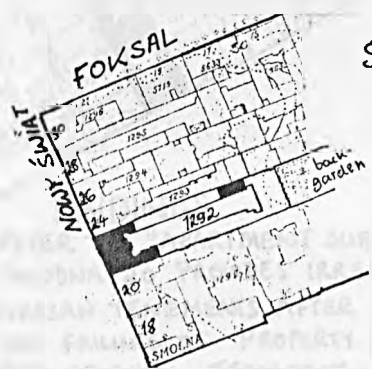
FINDINGS: CORRIDORS FOLLOW BACK OF FRONTAL HOUSE, LEADING TO 4 FLATS ON LOWER (1ST & 2ND FLOOR) LEVELS + 5 FLATS ON UPPER (3RD, 4TH FLOOR) LEVELS. ORIGINALLY, THESE CORRIDORS WERE THE HALLWAYS OF CONSIDERABLY LARGER APARTMENTS (SUBDIVIDED FROM 1880S/1890S - REDUPT. OF PROPERTY?) IN 1940S POSSIBLY FURTHER SUBDIVISION WHERE FRONTAL HOUSE FLATS HAD NOT BEEN PREVIOUSLY BROKEN UP IN SMALLER DWELLING UNITS. REFLEXION OF SOCIAL CHANGES IN THIS PART OF THE CITY 1870S - 1914 + AFTER. BACK BUILDING DESTROYED. NO. 52 UNDER RENOVATION (8.1990)

D. NOWY ŚWIAT 22/1292

A	B	C	D	E	F				
					Number of separate apartments	in attics	in basements on ground & upper floors	Total number	
Building defined according to its main functions; eg residential/house, factory, warehouse, stable, washhouse, etcetera	Situation of residential buildings; eg frontal or side-building, outbuilding raised parallel to street etc.	Building materials; stone, brick, concrete, timber frame or wood?	Material of roof?	Ground-floor and no. of upper storeys					
I Residential	frontal house	Brick & stone	metal sheets	G+3	3		6	9	
II Residential/commercial	sidebuilding	Brick	" "	G+1			2	2	
III Residential/commercial	sidebuilding	Brick	" "	G+1			1	1	
IV									
V									
VI									
down to:									
XII									
					Total	3		9	12



1882:  
30 apartments; 113 residents



STREET BLOCK 253

- 71 DEVELOPED PROPERTIES WITH MEAN NUMBERS OF:
- 26.0 habitable apartments
- 110.4 residents
- 2.8 rooms per apartment
- 1.5 residents to a room

(cf. plate V<sup>b</sup> in Chapter 5)

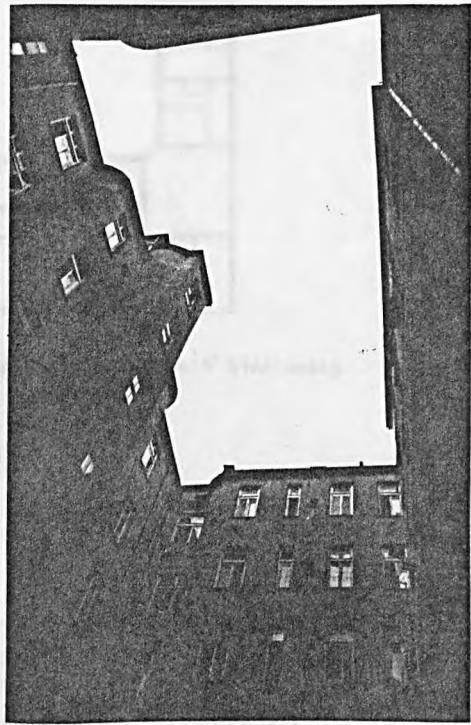
FINDINGS

THE "STREET BLOCK" AREA, INCORPORATING PROPERTIES BELOW THE ESCARPMENT IN POWISŁE, IS TOO GREAT TO RELIABLY RECORD BUILDING CHARACTERISTICS AND HOUSING DENSITIES IN INDIVIDUAL TENEMENTS. ALREADY BY THE 1880S NOWY ŚWIAT 22/1292 HAD BEEN DEVELOPED AT VERY HIGH DENSITY; A THIRD FLOOR ADDED TO THE ORIGINAL TOWN HOUSE AND EXTENSION OF OUTBUILDINGS, OF WHICH SMALL VESTIGES REMAIN; THESE ONLY PARTLY RELATING TO THE FORMER BUILDING LAYOUT. COMMERCIAL USES COMPLETELY DOMINATE ON THE GROUND FLOOR AS WELL AS 1ST. UPPER LEVEL OF THE FRONTAL HOUSE WHICH WAS LOWERED BY TWO STOREYS FROM THE BACK & 3 FROM THE STREET.

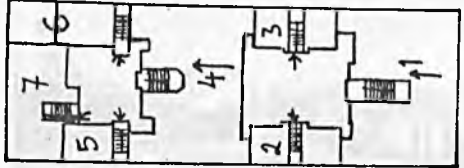


# E. CHŁODNA 20/770

A	B	C	D	E	F		
					Number of separate apartm <sup>ts</sup>	in attics	in basement, on ground- & upper floors
I Residential	frontal house	stone + brick	tin	G + 4	/	/	35 35
II Residential	sidebuilding 1	brick	"	G + 4	/	/	8 8
III "	sidebuilding 2	brick	"	G + 4	/	/	8 8
IV "	1st. backbuilding	stone + brick	"	G + 4	/	/	19 19
V "	sidebuilding 3	brick	"	G + 4	3	/	16 19
VI "	sidebuilding 4	"	"	G + 4	3	/	14 17
VII "	2nd. backbuilding	"	"	G + 4	2	/	12 14
VIII							
					Total	8	107 115



1882: 20 apartments & 96 residents



The 2nd. courtyard/"Hinterhof"

## STREET BLOCK 174 (cf plate VIb in Chapter 6)

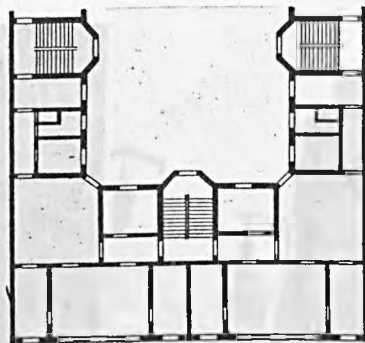
- 30 DEVELOPED PROPERTIES WITH MEAN NUMBERS OF:
- 30.0 habitable apartments
- 140.6 residents
- 3.2 rooms per apartment
- 1.5 persons to a room



### FINDINGS

REFER TO "APARTMENT SUBDIVISIONS IN TENEMENT HOUSING" AND PLATE 8<sup>b</sup> IN CHAPTER 10. CHŁODNA 20 PROVIDES IRREFUTABLE EVIDENCE OF THE EXTENSIVE SUB-DIVIDING OF WARSAW TENEMENTS AFTER 1882 IN RESPONSE TO RAPID DEMOGRAPHIC INCREASE AND THE FAILURE OF PROPERTY DEVELOPMENT TO KEEP APACE. THE ORIGINAL TENEMENT (1870s) WOULD HAVE BEEN EXTENDED (2ND COURTYARD BUILDINGS AND A 4TH. FLOOR) IN THE 1890s WITH A NEW, ECCLECTIC FACADE. WEALTHIER INHABITANTS OCCUPIED THE FRONTAL HOUSE, A 2ND LEVEL OF THE SOCIAL HIERARCHY RENTING APARTMENTS IN THE 1ST. OUTHOUSE; BOTH SETS OF DWELLINGS WERE SERVED BY A MAIN STAIRCASE AND SUBSIDIARY BACK FLIGHT OF STAIRS IN SIDEBUILDINGS FOR SERVANTS. SUBDIVIDING MAY HAVE OCCURED ONLY AFTER 1904 WHEN RENTS SOARED AND THE POPULATION AGAIN BEGAN TO RISE DRAMATICALLY AFTER SLIGHT DECLINE IN 1905-'7. ANY "BOURGEOIS" FLATS STILL NOT SUBPARCELLED IN 1945 WERE DIVIDED UP; THE SERVANTS' STAIRCASES HAVE BECOME INDEPENDENT ENTRANCE/ACCESS POINTS, SHOR ON GROUNDROOF

A	B	C	D	E	F		
					Number of separate apartm <sup>ts</sup>	in attics	in basements
Building defined according to its main functions; eg residential/house, factory, warehouse, stable, washhouse, etcetera	Situation of residential buildings; eg front a l- or side-building, outbuilding raised parallel to street etc.	Building materials; stone, brick, concrete, timber frame or wood?	Material of roof?	Ground-floor and no. of upper storeys	on ground	in upper floors	per building
I Residential	Frontal house	Brick & stone	Tin	G + 4	3	3	3
II Residential	Sidebuilding	ditto	"	G + 4	5	5	5
III Residential	Sidebuilding	ditto	"	G + 4	7	7	7
IV Residential	Backbuilding			G + 4	10	10	10
					Total	25	25



frontal house with servants' staircases

STREET BLOCK 340 (1919)



24 DEVELOPED PROPERTIES  
COMPOSED OF MEAN NOS. OF:

- 19.4 habitable apartments;  
accommodating
- 86.7 residents ;
- with
- 4.4 rooms per apartment
- 1.0 residents to a room

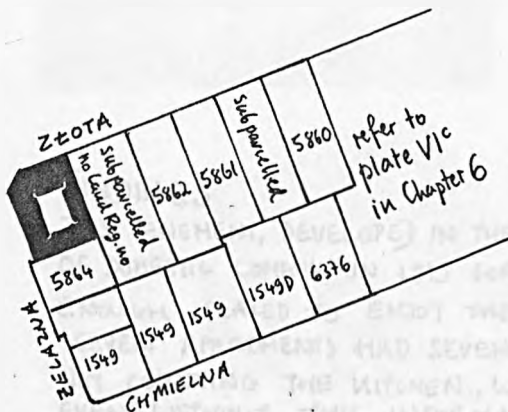
**FINDINGS**

PLOT 1724E WAS NOT DEMARCATED BEFORE 1882  
 THE TENEMENT WAS RAISED PROBABLY IN OR AROUND 1893.  
 STREET BLOCK STATISTICS DIVIDED BY THE NUMBER OF DEVELOPED PROPERTIES IN THIS CASE PROVIDES SOME INSIGHT INTO BUILDING CHARACTERISTICS AND HOUSING DENSITIES / DOMINANT SOCIAL STRUCTURE IN INDIVIDUAL PROPERTIES.  
 WEALTHY TENEMENT LIVING IN THE MOST AFFLUENT QUARTER OF MID-TOWN WARSAW BEFORE 1914.  
 EVEN ALLOWING FOR SERVANTS' QUARTERS AND SMALLER DWELLINGS IN BACK-TENEMENTS OR UPPER FLOORS, A HIGH MEAN RECORDING OF ROOMS TO FLATS.  
 ON 1ST, 2ND & 3RD. FLOORS 4 FLATS TO EACH LEVEL, ALTHOUGH SUBDIVISION OF OUTHOUSE FLATS IS TO BE EXPECTED.  
 GROUND FLOOR AND EVEN UPPER FLOORS OCCUPIED AT PRESENT BY SHOPS + BUSINESSES; EG "PUMA" SPORTSWEAR TAKES UP nos. 1-4; THE AUSTRIAN CONSULATE ON 2ND. FLOOR.

A	B	C	D	E	F			
					Number of separate apartments	in attics	in basements	
Building defined according to its main functions; eg residential/house, factory, warehouse, stable, washhouse, etcetera	Situation of residential buildings; eg front a l- or side-building, outbuilding raised parallel to street etc.	Building materials; stone, brick, concrete, timber frame or wood?	Material of roof?	Ground-floor and no. of upper storeys				
I Residential	frontal - Ziota side	brick-plastered	tin	G+5	2	✓	30/32	
II Residential	frontal - Zelazna side	brick - "	"	G+5	1	✓	30/31	
III Residential	back - parallel to Ziota	brick "	"	G+5	✓	✓	36/36	
IV Residential	back - parallel to	brick "	"	G+5	✓	✓	36/36	
V	Zelazna							
VI								
down to:								
XII								
					Total	3	✓	132/135



### PLOT DEMARCATED AND PROPERTY BUILT IN THE MID-1890s (after 1893)



### STREET BLOCK 196 (1919):

30 DEVELOPED PROPERTIES WITH MEAN NUMBERS:

- 37.4 habitable apartments
- 2.3 rooms per apartment
- 14.1 inhabitants (per property)
- 1.8 persons to a room

### FINDINGS

A RECOGNISED ARTISANS' TENEMENT.

ON 1ST, 2ND, & 3RD FLOORS 2-ROOM FLATS X 6 FROM EACH OF THE 4 STAIRCASES. ON 4TH AND 5TH FLOORS THE STAIRCASES OPEN ON TO AN INTERCONNECTING CORRIDOR PROVIDING ACCESS TO SINGLE-ROOM FLATS; IN FRONTAL BUILDINGS FLATS ON BOTH SIDES OF CORRIDOR, IN BACK BUILDINGS FLATS ON THE COURTYARD SIDE ONLY; IN TOTAL 50 SINGLE-ROOM APARTMENTS ON THE UPPER TWO FLOORS, EXCLUDING 3 (AT LEAST) ATTIC FLATS.

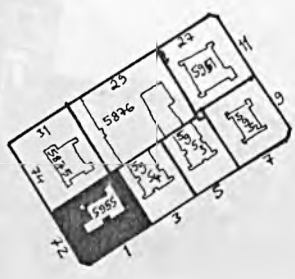
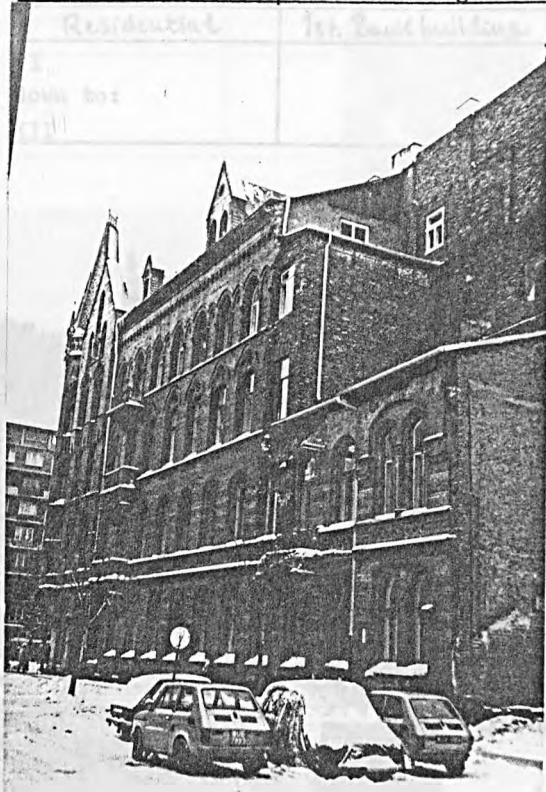
APARTMENT NUMERATION (1-135 AND 150) SUGGESTS THERE WERE ORIGINALLY 150 DWELLINGS, 15 BEING REPLACED BY UNINHABITED SHOPS ON GROUND FLOOR AND EVEN BASEMENT (FRONTAL BUILDINGS FACING ZŁOTA AND ZELAZNA ONLY).

THE STREET BLOCK DATA DOES NOT ENTIRELY RELATE TO PROPERTY 5863; PARTLY BECAUSE THIS TENEMENT WAS NOT REPRESENTATIVE OF MOST HOUSES GROUPED IN THE TERRITORIAL UNIT; MORE TYPICAL OF HOUSING IN TOWAROWA DISTRICT THAN GRZYBÓW.



H. MARSZAŁKOWSKA 72/5955

A	B	C	D	E	F			
					Number of separate apartm	in attics	in basements on ground & upper floor	
I Residential	frontal hse. Marszałk.	Brick (glazed)	tin	G+3	1	15	16	
II Residential	frontal - Sadowa side	"	"	G+3	1	15	16	
III Residential	sidebuilding	" - bare	"	G+3	1	9	9	
IV Residential	sidebuilding	" - bare	"	G+3	1	9	9	
					Total	2	48	50



STREET BLOCK 327 (1919)

7 DEVELOPED PROPERTIES WITH MEAN NUMBERS OF :

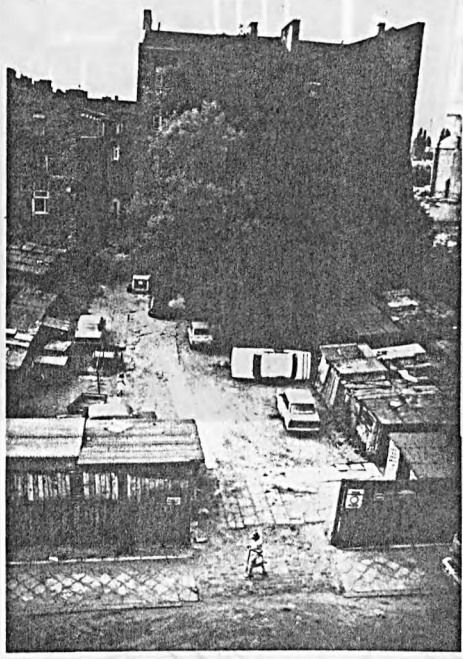
- 14.9 habitable apartments
- 68.9 residents
- 4.7 rooms per apartment
- 1.0 person to a room

FINDINGS

THIS TENEMENT, DEVELOPED IN THE MID-1890S, WAS STILL OFFERING OPTIMUM STANDARDS OF DOMESTIC COMFORT IN 1919 FOR THOSE WEALTHY ENOUGH OR SOCIALLY WELL ENOUGH PLACED TO ENJOY THE PRIVILEGE. "SEVEN APARTMENTS HAD SEVEN ROOMS EACH, A FURTHER ELEVEN HAD FIVE, NOT COUNTING THE KITCHEN, WHICH WAS 18M<sup>2</sup> IN AREA." EVEN WITHOUT THIS INFORMATION IT WOULD BE CLEAR THAT SOMETHING VERY DRAMATIC HAD OCCURRED TO THE PROPERTY'S INTERNAL PLAN AND SOCIAL STRUCTURE BETWEEN 1919 AND 1991. THE DATA AT STREET BLOCK SCALE GIVES A CLEAR INDICATION OF THE TYPE OF PROPERTY DEVELOPMENT PREVAILING, SINCE THE TENEMENTS HAVE RELATIVELY CONSISTENT GROUND FLOOR PLANS, WERE DEMARCATED AROUND THE SAME TIME (5875-'6 + 5951-'55) AND IN ALL LIKELIHOOD RAISED DURING THE SAME PERIOD (i.e. MID-TO LATE-1890S). HOWEVER, TENANTS WHO HAVE BEEN FAMILIAR WITH A HOUSE FOR LARGE PARTS OF THEIR LIVES TEND TO BE THE BEST INFORMED ABOUT ITS HISTORY: "IN 1945 ALMOST 120 FAMILIES WERE ASSIGNED ONE ROOM PER FAMILY" (MR. S. NANELA IN AN ARTICLE FOR "STOLICA", No. 40/2011 OCTOBER 1986). SHOPS ARE LOCATED AT GROUND FLOOR LEVEL IN THE MARSZAŁKOWSKA-FACING FRONTAL HOUSE, BUT ALSO IN THE COURTYARDS; E.G. MONEY EXCHANGE DESK, CHEMISTS, SHOESHOP.

J. SIENNA 88/1147T

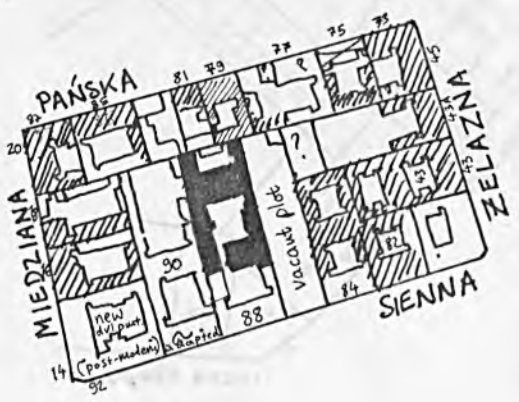
A	B	C	D	E	F			
					Number of separate apartm <sup>t</sup> s	in attics	in basements	on ground & upper floors
Building defined according to its main functions; eg residential/house, factory, warehouse, stable, washhouse, etcetera	Situation of residential buildings; eg front a l- or side-building, outbuilding raised parallel to street etc.	Building materials; stone, brick, concrete, timber frame or wood?	Material of roof?	Ground-floor and no. of upper storeys				
I Residential	Sidebuilding	brick	tarred roofing paper?	G + 3	8	2	12	22
II Residential	2nd Back building 1	brick	" (?)	G + 4	1	1	6	6
III Workshop + residential	2nd Back building 2	brick	tin	G + 2			2	2
IV Residential	Sidebuilding	brick	tarred roofing paper?	G + 3 & 5	2		10	12
V Residential	1st. Back building	brick	"	G + 5			40	40
VI								
down to:								
XII								
Total					10	2	70	82



PLOT DEMARCATED IN 1870s, DEVELOPED AFTER 1882

STREET BLOCK 137 (1919)

- 21 DEVELOPED PROPERTIES WITH MEAN RECORDINGS OF:
- 48.6 habitable apartments
- 234.2 residents
- AND: 2
- 2.4 rooms per apartment
- 2.1 persons to a room

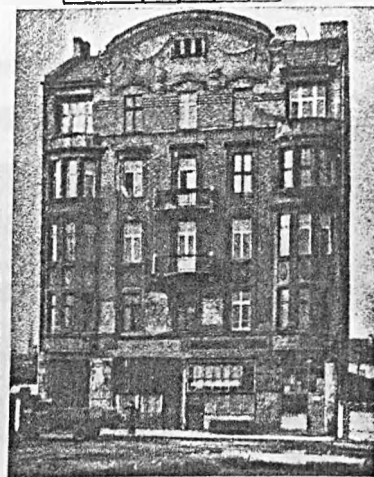


**FINDINGS** : PREVIOUS APARTMENT NUMERATION (STILL VISIBLE ON DOORS) SUGGESTS THERE WERE c200 FLATS BEFORE 1939. THE FRONTAL HOUSE (PROBABLY 3-FLOOR, DEVELOPED IN 1890s) WAS DESTROYED 1939/45, WHILE THE 2ND. BACK BUILDING APPARENTLY LOST ITS UPPER STOREY 4 STAIRCASES LEADING TO FLATS OF VARIOUS SIZES ; eg IN THE MANSARD-ROOF SIDEBUILDING THERE ARE 2 APARTMENTS BEHIND EACH DOORWAY (74/75, 76/77) ON 1ST. FLOOR, BUT 4 APARTMENTS IN THE ATTIC (84/85/86/87 & 88-91). THUS, EVEN THOUGH THIS PROPERTY, LIKE MOST OF THOSE IN STREET BLOCK 137, WERE ARTISANAL-WORKING CLASS, THERE ~~was~~ IS EVIDENCE OF SOCIAL SEGREGATION BETWEEN FLOORS. THE NON-EXTANT FRONTAL HOUSE WOULD HAVE ACCOMMODATED HIGHER-INCOME-BRACKET TENANTS ; EVEN WITH SERVANTS' STAIRCASES ENTERED FROM THE 1ST, NOW OPEN COURTYARD. THE 2ND LEVEL IN SOCIAL HIERARCHY IS REPRESENTED BY THE 1ST, STILL EXTANT OUTHOUSE WITH 4 APARTMENTS AND OWN ENTRANCES ON EACH FLOOR (102-121). MOST CROWDED, INEVITABLY, WERE BASEMENTS AND UPPER MOST LEVELS, AS WELL AS BACKBUILDINGS 1+2.

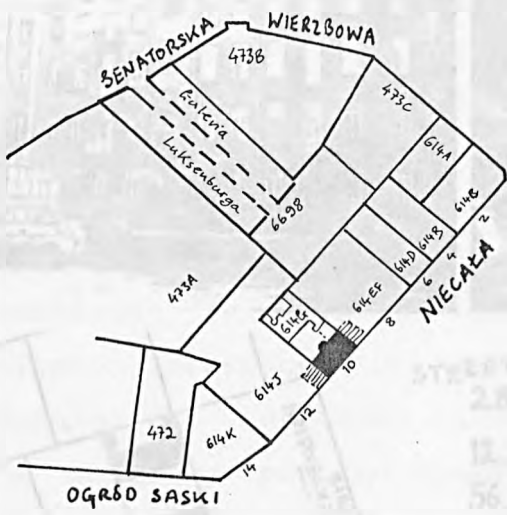


# K. NIECAŁA 10/614G

A	B	C	D	E	F		
					Number of separate apartments	in attics	in basements on ground & upper floors
Building defined according to its main functions; eg residential/warehouse, factory, warehouse, stable, washhouse, etcetera	Situation of residential buildings; eg frontal or side-building, outbuilding raised parallel to street etc.	Building materials; stone, brick, concrete, timber frame or wood?	Material of roof?	Ground-floor and no. of upper storeys			
I Residential	frontal house	concrete & brick	tin	Gr + 4	(1)	16	17
II							
III							
IV							
V							
VI							
down to:							
VII							
Total					1	16	17



Dom przy ul. Alberta 10 ocalał. W lokalu oznaczonym X mieściła się księgarnia Prackiego i Łazowskiego i antykwariat „Pod Białym Krukiem”.

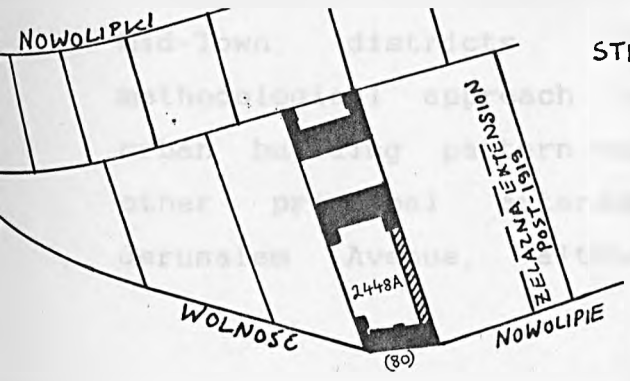


STREET BLOCK 298 (1919):  
 13 DEVELOPED PROPERTIES WITH MEAN NUMBERS OF:  
 18.7 habitable apartments  
 70.8 residents  
 3.6 rooms per apartment  
 1.1 persons to a room

**FINDINGS**  
 NIECAŁA WAS LAID-OUT IN THE 1850s; AN ELEGANT, RESIDENTIAL STREET LEADING TO THE SAXON GARDENS.  
 PLOT 614G WAS NOT DEVELOPED UNTIL AFTER 1882; A TENEMENT BACKBUILDING BEHIND LOW FRONTAL BUILDING (PRE-1882 NON-RESIDENTIAL) THE NEW TENEMENT COMES FROM AFTER 1910 (UNMARKED ON THE BASEPLAN) AND SURVIVED THE WAR, BUT HAS BEEN REDVLFD.  
 APARTMENTS WERE STILL EXPANSIVE IN THIS PART OF THE CITY EVEN IN 1919. NIECAŁA 10 ORIGINALLY WOULD HAVE CONSISTED OF 6 MULTI-ROOM FLATS ON THE 1ST., 2ND. & 3RD. FLOORS WITH 3 SMALLER FLATS ON THE 4TH. FLOOR AND 1 ATTIC DWELLING.  
 AT PRESENT 1ST., 2ND & 3RD. FLOOR APARTMENTS ARE UP TO 4 TIMES SMALLER, ALTHOUGH SOME APPARENTLY CONNECT WITH NEW DWELLINGS IN AN 8-STORY HOUSING BLOCK ENCASING THE TENEMENT.

# L. WOLNOŚĆ 2A (formerly NOWOLIPIE 80/2448A)

A	B	C	D	E	F		
					Number of separate apartments	in attics	in basements
Building defined according to its main functions; eg residential/house, factory, warehouse, stable, washhouse, etcetera	Situation of residential buildings; eg front a l- or side-building, outbuilding raised parallel to street etc.	Building materials; stone, brick, concrete, timber frame or wood?	Material of roof?	Ground-floor and no. of upper storeys			
I Residential	Frontal house	brick & concrete	tin	G + 4	/	/	50 50
II Workshop + flats	1st. back building	brick	tin	G + 3	/	/	20 20
III Small factory + flats	2nd. back building	brick	tin	G + 2	/	/	10 10
IV							
V							
VI down to:							
XII							
Total					/	/	80 80



STREET BLOCK 75 (1919) - cf plate VI<sup>b</sup> in Chapter 6  
 28 DEVELOPED PROPERTIES WITH MEAN NUMBERS OF:  
 12.3 apartments (partially inhabited or inhabited)  
 56.4 residents  
 2.6 rooms per apartment  
 1.8 residents to a room



FINDINGS: MIXED INDUSTRIAL & RESIDENTIAL TYPE  
 THIS EARLY-20TH-CENTURY TENEMENT WAS ENTIRELY OUT OF KEEPING WITH THE MAJORITY OF PROPERTY DEVELOPMENTS GROUPED IN BLOCK 75 AND IS SYMPTOMATIC OF A GRADUAL REPLACEMENT OF PERIPHERAL, LOW & PARTIALLY WOODEN BUILDING FROM THIS TIME (NEVER COMPLETE).  
 THE RELATIONSHIP OF BUILDING HEIGHT TO DEPTH IN PLOT AS WELL AS OF APARTMENTS TO FLOOR LEVEL (CONSISTENTLY 10 IN EACH BUILDING) IS ALMOST TOO REGULAR TO BE TRUE.

### Introducing street profile analysis

The historian S. Herbst conducted his own solitary research of Warsaw's 19th. and early-20th. century building forms. Apart from being interested in their architectural histories, he placed the properties investigated with their building histories and the social histories of their owners, or in certain cases their tenants, in the context of the evolving profile of Marszałkowska Street. He argued strongly in favour of researching evolving urban landscape patterns through the analysis of changing building forms, functional activities and social-class structure in "linear groups" of properties following the street's growth axis. He regarded the street block as a territorial unit:

"(...)not suited to this kind of research, since it creates units from such contrasting elements as specific "frontages", frontage ensembles and inner street block areas, thereby breaking up linear groups."

In the absence, however, of extensive building and social data it is probably impossible under present circumstances to achieve the same kind of synthetic study of the more important streets of Mid-Town Warsaw as Herbst was able to do up to 1944 with Marszałkowska Street; a veritable thermometer for measuring urban landscape and social-class composition in relation to the central and southern Mid-Town districts (cf. plate XIc). Herbst's methodological approach to researching part of the inner urban building pattern could have been applied equally to other principal arteries of inner-leftbank Warsaw: Jerusalem Avenue, although separating the southern

*arrondissements* from the western and central districts; Zelazna Street providing a cross-section through the western Mid-Town; the east-west lines of Leszno, Nowolipie, Nowolipki or Gęsia streets, as well as Nalewki high street (cf. Fig. 3.22 in Chapter 12). Although cells and smaller landscape units have been retained on some of these streets, these prospective studies, would demand a wideflung, time-consuming search for data which very possibly no longer exists, and/or extensive reference to the real-estate files housed in the Land Registry Office (refer back to "Primary Sources" in the introduction).

Recognising the potential advantages of this alternative methodological approach to researching the inner urban physical structure, a street case study has been selected in which substantial elements of the pre-war profile, including outbuildings as well as frontal houses, have been preserved.



## IMAGING SERVICES NORTH

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Figure 3.B: East-Chmielna Street /1925/  
scale 1: 2500



### Chmielna Street Profile

The most practical starting point for this study is at the intersection of Chmielna Street, directing urban development in this part of the Mid-Town westwards, with Nowy Świat, forming part of the traditional North-South growth axis of the Royal Route. Following the southern line of the future Chmielna, farmland referred to up to the 18th. century as the "Sokołowszczyzna" stretched from the Royal Route in a comparatively narrow strip to the rural boundary between Warsaw and Wola. A fieldroad thus arose stretching some 3 km to the West as far as Karolkowa Street, although a narrow street linking Nowy Świat with Bracka-Szpitalna service road already operated prior to the town planning activities of M. Deutsch in the 1770s (cf. Fig. 2.9 in Chapter 6). The street name, derived from the Polish word for "hops" ("chmiel") would seem to suggest the kind of farming specialisation carried out in this area prior to urbanisation, although a garden behind Nowy Świat belonging to the Mazovian dukes and known as the "Hop-Garden" (*Chmielnik*) already existed in the 16th. century.<sup>302</sup>

The Sokołowszczyzna, registered in 1743 as belonging to the Crown Marshal Franciszek Bieliński (cf. CBD-A inner core district in Chapter 5) and returning a substantial annual tax of 36 złotych 24 groszy, still presumably stretched as far as Wola. Plot parcellisation occurred in the later half of the 18th. century (Land Registry numbers 1550-1565), leaving a property parcel some 150m in depth at the southern intersection of Chmielna and Nowy Świat, designated Land Registry number 1260. The original farmland's limits can still be traced in the consistent



depth of plots (c. 50m) on the southern, odd-numbered side of modern Chmielna street; e.g. the storage depot at the crossroads of Zelazna Street (Chmielna 75/1551). During the laying of tracks for the Warsaw-Vienna Railroad the street was shortened to its convergence with Twarda (now Krajowej Rady Narodowej) Street, just over 2 km west of Nowy Świat).

The original farmhouse and subsidiary buildings were located on Bracka rather than Nowy Świat streets (de Tirregaille 1:6690 scaleplan of 1762). The first erections at the Nowy Świat end, and inevitably fronting the main thoroughfare rather than the side-street service road, representing the earliest building phase in the history of plot 1260, came from the early- or mid-1700s. These would have consisted of a manor house and its service outbuildings; the revealing "Schemat" ("schema") survey of Warsaw properties in 1790 listed a "wooden house with garret" and a "stone-brick orangery in the garden" belonging to a Szymon Manugiewicz; in all likelihood a merchant.<sup>303</sup> The enormous impact of political changes between 1792 and 1813 with their socio-economic implications would appear to have not immediately affected this property, registered in 1815 as still belonging to Manugiewicz. It was in the new era ushered in by the Congress of Vienna and establishing of home rule in Poland, which among other things laid great emphasis on making the government seat a city of stone-brick rather than largely-wooden building; particularly along "representative" streets such as Nowy Świat, that significant changes were to be brought about in building plot 1260. The property register of 1819 records that already the manor house had been replaced by:



460

"A stone house, one floor high from the street newly under construction, not completed, in the garden a 'trepauz' containing lodging, also of permanent materials".<sup>304</sup>

The town house stage in the developing of property 1260

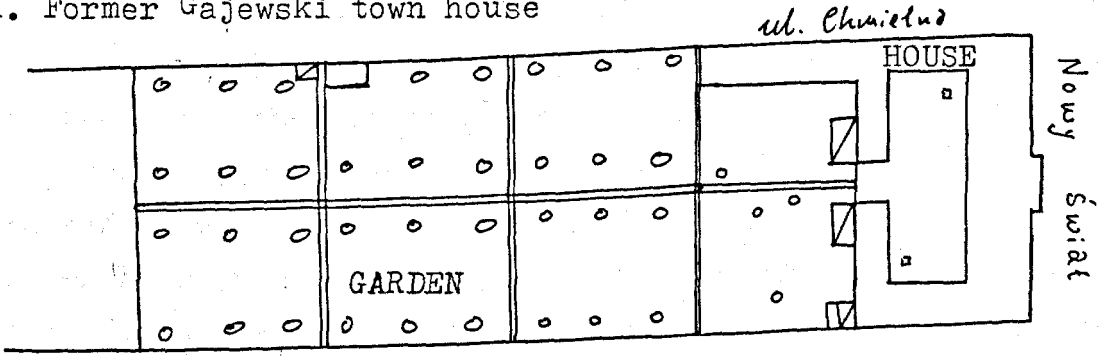
"Trepauz" is a Polish rendition of a German word; in all likelihood "Treppenhaus" which means staircase. If this be the case, the entry in the 1819 property register for 1260 should be read not "in" but "from" the garden; i.e. a (second) staircase leading to lodgings could be reached by entering the garden via the main gateway from Nowy Świat (cf. diagram A in Fig. 3.14). These "lodgings" would have been located in the outbuilding facing Chmielna Street, extended in the late 1820s or possibly in the 1830s and remaining to this day under the address Chmielna 1/3 (cf. photographic documentation "Chmielna Street Profile"). The frontal house, on the other hand, was to survive barely 30 years before its partial demolition, producing an unusual configuration of buildings at the corner of Chmielna and Nowy Świat, which has also - quite by accident - come down to modern times, if in a slightly altered form.

In the first and oldest volumes of real-estate registers for property 1260, apart from a very detailed builders' estimate for the Gajewski house, signed by the probable architect, there are documents and, what is more, geometric plans pertaining to the property's subpartition around 1853. In this year, or immediately afterwards, part of property 1260, including just over half of the house's Nowy Świat frontage, was sold to the industrialist

Figure 3.14 : Subparcellisation of building plot no.1260; partial demolition of I.Gajewski's former town house; and subsequent property development

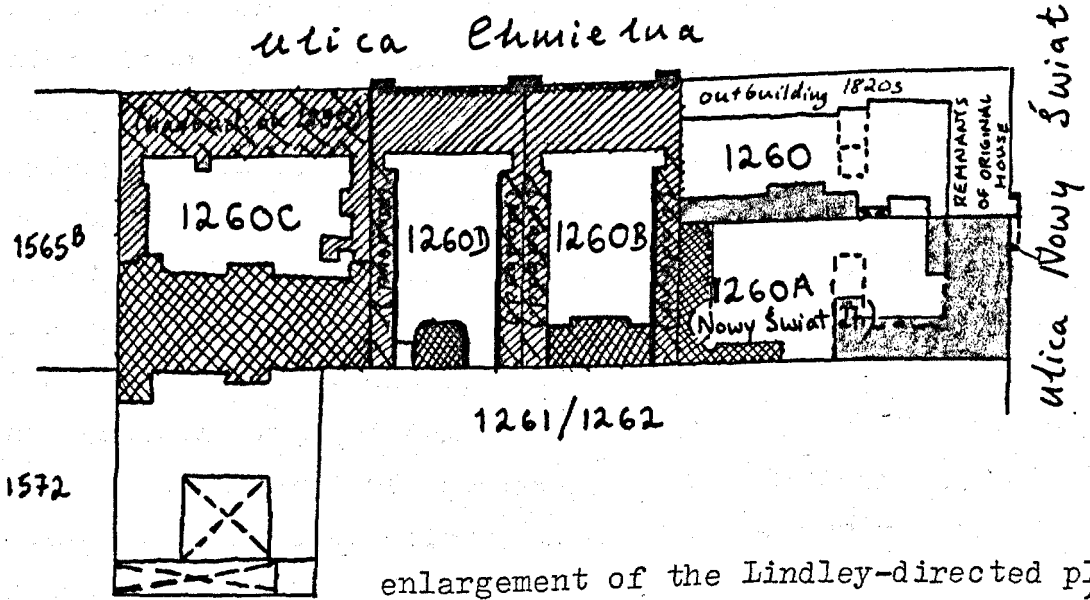
Scale 1:1,200

A. Former Gajewski town house








enlargement of the H.Świątkowski plan of 1852

B. Subparcellisation and redevelopment at high density from c. 1855



enlargement of the Lindley-directed plan of 1897

Key to plan B

-  building raised before 1855
-  1st.phase of plot development: J.Kijok's town house on Nowy Świat in the 1850s
-  2nd.phase of plot development: early tenement properties raised in the 1860s Chmielna 5, 7 and 9
-  3rd.phase of plot development: frontal- or outbuildings heightened and new "back tenements" put up in the 1890s or early-20th.century
-  wooden buildings



Jan Kijewski (co-owner with Hirschmann and later Scholtz, of a chemical plant in Solec-Powiśle; Land Registry no. 2920B). This new plot created out of the older was designated by the Land Registry Office no. 1260A and thereafter the southern half of the former Gajewski residence was pulled down - possibly semi-adapted - in the raising of Kijewski's town house, designed in the neo-Renaissance style by the architect Julian Ankiewicz (frontal house rebuilt following wartime destruction in the later-1940s).

The original plan and elevations of Gajewski's town house may be accurately reconstructed on the basis of the surviving corner house (rebuilt after 1945 with an unhistoric, obligatory 2nd. floor), as well as detailed information provided by the probable architect's own hand; the builders' estimate dated 1818 was signed by Fryderyk Lessel, then Warsaw's chief municipal architect. The original house thus consisted of 1-floor frontal and a series of probably uniform, interconnecting outbuildings arranged around a virtually closed central courtyard and an elongated sidebuilding composing a street frontage along the southern line of Chmielna. In plan it was reminiscent of a number of comparatively wealthy, "upper" middle-class/merchant-class urban residences originating from the late-18th. and early-19th. centuries (Stanislavian and post-Partition Enlightenment eras respectively). The Chmielna Street extension clearly accommodated artisan craftsmen whose workshops were located on the groundfloor while their proprietors lived in upper-storey apartments; a layout which has remained largely unchanged until present, although now these workshops have been largely replaced by pseudo-elegant shops or boutiques. Although the house

owner inevitably charged rent from such tenants, the main intention connected with the property's original development had been to provide the real-estate land owner with his own home.

So much for the historic documentation of property 1260. The unusually brief existence of Gajewski's house and the way in which its possessions and even the house itself was partitioned up in the mid-1850s reveals much about the socio-economic processes at work in the city by this time which were to become ever more widespread:

1. - the house , having only one upper storey - compared to most of the larger merchants' or upper middle-class town houses on Nowy Świat which were to come out of the 19th. century intact, albeit as adapted tenement barracks - was a modest design even by early-19th. century standards; modest above all in relation to its location on Nowy Świat and at the intersection with a street of growing importance (cf. Fig. 3.8);

2. - the death of the first owner (Gajewski) was quite closely succeeded by the death of his successor: (a Julian Domański), both had left behind them widows with probably limited dowries;

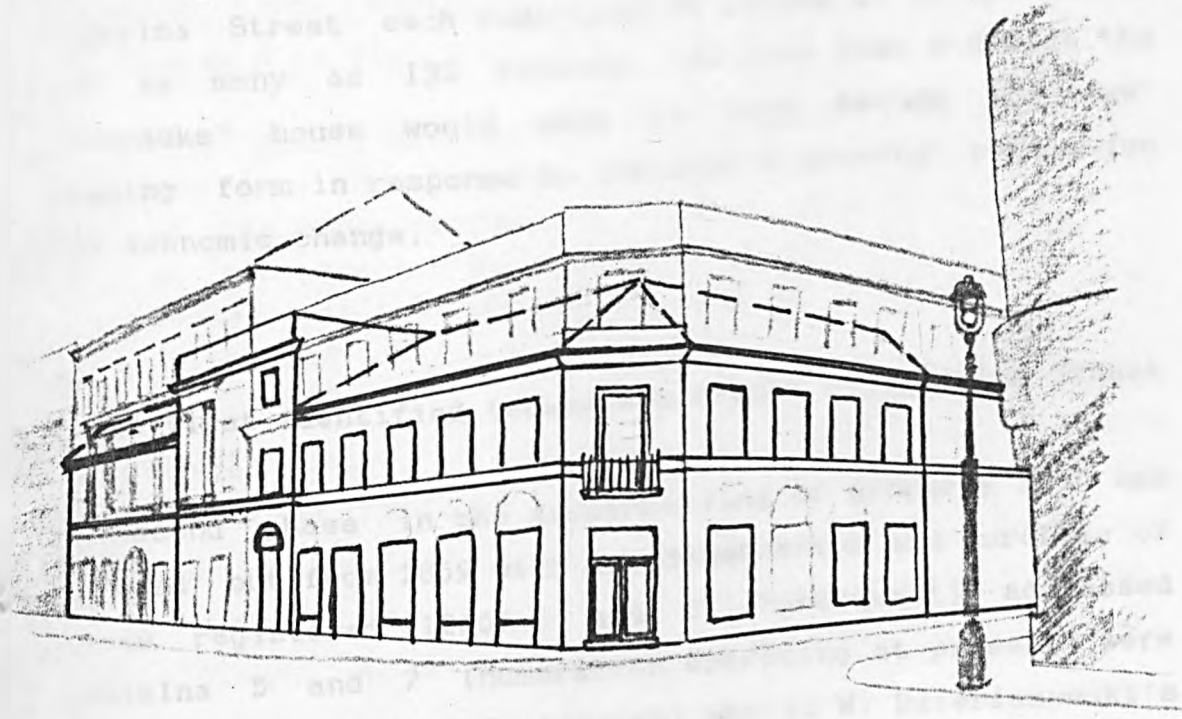
3 - the property's subparcellisation is a reflexion of growing land values in this part of the city by the mid-19th. century; Jan Kijewski may have been wealthy, but he had to make do with a comparatively modest plot on Nowy Świat, while if the widow Anna Dmowska had been in financial dire straits after her husband's death in 1849, by the time she had sold off large chunks of her property she was probably set up for the rest of her life, as well as for the lives of her offspring.

The great potential value of the real-estate registers

Figure 3.15 Readaption and post-war vertical extension of I. Gajewski's town-house



Nowy Świat 29 / Chmielna 1-3 in 1987



Kamienica Gajewskiego  
1819 - '21.

I. Gajewski's town house and its subsequent readaption in the 1850s

in analysing 19th. century Warsaw's building development is evident: information provided by the earliest volume has permitted a detailed reconstruction of the original property occupying the plot, a broad outline of its social history while simultaneously placing the remnant, truncated corner house (Nowy Świat 29 - Chmielna 1/3 in its historic context. (cf. Fig. 3.15).<sup>305</sup>

Both the corner house, from 1853 belonging more to the evolving street profile of Chmielna than Nowy Świat, - and Kijewski's residence still belonged very much to what Krzywicki and Strzelecki in the 1919 property census publication termed medium-sized; i.e. town-housing. The results of the 1882 One-Day Census tell us that Nowy Świat 27/1260A comprised at that time 13 apartments accommodating in all 56 residents, compared with 16 flats in 1260 and 78 occupants. The newer properties put up in the early-1860s on the site of Gajewski's back garden with frontages on Chmielna Street each comprised in excess of 20 apartments and as many as 132 tenants. In less than a decade the "barracks" house would seem to have become the "new" housing form in response to the city's growing population and economic change.

The first identified tenement-barracks of Chmielna Street

A second phase in the subparcelling of property 1260 was carried out from 1859 with the demarcation and purchase of plots registered 1260B-D and C. Subsequently addressed Chmielna 5 and 7 (numeration operating at present) were sold to a Seweryn Smolikowski who in W. Dzierżanowski's

Warsaw directory published in 1869 was listed as being a house owner (*właściciel domu*) by profession. Smolikowski thus figures as an early example of a citizen whose primary source of income was assured by collecting rent from tenants, including shopkeepers and artisans who would have been renting groundfloor space for their businesses:

"Houses" (in 1847) " were still small, of one or two floors and often wooden. Stone houses - the rental tenements put up primarily with an aim to securing large financial returns - did not appear en masse until the later half of the 19th. century."<sup>306</sup>

Smolikowski had built in 1860-'61 two virtually identical houses designed by Piotr Frydrych. The houses, surviving the last war with only minor damage, were initially two floors in height and composed of a frontal house and two sidebuildings each; characteristic of an early phase in tenement house evolution in Warsaw (cf. Fig. 3.16 as well as diagram B in Fig. 3.14).

"The second half of the 19th. century, and especially the last decade, witnessed changes in the mentality of the urban propertied classes. New people appeared on the scene, businessmen, owners of greater or lesser capital who were eager to invest their money effectively."<sup>307</sup>

Smolikowski chose to put the capital he had presumably amassed during the 1870s and 1880s to work by extending his property in the 1890s. The frontal houses were heightened by a single storey from the courtyard together with the outbuildings, while from the street attic windows were created and the facade was reorganised into a uniform frontage incorporating both houses. These alterations were

symptomatic of the intensified building density in plots 1260B and D. Furthermore, a backbuilding with additional flat space was raised in 1260D, but the courtyard of 1260B was sealed from the rear by the Hotel Grand "Garni" restaurant; an extremely eclectic 2-floor edifice projected by the then reputed S. Szyller (refer to "Chmielna Street Profile" photographic documentation).

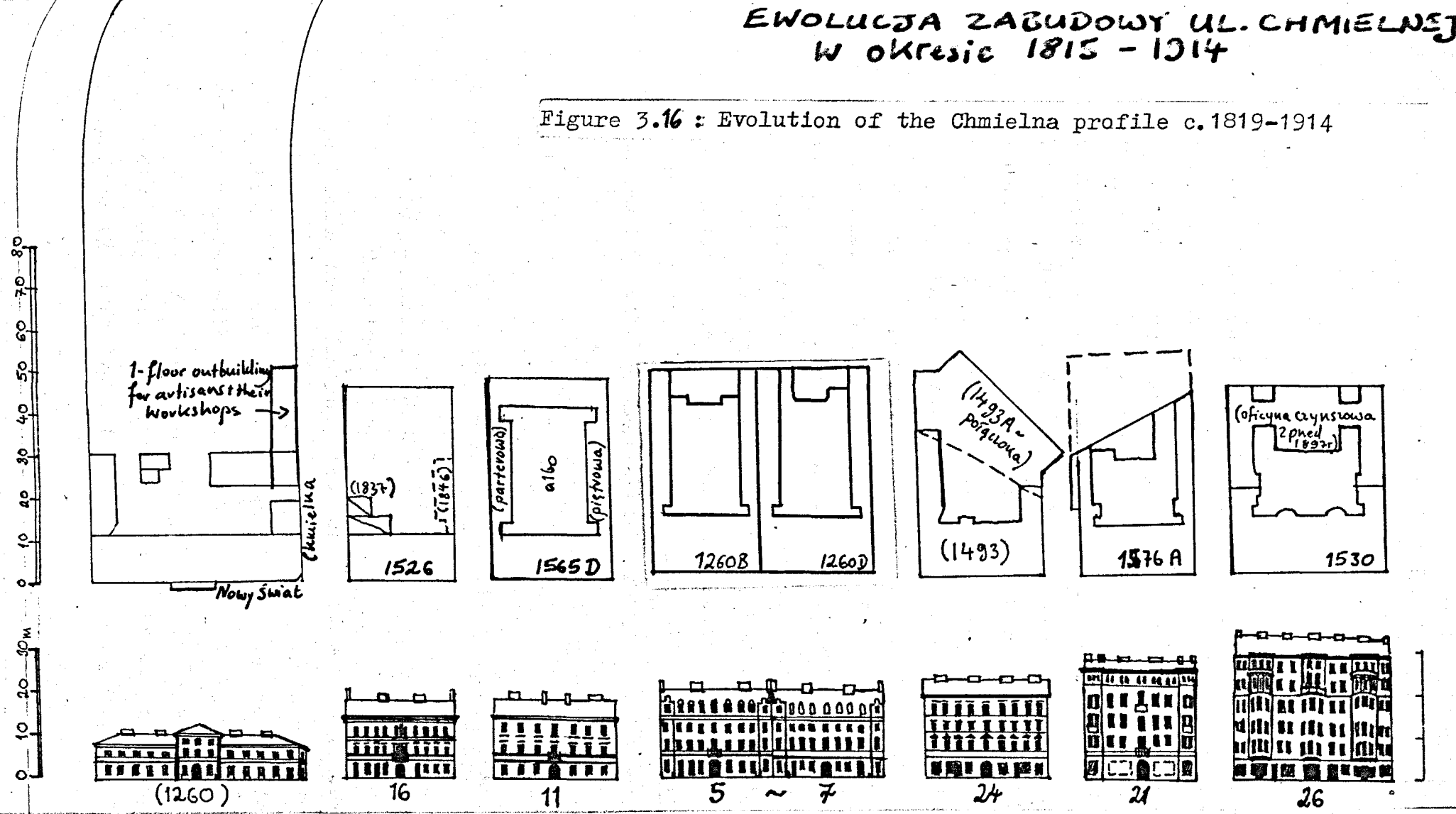
Chmielna 9/1260C, although not belonging to Smolikowski, had a very similar history, originating from the early-1860s and enlarged during the 1890s, including an entirely new back-building which replaced an earlier garden theatre known as "La Belle-Vue". Plot 1260C, extended by the purchasing of a small piece of land from real-estate division 1592/Bracka (Bracka St. no. 20), later accommodated the stone-brick "Odeon" theatre which after 1918 operated as the "Palace" cinema; secondary backbuilding frequently occurring in deeper plots occupying the middle areas of street blocks (refer to "The evolution of tenement house ground-plan" section in Chapter 9).

On the northern side of Chmielna Street, plot 1259B was subjected to a similar process of subparcellisation as property 1260 in the mid-19th. century; i.e. 1259D and 1259E. The initial dividing up of plot 1259 on the Nowy Świat side into 1259B, A and C (Nowy Świat 31, 33 and 35) had already been carried out before 1820, reflecting the significantly earlier development of the Nowy Świat street profile than that of Chmielna (compare photographic evidence from these two streets). Plot 1259D, accommodating in 1869 a vodka distillery, remained in the hands of the owner of 1259B throughout the 19th. century. Only in 1908, when the new owner, the chemist M. Malinowski, had the corner house (Nowy Świat 31) ripped



# EWOLUCJA ZABUDOWY UL. CHMIELNEJ W OKRESIE 1815 - 1914

Figure 3.16 : Evolution of the Chmielna profile c.1819-1914



J. GAJEWSKI'S TOWN HOUSE  
(1818-'20), FROM NOWY  
ŚWIAT (ST.)

TOWN HOUSE  
FROM 1830S  
NO BACK-OR  
SERVICE BUIL)

1ST. HALF OF THE  
1840S; OUT-  
BUILDINGS (RN).  
OR 1-FLOOR,  
REDEVELOPED

S. SMULIKOWSKI'S  
2-FLOOR TENEMENTS  
EARLY-1860S, EXTENDED  
& HEIGHTENED IN 1890S

TYPICAL 3-FLOOR  
TENEMENT FROM  
1ST. BOOM ERA  
(1870s) - E. LILIP

TENEMENT  
OF 1870S  
EXTENDED  
BEFORE 1914

WEALTHY APARTMENT  
FRONTAL HOUSE, c.1912.  
BACK-HOUSE RAISED  
IN THE 1890S.

down to be replaced by a 5-floor commercial tenement (diagram 1d in Fig. 3. ), was the neighbouring plot 1259D fronting Chmielna Street further subpartitioned into newly-registered parcels 6886 and 6887, the latter (Chmielna 4) remaining unaltered until its partial destruction in 1944, the former (Chmielna 6) being built up in the 1920s with a still extant, cubist-inspired and 4-floor apartment house with groundfloor shops. Plot 1259E (Chmielna 10), on the other hand, demarcated in 1858 was developed soon after for the Simler family (architect A. Woliński) recording in 1882 7 flats inhabited by 43 residents. Rebuilt after the Second World War, the original town house consisted of 2-floor frontal- and 2 sidebuildings. A single sidebuilding still stands, evidently heightened by two upper storeys, probably during the 1890s, including the upper attic level, thus proving this property was also subjected to a process of "tenementisation" before 1914.

#### Town houses and their redevelopment from the 1880s

Even-numbered addresses comprising the northern side of the Chmielna street profile were demarcated from the previous Augustinian brethrens' farmland (1259) in the 1770s (i.e. Land Registry nos. 1523-1549). The oldest section of Chmielna, stretching from Nowy Świat to the crossroads with Szpitalna/Bracka and Zgoda streets, had been largely built-up from the front by the 1860s. Both sides of this section of the street profile have been partially preserved (i.e. nos. 10, 16, 18, 20, 1/3, 5/7,

11, 13, 15 and 17), offering some insight into building forms taking shape in this part of the city immediately prior to the era of large-scale urban expansion and mass tenement property speculation. In addition, the changes brought about to external and internal plan of these properties during the study period may be traced from remnants of outbuildings dating from or redeveloped between 1864 and 1914.

A remarkably consistent, predominantly 2-floor profile was preserved between Nowy Świat and Bracka/Szpitalna until 1944, broken only by two considerably higher corner houses (i.e. that of Malinowski's and a 4-floor tenement probably raised in the early-1890s at the corner of Szpitalna Street (Chmielna 20/1528). Reference to cartographic sources from the 19th. century enable the determining of successive phases in development (cf. Plate XI<sup>d</sup>). Ignoring the earlier corner properties on Nowy Świat and a group of low buildings on the site of Chmielna 20/1528, the oldest stone-brick town house, dating back to the 1830s, has been identified on an updated Engineer-Officers' Corps plan from 1837; a frontal building later designated Chmielna 16 (Land Registry np. 1526). This house would appear to have been designed from the start as a 2-floor building. It was to be subsequently developed from the back with outbuildings: groundfloor or a single upper storey up to the 1860s, thereafter increasingly higher (refer to photographic documentation).

The next revised 1:4200 Engineer-Officers' Corps plan from 1846 reveals a further 3 stone-brick properties had been raised on this part of Chmielna Street. Number 18 (1527) was among these: another 2-floor, 9- (street-facing) windowed frontal house which already possessed 2-floor or

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lower outbuildings. According to the 1882 One-Day Census, property 1527 contained 8 flats housing 44 people. In its present condition the property retains 2 sidebuildings, one of which must have been heightened after the 1880s by two or more storeys, including a series of attic flats, entered via one, original, wooden and a modern, concrete staircase. At the time of writing this property contains 32 apartments, including groundfloor shops/boutiques. A backbuilding and second sidebuilding, probably of similar height, were pulled down in the 1960s.

By the 1840s Chmielna was already becoming an important shopping street, linking as it did the two major North-South thoroughfares of Nowy Świat and Marszałkowska; moreover, it led directly from 1845 to the Warsaw-Vienna Railroad terminus. Building activity from the later-1830s until the 1860s, representing the first phase in the developing of Chmielna Street, was directed mainly by merchants and tradesmen. Such people presumably set up their businesses and resided in the 2-floor, street-facing main building, but where there was room subsequently had put up outhouses subdivided into apartments which they leased out to employees or rent-paying tenants. A characteristic of many Warsaw streets in the study period is the comparatively minor alteration to street profile while high density development was carried out at the back in the form of ever higher and often increasingly subdivided outbuildings. Apart from the older part of Chmielna, modest 2- or 3-floor street frontages hiding multi-storey back-tenement construction may be observed on Nalewki, Gesia and other streets of the Jewish commercial quarter. Only where land values rose especially steeply and extreme pressure was placed on owners to maximise returns

on their properties were lower frontal buildings, usually predating the 1860s, demolished and replaced by multi-storey developments; e.g. on Nowy Świat, as well as Marszałkowska and other principal central streets. Consistently high street profiles exceeding 3 floors were generally evolving in the more distant southern Mid-Town districts where tenement speculation did not on the whole get underway until the mid-1890s or first years of the 20th. century; e.g. Nowa Wielka (now Lwowska), Nowowiejska, Polna, southern Mokotowska, southern Marszałkowska, Natolińska and Służewska streets.

Chmielna street began, therefore, to evolve from its rural origins in the 1830s or early-1840s. Crossing main arteries directing the city's spatial growth in a long-established southerly orientation parallel to the escarpment, Chmielna had not figured significantly in earlier periods of urban development, violently interrupted in 1792/'5 (population decline from c. 120,000 to 68,000) and 1830-'31 (decrease of some 30,000 registered inhabitants). A fieldroad in the late-18th. century, Chmielna in the 1820s was little more than a passageway between two Nowy Świat properties and their outbuildings, behind which the city became a semi-rural backwater of intermittent wooden cottages or farmbuildings. It is worth noting that even after the corner house on Nowy Świat 31 (1259B) had been demolished in 1908 the street at its intersection with Nowy Świat was never widened, thus retaining its pre-18th. century dimension of barely 8 metres. The City Council presumably was not prepared to meet the costs of buying up the 500m<sup>2</sup> or so of land to create a regulated width of 12m. The fact that Malinowski was able to go ahead with his 6-storey tenement, with its

14m x 7m well-courtyard, is very indicative of the great freedom open to property speculators in early-20th. century Warsaw. (Refer to "Building regulations" in Chapter 10).

Only the three properties replacing the former Gajewski residence gardens (i.e. 1260B-D and C) were planned from scratch as tenement houses during the initial development phases on Chmielna up to the 1860s. Turning attention to the group of 2-storey town houses nos. 11/1565B, 13/1665D, 15/1565C and 19/1565A, the first of these, raised in the early-1840s according to a design by the Italian architect Henrico Marconi; burnt out during the war and remaining only as a frontal house, but retaining its pre-war internal plan (staircase and main partitioning walls), could be interpreted as marking a certain stage in the evolution of multi-family housing in 19th. century Warsaw. The street frontage, minimally altered by post-war rebuilding, is very modest while the present-day 1st. and 2nd. floor plans suggest that no. 11 was designated as a middle-class apartments house; possibly subdivided into smaller flats in the late-19th. century or early-20th. centuries. The first outbuildings, including in all probability stables, as well as domestics' quarters and maybe craftmen's workshops, were either replaced or incorporated into later tenement back-houses. This almost certainly occurred after 1882 when a mere 9 flats accommodating 45 residents were recorded. This late-Biedermeier town house well fits the "house model" depicted by J. Hensel in her study "Warsaw's bourgeois class in the second half of the 19th. century in the light of public notary documents" (refer to "Primary Sources" in the Introduction.)

The ruins of a disused manufacturing plan still stand

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at the back of Chmielna 13/1565D,. The frontal building is another medium-sized, multi-family house (16 flats in 1882), coming from the late-1850s. The corner house (1565D) represents a genteel small-scale precursor of the later tenements. Raised in stages from the mid-1850s, comprising 4 interconnecting, 2-floor buildings around a central courtyard exceeding 300m<sup>2</sup>, it contained in 1882 just 15 apartments inhabited by 87 residents.

#### Tenement property development on east-Chmielna Street

If Chmielna's profile between Nowy Świat and Bracka/Szpitalna streets was almost entirely built up by the mid-1860s, property development further west was barely underway. Referring to the 1867 revised Engineer-Officers' Corps plan, it is striking that two corner houses, this time fronting Marszałkowska, are again the first stone-brick properties occupying with their courtyards the entire plot.

The "middle-sized" town house in the evolution of northern Marszałkowska's profile, reflecting this street's growing commercial as well as its arterial importance, had already begun in the late-18th. century, but was interrupted for around 50 years by the political and ensuing social-economic changes brought about by the Polish Partitions.<sup>308</sup> The earliest period of development is thus represented by one-floor stone-brick "small town" houses (e.g. no. 137/1375 on the corner of Świętokrzyska St., surviving until 1939-'44), and modest sub-urban residences (such as that of the Gdańsk-Danzig castellan, J. Pruszek,

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raised in 1762 (141/1372) or of the banker, K. Bernaux, more than a kilometre to the south at the corner of Hoża Street (1677 and 1678; subdivided into 5875, 5876 and 5951-'66 in the early-1890s), apart from innumerable wooden manor houses and cottages. The ensuing phase of house building occurring in the 1840s and 1850s, was a direct response to the Warsaw-Vienna Railroad station's location on Marszałkowska and was concentrated on the section running from Jerusalem Avenue to Królewska Street; i.e. 20 floor town houses somewhat grander in scale and style than those on eastern Chmielna Street. The corner house 110/1535 (Chmielna 40) originated from this era, but was already rebuilt and extended in 1884 by J. Huss. The corner house on the other side of Chmielna/Marszałkowska 108/1559B was raised on the site of service buildings previously forming part of subdivided property 1559 in 1861: an early 3-floor tenement designed by A. Woliński for the building merchant Konarski (Christian name unknown). This classic early tenement, subdivided in 1882 into 38 apartments accommodating 172 people, was enlarged and received a new, eclectic facade after 1900. The pace of change was clearly far greater on Marszałkowska than on Chmielna, reflecting contrasts in land values between the two streets, as well as rents charged by owners.

The tenements or tenementised town houses of northern Marszałkowska have disappeared altogether since 1944 and less of the building fabric of Chmielna Street in the vicinity of Marszałkowska has remained than at Nowy Świat end. However, nos. 28/1531A and 30/1531, originating from the mid-1860s, are still extant. The 1882 census, predating the intensively speculative years of the 1890s and early-1900s, provides some indication of the extent to



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which these properties had been designed in the first place to function as tenement barracks. Number 28, with 20 apartments and 90 residents, was more intensively built up in that year than no. 30 (12 flats and 55 registered occupants). It should come, perhaps, as no surprise that no. 30 was enlarged after the 1880s; in fact, some time before 1905 when the frontal house received a new facade, and possibly a new upper storey, designed in the so-called Zakopane national folk style by J. Wojciechowski. Prestige was clearly an important factor in property ownership, but it is highly unlikely the owner, a Dr. A. Gryszyński, would have engaged a well-known and expensive architect just for the new frontage: it would be presumed that the property's "tenementisation" was effected simultaneously and according to the plans of this architect. The complex of five outbuildings behind nos. 28 and 30, exceptional for escaping at least partial post-war clearance, would be expected to provide valuable information in external layout, building phases and internal plan of such tenement back-building during the study period. Appropriated by the municipal authorities in or shortly after 1947, the two properties were merged into a single housing ensemble with street numbers 28-30 (frontal houses) and 28A-30A (back-houses). There is just the one main staircase, entered from the gateway to no. 30, while that of no. 28 is sealed off. The outbuildings form an expansive, four-sided courtyard interrupted by the second sidebuilding of no. 30. The outbuildings were put up or subsequently heightened at different times throughout the 1864-1914 period; each of them has 3 or more upper storeys. The backbuilding of no. 30, for example, according to the tenant of apartment 8, is over 115 years

old, and the 1870s building phase would certainly agree with its modest, but effective, proportions and Parisian town-house style (refer back to "Building phases (...) in 1864-1914" section of Chapter 9 and photographic documentation). Only 20 residential apartments are enumerated on the Residents' List ("Lista lokatorów") in the gateway to no. 30. Apart from recently reappearing in the basements of 28A and 30A, shops occupy the entire groundfloor space of nos. 28 and 30, as well as parts of the outhouses. In the frontal house of no. 30, containing 2 apartments on each floor, shops selling electronic products, ceramics and other consumer goods together with a foreign exchange office are situated on the groundfloor, a footwear wholesalers and "Barbara" wedding outfits hiring service on the 1st., and a solicitors' firm ("zespoł adwokacki") on the 2nd. floor; thus, only one 2nd. floor and two 3rd.-floor apartments continue to serve residential functions at the time of writing (September 1990). The encroaching of commercial-retail business activities in city centre properties would be expected to follow the kind of pattern observed in Chmielna 30/1531, where frontal houses are being given over to non-residential functions to a greater degree than backbuildings which, beyond groundfloor or basement retail outlets or small-scale, handicraft production sites, remain largely residential. This phenomenon has been identified as occurring before the First World War (refer to cartograms b and e in Chapter 4), was intensified during the interwar years<sup>309</sup> and has been observed to be reasserting itself in the 1990s. The sidebuilding of no. 28 was demolished in early 1990. If and when the original owner of Chmielna 28/1531A, or his offspring, make a claim on the property (which may be

unlikely, since Mr. Izaak Frank, the registered proprietor in 1930, was obviously Jewish), or - as may prove the more likely outcome in the long run - the City Council finds a private buyer, it would be expected that the present vacant site will be filled by a 3- or 4-floor building accommodating retail, office and/or workshops on lower storeys and rented flats on the upper floors.

The remaining tenements of interest to empirical research on Chmielna Street between Marszałkowska and the Bracka/Zgoda intersection were raised mainly in the 1870s and later enlarged. Number 22/ Land Registry no. 1493A), occupying a narrow triangular plot on the corner of Zgoda Street, initially belonged to a triad with the neighbouring properties of Chmielna 24/1493 and Zgoda 3/1493B. Evidently motivated by speculative and investive interests, the three initially 3-floor tenements were built around 1875 for the architect-industrialist Edmund Lilpop who had his own villa residence in the Ujazdów quarter of town (refer back to Aleksandryjska/Ujazdów tenement district T-10 in Chapter 6). This tenement ensemble in 1882 accommodated 213 residents. The three houses were subsequently sold off to different proprietors, shops were opened on groundfloors and the corner house heightened in at least two stages (in a photograph from the mid-1890s already 4 floors and by 1914 5 floors with a new, early-modernist facade retaining some of the neo-Renaissance ornamentation of the first design, presumably conceived by Lilpop himself: cf. Fig. 3.9). The corner house addressed Zgoda 2 and Szpitalna 1/1529), whose burnt-out ruins were replaced in the 1960s by a multi-storey apartment block and "Szwajcaria" restaurant, had also been extended vertically in several stages during

the 1890s and early-1900s.

The gradational development of Chmielna 26/1530 between the 1850s and c. 1912 in relation to its relatively expansive 35m x 45m plot, was horizontally rather than vertically orientated. A small, probably single-family stone-brick house replacing the former wooden cottage was built up from the back by stone-brick and wooden outbuildings, giving way after 1870 to a tenement outhouse (21 apartments and 66 inhabitants in 1882). Only after 1908 was a tenement frontal house constructed, remaining to this day. Judging from its rich architectural programme, as well as the post-1945 subdividing of the original flats (1a-c, 2a-d, 3a, 4a-e, 5a-e, etc.), this 5-floor architectural massif was designed for upper middle-class tenants (author unknown). The pre-war owner, a Henryk Doktorowicz, has already successfully regained ownership of no. 26, whose back-tenement was pulled down in the 1960s, and the frontal building is presently undergoing renovation. It is not clear what is to be the fate of the present tenants who presumably must now pay their rents to Doktorowicz and not the City.<sup>310</sup>

A group of properties with Land Registry nos. 1564, 1576 and 1576A at the corner of Chmielna and Bracka streets, belonging until the 1940s to a single wealthy bourgeois family, provides a case study of mixed commercial, residential and even small-scale activities carried out within one property which have continued to operate within the modern day urban infrastructure. Plots 1564 and 1576 were occupied between c. 1780 and 1851 by Warsaw's first, inevitably wooden, public circus, financed by the German jeweller Kotler. These plots were apparently subdivided in the 1850s into 1564, 1564A-C, 1576 and 1576A.

Chmielna 21/1564 is not listed in the Property Registries until 1882 when the owner is recorded as being an Emilia Grün (widow?). The tenement had already been raised by this time, composed of 25 apartments accommodating 111 residents in that year: a 3-floor frontal house with 2 sidebuildings. Chmielna 21 was heightened and extended for one of the numerous successive owners in the 1890s or early-20th. century, or possibly as late as 1915 when it was purchased by the Jabłkowski brothers, owners of the department store on Bracka 25/1576A. An 8-storey warehouse with upper-storey residential apartments had already been incorporated into the Jabłkowski shopping centre in or around 1913 when the main store itself had been constructed; an impressive 5-floor edifice designed by K. Jankowski and F. Lilpop who were clearly inspired by the Chicago School and its canons. The corner plot (Chmielna 19/1576) accommodated a tobacco factory from the late-1850s or early-1860s, including a modest residential building no doubt housing at least some of the factory's employees and their families, demolished somewhat unfortuitously in the Gierek years; today an empty site awaiting development in the new economic climate of post-"communist" Poland. The factory and its subsidiary buildings were purchased by the Jabłkowskis before 1914. A department store, small factory and at least 350 paying tenants (381 in 1882) were thus accommodated within an area not exceeding 3000m<sup>2</sup>: the accumulated assets of two very successful and related early-20th. century Warsaw capitalists. The Jabłkowski family has regained possession of the former Children's Central Store (1952-'70), largely explaining its impressive and rapid renovation following years of tranquil dilapidation.

Number 25/1564B, judging by the unusual ground-plan on the 1867 and 1897 city plans, was initially occupied by a small manufacturing plant redeveloped at the end of the 19th. century as a tenement property for W. Gorodyjski. This is a rare example of a 3-floor tenement constructed at a time when rising land rents and increasingly competitive property speculation was pushing up building heights to at least 4 or yet more upper storeys, culminating in the 12-storey Cedergren Company Telephone Exchange raised in 1904-'5 on Zielna Street (architects I. Clason and B. Brochowicz-Rogoyski: Warsaw's and one of Europe's first sky-scrapers). In spite of a handful of multi-storey, mainly corner tenements, Chmielna retained a comparatively modest, decidedly tradesman's modesty in its evolving street profile throughout the 1864-1914 period until its partial destruction during the Second World War and ensuing post-war reconstruction. Modesty, on the other hand, is not evident in the powerful, 8-storey back tenement forming before 1945 a part of Chmielna 27/1564A which had previously consisted of a 3-floor frontal house and 2 sidebuildings (21 apartments and 113 inhabitants in 1882; it is worth noting that a single, 3-floor bay of one of the original sidebuildings has remained to the present day, revealing that three apartments on the 1st., 2nd and 3rd. floors of the back tenement are larger than those of the 4th.-7th. floors).

Table 14: Property development, flat subdivisions and registered tenants in street blocks fronting Chmielna Street 1882-1914/19

address			Number of:		Land Registry Street Number /1914/			Number of:	
Land Registry Number	Street Number /1914/		Flats	Tenants (in 1882)	Land Registry Number	Street Number /1914/	Flats	Tenants (in 1882)	
<b>STREET BLOCK 129 /Towarowa/</b>					<b>STREET BLOCK 130 /Towarowa/</b>				
1.	1551	Chmielna 75+	29	144	1.	1549H	Chmielna 126+	23	93
2.	1551A	" 77	25	133	2.	1549F	" 128	58	359
3.	1551B	" 79	28	149	3.	5356	" 130	-	-
4.	1551C	" 81	18	81	4.	5357	" 132	-	-
5.	1550	" 83	17	71	5.	1549N	" 134	-	-
6.	1550A	" 85	29	126	6.	1549Z	" 136	30	88
7.	1550B	" 87	16	95	7.	1549W	" 138+	40	174
8.	1550C	" 89	36	118	8.	1549T	Twarda 59	1	3
9.	1550D	" 91+	18	85	9.	1505	" 55A	-	-
10.	1550E	Twarda 67	9	46	10.	1505K	" 55	-	-
11.	5853	Twarda 69	-	-	11.	1505J	" 53	23	95
12.	1572A	Żelazna 21	-	-	12.	1505	" 51	21	100
<b>TOTAL</b>			<b>225</b>	<b>1048</b>	13.	1505	" 49+	12	49
1882 - 10 inhab. d. properties			<b>225</b>	<b>1048</b>	14.	1505H	Żelazna 29	19	128
1919 - 12 dvlpd. properties			<b>434</b>	<b>1780</b>	15.	1549K	" 27	34	131
<b>TOTAL</b>					<b>TOTAL</b>				
1882 - 10 inhab. d. properties			<b>225</b>	<b>1048</b>	1882 - 10 inhab. d. properties			<b>260</b>	<b>1220</b>
1919 - 12 dvlpd. properties			<b>434</b>	<b>1780</b>	1919 - 15 dvlpd. properties			<b>609</b>	<b>2635</b>
<b>STREET BLOCK 197 /in Grzybów/</b>					<b>STREET BLOCK 200 /Grzybów/</b>				
1.	1549M	Chmielna 78+	72	270	cont. street block 197				
2.	1549ABI	" 80	30	139	37.	1505D	Żłota 59A	3	11
3.	1549ABII	" 84/6	40	215	38.	1505G	" 59	1	14
4.	1549ABIII	" 82	-	-	39.	1506	" 57A	29	106
5.	ABIV	" 88/90	25	114	40.	1506A/?/	" 55A	-	-
6.	ABV	" 92	1	3	41.	6750	" 65A	-	-
7.	ABVI	" 94	16	60	42.	1507	" 57	38	171
8.	ABVII	" 96	1	7	43.	1508B	" 55	30	108
9.	ABVIII	" 98	15	70	44.	1508A	" 53	9	28
10.	ABIX	" 100	1	4	45.	1508	" 51	8	40
11.	ABX	" 102	-	-	46.	1509A	" 49	28	141
12.	1549C	" 104	29	114	47.	1509	" 47+	37	186
13.	15490	" 106	19	50	48.	1509B	Sośnowa 3	15	80
14.	1549P	" 112/4	75	326	<b>TOTAL</b>				
15.	1549R	" 108	37	146	1882 - 30 inhab. d. properties			<b>658</b>	<b>2884</b>
16.	1549I	" 110	23	100	1919 - 48 dvlpd. properties			<b>1739</b>	<b>6917</b>
17.	1549S	" 116	-	-	<b>STREET BLOCK 200 /Grzybów/</b>				
18.	1549G	" 118	1	10	1.	1387	Marszałkowska 105	39	212
19.	6376	" 122	5	42	2.	1558	Chmielna 41	27	115
20.	1549D	" 124+	-	-	3.	1557	" 43	27	115
21.	1549L	" 22	-	-	4.	1556A	" 45	47	230
22.	1549E	" 24	-	-	5.	1556B	" 47	22	93
23.	6879	" 26	-	-	6.	1556C	" 49	20	96
24.	1549J	Żelazna 22	-	-	7.	1556D	" 51	3	13
25.	5264	" 28+	-	-	8.	1388	" 51	24	106
26.	5263	" 77	1	2	9.	1553	" 55	18	89
27.	5262	Żłota/" 77	21	106	10.	1553A	" 57	1	4
28.	1505	Żłota 77	-	-	11.	1553B	" 59	-	-
29.	1505A	" 73	-	-	12.	1553C	" 61	11	61
30.	5262	" 71	-	-	13.	1553D	" 63	17	58
31.	5261	" 69	-	-	14.	1553E	" 65	-	-
32.	5260	" 67	14	50	15.	1553F	" 67	-	-
33.	1505B	" 65	36	164	16.	1552	" 69-73	-	-
34.	1505C	" 63	-	-	17.	1554/55	" 53	7	35
35.	6257	" 61	-	-	18.	1570	Jerusalem Ave. 46	-	-
36.	6256	" 61	-	-	19.	1572/3	" 44	40	228
					20.				
					21.				
					22.	former property of the Warsaw-Vienna Railroad (subdivided)			
					23.	former property of the Warsaw-Vienna Railroad (subdivided)			

address				address			
Land Registry Number	Street	Number of:		Land Registry Number	Street	Number of:	
		flats	tenants (1882)			flats	tenants (1882)
<b>TOTAL /street block 200/</b>				<b>STREET BLOCK 196 /in Grzybów/</b>			
1882	14 inhab. properties	292	1359	1.	1538 Chmielna 52+	14	55
1919	/23/dvlpd. properties	464	1805	2.	1538A " 54	17	45
<b>STREET BLOCK 198 /Grzybów/</b>				3.	1539 " 56	24	108
1.	1423 Chmielna 48+	31	110	4.	1540 " 58	38	133
2.	1537 " 50+	19	67	5.	1541 " 60	15	69
3.	5808 Wielka 4	-	-	6.	1542 " 62	20	98
4.	5809 " 6+	-	-	7.	1543 " 64	38	153
5.	1421 Zielna 7+	25	124	8.	1543A " 66	19	88
6.	5807 " 5	-	-	9.	1544 " 68	40	200
7.	1423A " 3	-	-	10.	1545 " 70	31	166
<b>TOTAL subparcellisation</b>				11.	1546 " 72	28	151
1882	3 inhab. properties	75	206	12.	1547 " 74	-	-
1919	6 dvlpd. properties	157	602	13.	1548 " 76+	58	223
<b>STREET BLOCK 199 /Grzybów/</b>				14.	1548A Sosnowa 4	-	-
1.	1386 Marszałkowska 109+	12	28	15.	1510 " 6	30	147
2.	1536 Chmielna 44	25	96	16.	1510A/6927" 8+	29	104
3.	1424 " 46+	18	65	17.	1511 Złota 43	26	119
4.	1425 Zielna 4	20	64	18.	1512A " 41	20	123
5.	6560 " 6	-	-	19.	1512 " 39	29	136
6.	1426 " 8+	4	14	20.	1513 " 37	30	129
7.	1384/5 Marszałkowska 111/13	20	97	21.	1514 " 35	13	32
<b>TOTAL</b>				22.	1515 " 33	28	125
1882	6 inhab. properties	99	364	23.	1516A " 31	20	101
1919	7 dvlpd. properties	184	589	24.	1516 " 29	23	116
<b>STREET BLOCK 225 /Nowy Świat/</b>				25.	1517 " 27	20	66
1.	1577 Bracka 23	13	81	26.	1517B " 25	2-	-
2.	1578 " 21+	17	85	27.	1441A " 23	16	89
3.	1578D Widok 6/8	14	74	28.	1441 " 21+	1	3
4.	6830 " 8	-	-	29.	1442 Wielka 5	22	126
5.	1578C " "	1	8	30.	1443 " 3	16	76
6.	1578B " "	12	75	<b>TOTAL</b>			
7.	1578A " "	12	70	1882	26 inhab. properties	665	2984
8.	1566 " "	13	83	1919	30 dvlpd. properties	1105	4023
9.	1566A " "	11	60	<b>STREET BLOCK 226 /Nowy Świat/</b>			
10.	1566B " "	2	26	1.	1493B Chmielna 22+	13	75
11.	1567 " "	33	175	2.	1493 " 24	38	138
12.	1567A " "	22	118	3.	1530 " 26	20	80
13.	1392 Marszałkowska 104+	24	133	4.	1531 " 28	17	55
14.	1559A " 106	3	30	5.	1531A " 30	20	90
15.	1559B " 108+	38	172	6.	1532 " 32	30	117
16.	1560 Chmielna 35	27	123	7.	1533 " 34	18	90
17.	1561 " 33	19	77	8.	1533A " 36	22	80
18.	1562 " 31	12	71	9.	1534 " 38	23	116
19.	1563 " 29	46	223	10.	1535 Marszałkowska 110+	-	-
20.	1564A " 27	20	86	11.	1393 " 112	14	85
21.	1564B " 25	9	37	12.	1518/9 " 114+	11	24
22.	1564C " 23	21	113	13.	1519/20 Złota 9/7	4	20
23.	1564 " 21	25	111	14.	1520A " 5	38	137
24.	1576/1576A " 19+	25	154	15.	1521 " 3	18	78
<b>TOTAL</b>				16.	1522 " 1+	10	40
1882	23 properties	418	2185	17.	1522A Zgoda 5	39	159
1919	24 properties	615	2009	<b>TOTAL</b>			
<b>STREET BLOCK 225 /Nowy Świat/</b>				1882	17 properties	347	1442
<b>STREET BLOCK 226 /Nowy Świat/</b>				1919	16 properties	415	1417
<b>STREET BLOCK 235 /Nowy Świat/</b>				<b>STREET BLOCK 235 /Nowy Świat/</b>			
1.	1529 Szpitalna 1+	21	103	1.	1529 Szpitalna 1+	21	103
2.	1529A " 3	17	106	2.	1529A " 3	17	106
3.	1354 " 5+	21	96	3.	1354 " 5+	21	96
4.	1354A Zgoda 6+	13	82	4.	1354A Zgoda 6+	13	82
<b>TOTAL</b>				<b>TOTAL</b>			
<b>TOTAL</b>				1882	4 properties	72	387
<b>TOTAL</b>				1919	4 properties	99	376



continuation

address		Number of:	
Land Registry Number	Street Number /1914/	flats	tenants (1882)
STREET BLOCK 237 /Nowy Świat/			
1..	1259B Chmielna 2+	19	73
2.	1259D/6886 " 4/6	-	-
3.	1259E " 8	7	43
4.	1523 " 10	1	3
5.	1524 " 12	29	119
6.	1525 " 14	13	61
7.	1526 " 16	10	66
8.	1527 " 18	8	44
9.	1528 " 20+	13	68
10.	1528A Szpitalna 4	23	94
11.	1355D " 6	11	49
12..	1355G " 8+	10	40
13.	1355H " 10+	18	108
14.	1355G " 12	22	77
15.	1355F " 14	13	99
16.	1355E Warecka 17+	4	34
17.	1356 " 15	11	60
18.	1357B " 13	2	16
19.	1357A " 11	8	63
20.	1357 " 9	54	279
21.	1253A " 7	11	61
22.	1253B " 5	8	19
23..	1253C " 3	9	45
24..	1253 Nowy Świat 51+	13	67
25.	1254 " " 49	25	114
26.	1255 " " 47	9	34
27..	1256 " " 45	14	57
28.	1257 " " 43	19	118
29.	1258A " " 4	40	167
30.	1258B " " 39	12	44
31.	1258C " " 37	8	37
32.	1259C/D " " 35	15	100
33..	1259A " " 33	15	91
34.	1258I Hortensja 2	-	-
35.	1258F " " 4	-	-

address		Number of:	
Land Registry Number	Street Number /1914/	flats	tenants (1882)
cont. Street block 237 /in Nowy Świat/			
36.	1258G Hortensja 6	-	-
37.	1258 " 8	-	-
38.	1523A " 1	-	-
39.	1258H " 3	-	-
40.	1258K " 5	-	-
41.	1258L " 7	-	-
42.	1355K /Municipal pawnshops/	-	-
TOTAL			
1882	32 properties	450	2350
1919	42 properties	959	3748
STREET BLOCK 236 /Nowy Świat/			
1.	1260 Nowy Świat 27	13	56
2.	1261/2 " " 23/5	17+24	75+73
3.	1263/4 " " 21	25	141
4.	1265A+B " " 17/19	17+9	96+22
5.	1267K " " 15+	9	76
6.	1267D Jerusalem Ave. 4	8	28
7.	1267E " " 6	9	76
8.	1267 " " 8	-	-
9.	1267B " " 10+	17	91
10.	1265C Bracka 18	26	110
11.	1592 " 20	15	58
12.	1565A " 22+	15	87
13.	1565C Chmielna 15	10	51
14.	1565D " 13	16	55
15.	1565B " 11	9	45
16.	1260C " 9	21	88
17.	1260B-D " 5-7	29+27	246
18.	1260 " 1-3	16	78
TOTAL			
1882	19 properties	332	1558
1919	18 properties	420	1371

Western Chmielna Street Profile

Extensive wartime damage and the opening up from 1952 of Defilad ("Parade") Square around the truly monumental Palace of Culture and Science involved the complete liquidation of the Chmielna street profile between a transformed Marszałkowska and the post-war relief road named in honour of J. Marchlewski (now Pope Jean-Paul II Street). In 1950 the eastern section of Chmielna was renamed in honour of the communist martyr H. Rutkowski, but the traditional name was reintroduced in 1990. Consequently, Chmielna Street at present is cut into two quite distinctive sections: the business-shopping street running from Nowy Świat to the Central Department Stores on Marszałkowka and the western section between Marchlewskiego/Pope Street and the historic intersection with Twarda/Krajowa Rada Narodowa Street in the former Towarowa commissariat.

A general tendency could be expected in Chmielna's evolving street profile of advancing tenement housing in a westerly direction during the 1870s and 1890s building phases from the Nowy Świat end where the earliest town houses and prototype tenement barracks properties have already been seen to have arisen during the 1840s/'50s and 1860s. The westerly orientation was undoubtedly characteristic, but cartographic sources dating from 1852, 1859 and 1867 reveal development west of Marszałkowska Street in the Vienna Station's immediate vicinity was more advanced than on the section running eastwards between Marszałkowska and the Bracka/Zgoda intersection (compare profile series 1 and 2 in plate XIId). Rail travel was still a comparatively recent innovation in the 1860s and

1870s. It might be supposed that, as in other 19th. century cities, an address near the new terminus was a source of some prestige, as well as convenience, among the middle classes; at least to begin with. By the late-1870s tenement houses with comparatively uniform, 3-floor frontages had been raised along a large part of Chmielna to the west of Marszałkowska; particularly on its northern, even-numbered side, but also in pockets on the southside, which had not been bought up in the 1840s by the Warsaw-Vienna railroad Company. Intensive property development on west-Chmielna Street during the late-1860s and throughout the 1870s is well emphasised in the 1882 One-Day Census results (cf. Table 14 and plate Xc in Chapter 10). Some of these properties were extended, vertically as well as horizontally, while new tenements were put up from scratch on plots remaining vacant during ensuing building phases (especially in the 1890s and after 1907).

Evidence drawn from the 1882 census, the base plan and pre-war photographs has permitted a "reconstruction" of the ground-plan, frontal elevation and internal layout of Chmielna 68/1544; a tenement property put up some time between 1867 and 1882 (refer to Fig. A on the Introduction). In 1882 no. 68 was subdivided into 40 apartments housing precisely 200 registered tenants. Six staircases have been identified from the 1:2500 scale base plan, permitting a hypothetical partitioning of each storey, including the groundfloor, into 10 apartments: 2 larger, street-facing flats entered by the main staircase in the gateway with separate back entrances for domestics; 2 modest flats entered by one of the first 2 staircases immediately left and right of the gateway and 2 sets of

equally modest or slightly larger apartments to which access was gained from one of the 3 remaining back-staircases (cf. plate Xb in Chapter 10).

Data referring to individual properties, their subdivisions into apartments and the number of residents is available only for the year 1882. In the 1919 census statistics were released for the municipal districts or, at best, street blocks. By calculating the number of apartments and residents in properties grouped in street blocks a broad assessment becomes possible of the kind of changes taking place from the early-1880s within Mid-Town, as well as Praga, tenements: or - where intensive property development had yet to advance to more peripheral districts - of the building process itself. Taking as an example the street block designated no. 196, bounded by (west) Chmielna, Sosnowa, Złota and (north) Wielka streets; i.e. the block in which property no. 1544 was situated, 1739 habitable flats and 6917 residents were recorded in 1919, compared to just 655 apartments and 2984 residents in 1882 (refer to plate IVa and VI f. Calculations of properties grouped in street blocks 129, 130, 196, 197, 198, 199, 200, 225, 226, 236 and 237, each incorporating part of the Chmielna street profile, are presented in Table 14).

In 1882 of the 26 properties listed within street block 196, 18 could be categorised as "true" barracks-tenements (i.e. composed of more than 20 apartments), while the remainder represented medium-sized tenements, rather than town houses, inhabited by comparatively wealthy tenants (10-20 flats with 4 or more rooms; refer to "Social segregation in tenement housing" in Chapter 10 and also the "apartments divided into rooms" diagram in Fig. A of the Introduction, where such a 4-room

flat is depicted, even though the actual tenement was composed of more than 20 apartments in this case). The real-estate parcel at the corner of Wielka and Złota streets (1441), composed of one "flat" inhabited by 3 people, may have been in the course of construction at that time. The 1882 census listed only inhabited properties, while the survey of 1919 counted all forms of "developed" property, although it has been seen that developed and inhabited properties by 1914/1919 were virtually synonymous. In 1919 30 such developed properties were recorded, including a partially built-up house at the corner of Chmielna and Sosnowa streets, while another corner property; 1510, had been subparcelled and redeveloped around 1912 (6927), which means only 2 entirely new houses had been created between 1882 and 1914.

Although street block 196, as such, had already been developed by the time the 1882 census was conducted, the number of apartments and inhabitants increased more than twofold during the ensuing three decades. The mean estimation for 1882 of 4.56 residents per flat compares very closely to that of 1919 (4.38; marginally higher in 1914). This apparent compatibility conceals enormous changes which had been effected in the meantime both to the internal layout of the properties comprising street block 196 and, it would be contended to the social structure. It cannot be ruled out entirely, considering technological innovations brought about in domestic life among certain social classes, that standards of living in certain parts of the city, or at least in certain parts of certain properties, had not undergone improvement in the late-1800s and early-1900s; taken as a whole, housing conditions had definitely not been favourable before the decades of

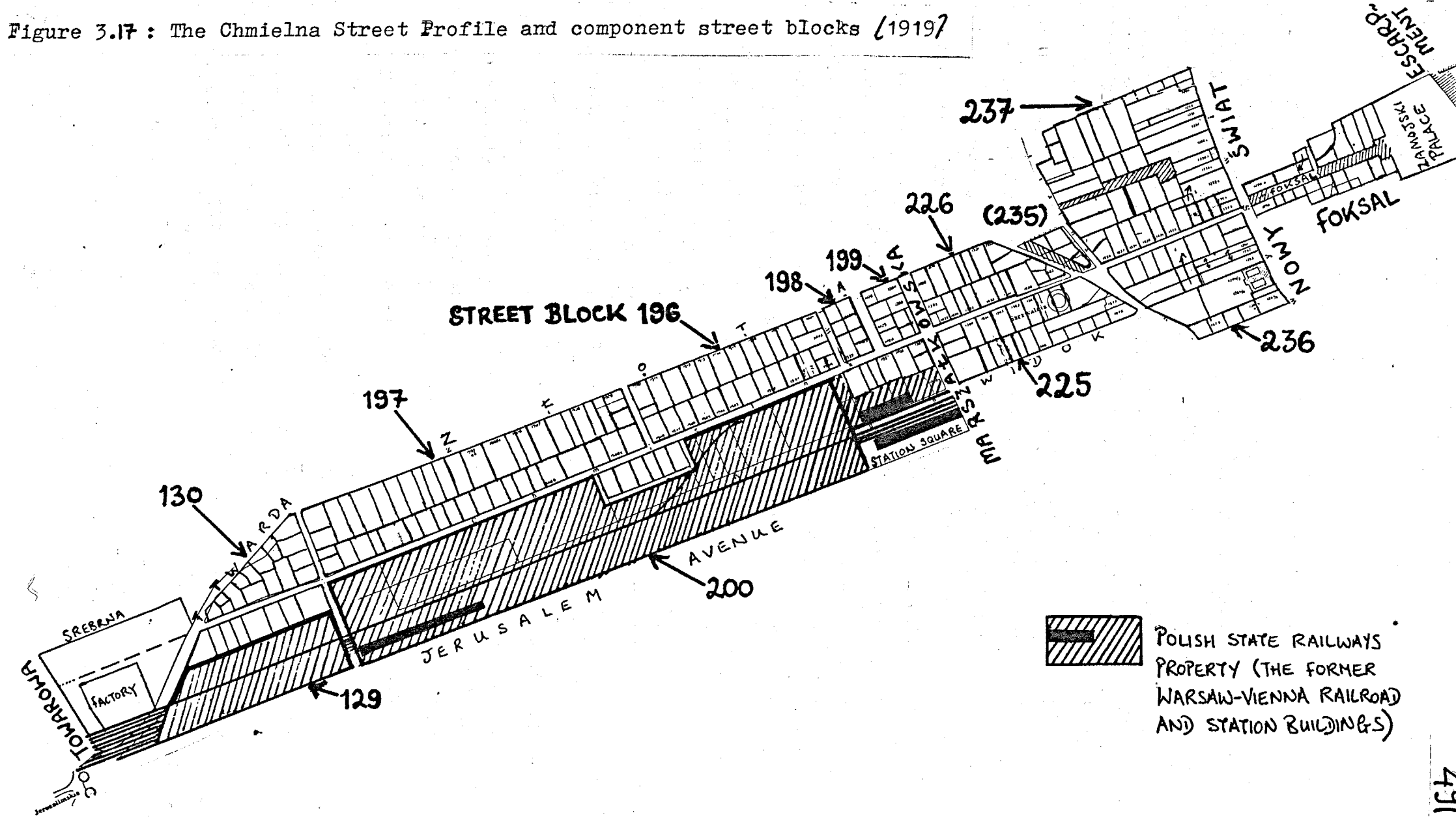
intensive speculation.


These modest calculations for just a small territorial unit within the Mid-Town provide solid evidence of the intensification of already high density urban development, changes brought about to the internal plan of many inner city tenements in the form of apartment subpartitioning and, inevitably, rising housing densities during the last two decades of the 19th. and first 14 or so years of the 20th. centuries. It may be reasonably supposed that the wealthier inhabitants of this part of the city would have tended to move to the younger southern districts of Koszyki and Ujazdów from the late-1880s or early-1890s, leaving their former apartments to be subdivided into 2- or 3-room flats for lower income bracket tenants. Nearly half of the 8th. commissariat's population was Jewish by faith and language, but a significant proportion of assimilating Jewish inhabitants came to settle from the 1870s on Śliska, Żłota and Chmielna streets, creating an ethnic-cultural buffer zone between the solidly orthodox Jewish or Polish working-class districts of northern and western Mid-Town Warsaw and gentile Polish residential areas stretching to the south of Jerusalem Avenue (cf. "Jewish population and territorial distribution" in Chapter 12). The sole remaining tenement on Chmielna (102/15490) immediately behind the post-war Marchlewski Street was put up in the 1890s for an Izaak Kornblum (cf. photographic documentation).

A similar pattern of flat subdivision and rising numbers of tenants has been observed in neighbouring street block no. 197; i.e. from 658 flats and 2884 residents in 1882 to 1105 apartments and 4023 people in 1919. In this case, however, a greater number of new tenements were

raised in the meantime. The social-class structure even in 1882 may be judged to have been less solidly middle-class in view of a group of mixed light-industrial and residential tenements on Chmielna street (especially 100/1549C, 112-114/1549I, 118/1548D and 120/1549I). An iron foundry operated on Złota Street from the early-1870s, producing an expansive break in the continuity of tenement house development in Grzybów district, clearly visible from pre-war aerial photographs (cf. tenement district T-7 in Chapter 6). The artisans' tenement on the corner of Złota and Żelazna streets has already been examined as a tenement case study and is illustrative of the geographical shift from middle-class Grzybów into proletarian Towarowa commissariats. The surviving properties at the extreme western end of Chmielna; i.e. nos. 122-130 originate from various building phases in Warsaw's urban development. Chmielna 128/1549F was already raised in the 1870s, while the corner house no. 126/1549H was redeveloped in the 1890s, 130/5359 in all likelihood not being developed until the early-1890s. These three houses, remaining for the time being a dilapidated ensemble, can be expected to have been composed primarily of 1- or 2-room apartments with a small number of 3-room apartments being located in the frontal house and primarily on 1st, 2nd, or 3rd floors (cf. street blocks 130 entry under "Towarowa"/*arrondissement* VI in annex table VII of Part I). Chmielna 124/6879 and 122/1549E originate from the early-20th. century and incorporated manufacturing activities on their lower storeys; the corner house was badly damaged during the September Blitzkrieg campaign of 1939 and only its groundfloor has been preserved.

Figure 3.17 : The Chmielna Street Profile and component street blocks (1919)




 POLISH STATE RAILWAYS  
 PROPERTY (THE FORMER  
 WARSAW-VIENNA RAILROAD  
 AND STATION BUILDINGS)



## Foksal Street Profile

The Chmielna profile, stretching until the 1950s some 2 kilometres from its intersection with Twarda Street to Nowy Świat, may be extended as far as the Vistula escarpment by including Foksal Street in this study (cf. Fig. 3.17). As a public road Foksal was not opened until 1880 when a former pathway traversing private gardens was widened and extended to Nowy Świat through the demolition of a town house belonging to the gardens' owner (Land Registry no. 1297). The private parkland was subparcelled and sold off by the new owner, the aristocrat Konstanty Zamoyski, who reserved for himself a generous area of land at the escarpment end (plots 1297, 1297F and 1297G) where a palatial residence in the French Renaissance style was put up in 1875-'77 (architect L. Marconi; since 1945 seat of the Polish Architects' Society, SARP). The original gardens, modelled in the 1770s on London's Vauxhall; hence the name which is another polonisation of a non-Polish word, have thus survived to modern times behind the late-19th. century and palace along the escarpment.

The first phase in Foksal Street's development took place in the late-1870s and is characterised by single-family residences designed by financially or socially less influential families eager to immitate Zamoyski's palace: the Przeździeckis (1297H), Wołowskis (1297E with a garden taking up plot 1297D), the Gorskis (1297J) and a second, tenementable property belonging to the Przeździeckis and raised in the later-1880s (1297K; at present still operating as the Soviet House of Culture). The 1882 census faithfully records only 1 "apartment" in properties: 1297 (the Zamoyski Palace corpus with 9

inhabitants); 1297F and 1297G (with 5 inhabitants in one of the palace outbuildings but as many as 40 in the second, who would have composed Zamoyski's domestic staff); as well as in the Wołowski villa (1297E, with 21 inhabitants), while in 1297H there were 3 "apartments" and 26 residents (different sections of the Przeździecki family? - e.g. elders in the outbuilding).

The second phase, in contrast to the first, was dominated by 4- or 5-storey tenements built in the 1890s or early years of the 20th. century. These tenements, nevertheless, were subdivided into large apartments which were rented by wealthy citizens, including doctors and lawyers. Numbers 15/5632 and 11/1297A were designed in the mid-1890s in a neo-Renaissance style as an obvious reference to the Zamoyski Palace (cf. Fig. 3.18) Numbers 19/5719 and 16/1298A were raised after 1896 in accordance with very rich architectural programmes conceived in a Gothic spirit by B. Brochowicz-Rogoyski (no. 19 revealing Ruskinian influences; no. 16 being festooned with motifs alluding to national glories from Poland's more distant past). The neighbouring houses Foksal 16 and 18, possessing the same Land Registry number, were put up for Count Ksawery Branicki, another Polish aristocrat who clearly had an eye for the main chance concerning property and land speculation. Branicki's own palace was situated on Nowy Świat (no. 18-10/1290-1) whose back garden, stretching towards the escarpment he had no qualms about having subparcelled and developed after 1903 with five tenements (Smolna 32/6419 to 40/1290-'1) of which he retained ownership until his death. One of these properties (Smolna 34/6418) has been selected in Chapter 10 as illustrative of middle-class rented housing in the



Mid-Town (cf. plate Xb). Foksal 18/1298A carried the predominantly 4-floor street profile as far as Nowy Świat; its eclectic facadal decoration was destroyed in the 1950s when the elevation was lowered to "harmonise" with the 3-storey cornice line of a reconstructed Nowy Świat. The second corner house (Nowy Świat 30/1296), originally designed in a neo-Renaissance style, again harking back to the 16th. century French domestic style of Zamoyski's residence, underwent similar changes after partial destruction in 1944, although the floor-plan of its lower storeys has not altered. The architecture and layout of the previous project is very reminiscent of a Berlin department store with upper storey living quarters: the Magdeburger Lebensversicherungs-Gesellschaft on the corner of Kronenstrasse and Charlottenstrasse, designed by L. Heim in 1885 (not preserved). The architect and also owner of the corner house Nowy Świat 30/Foksal 21, an Artur Spitzbarth, probably referred to German architectural publications extensively and in all likelihood based some of his conceptions of them; he may even have studied at the Berlin Bauakademie, like the considerably more prolific and better-known A. Huss (1846-1904) who was greatly influenced by one of his lecturers, the Berlin architect J. H. F. Hitzig.<sup>311</sup>

It is interesting to note that a modern Warsaw architect, Z. Walkiewicz, based in the "Warcent" municipal architectural surveying firm, assigns the authorship of both Foksal 13/6631 and 15/5632 to Spitzbarth, in which case just two architects: the aforementioned and B. Brochowicz-Rogoyski, directed the building of most tenement properties on Foksal Street, as well as in the immediate vicinity (i.e. Smolna Street and new tenement

infill projects on Nowy Świat 22-28) between c. 1895 and 1905. The architectural profession at this time was obviously highly regarded and the individuals involved well-placed in society. It is no accident that some of the more sumptuous, as well as architecturally most valuable town houses were raised by these people for their own use. Architects like A. Spitzbarth and E. Lilpop were evidently landlord-property speculators themselves, while B. Brochowicz-Rogoyski's professional success was based on his employment by the aristocrat Branicki; a contract not far removed from the feudal days when kings, barons, magnates or warlords were the patrons of architects and indeed the "Fine Arts" in general.<sup>312</sup>

A cross-section through the urban landscape of  
Mid-Town Warsaw

The distinct development of Foksal Street in contrast to the Chmielna profile's gradual evolution up to 1914 is symptomatic of the specific socio-economic forces shaping the former's building pattern and social structure. The Mid-Town area lying in the immediate vicinity of the Vistula escarpment tended to offer the most attractive residential environment for the city's wealthiest inhabitants. It is no accident that the Foksal gardens and palace property 1290/'1 belonged to counts whose speculative activities were instrumental in shaping urban development in this part of the city.

An escarpment belt has been identified as creating a distinctive constituent part of the Mid-Town urban

pattern. Situated immediately behind the former royal route of the Polish-Lithuanian monarchs, this belt has been divided into three sub-areas: in the northern inner urban core behind Krakowskie Przedmieście where magnates and nobles, as well as the kings themselves, had begun raising their palace complexes in the late-16th. century, later largely adapted into public-state institutes; in Nowy Świat commissariat where apart from some mainly 18th. century aristocratic residences, building took the form primarily of wealthy tenements put up during the study period; and in the southern inner-leftbank districts of Aleksandryjska and Ujazdów where property development was severely limited, since aristocrats continued to hold onto gardens and parkland (e.g. Frascati Gardens and the former Noble Institute, apart from the St. Lazarus Hospital occupying Prince Poniatowski's former gardens). Further south stretched the Ujazdów military hospital and a complex of previously Polish army barracks taken over by the tsarist forces (refer to plate VIIIa in Chapter 8).

Moving westwards from the escarpment belt and Foksal, eastern Chmielna Street was primarily the domain of merchants and tradespeople who had set up home and their town houses from the mid-1800s. Flats, at least initially, would appear to have been large, accommodating 5 or 6 residents in the 1880s (cf. Table 15 under street blocks 237, 236, 235, 226 and 225). The populations of street blocks, 236, 235, 226 and 225 declined marginally between 1882 and 1919 (assuming demographic decline during the 1914-'18 war in this part of Nowy Świat *arrondissement* at least to have been probably insignificant); a trend indicative of growing commercialisation in this part of the city centre. On the other hand, the mean number of flats

Table 15: Apartment subdivisions and number of residents 1882-1919

Street Block	mean number of apartments in properties		mean number of residents in properties		Street blocks grouped in Commissariats:
	1882	1919	1882	1919	
129	22.5	36.2	4.66	4.10	TOWAROWA
130	26.0	40.6	4.69	4.33	
200	20.9	25.8	4.65	3.89	GRZYBÓW
197	21.9	36.2	2.64	2.40	
196	25.6	36.8	4.49	3.64	
198	25.0	26.2	2.75	3.83	
199	16.5	26.3	3.68	3.20	
225	18.2	25.6	5.23	3.27	NOWY ŚWIAT
226	20.4	25.9	4.16	3.41	
235	18.0	24.8	5.38	3.80	
236	17.4	23.3	4.69	3.26	
237	14.1	22.8	5.22	3.91	

calculated for properties grouped in these same street blocks, as elsewhere in the Mid-Town, rose significantly (from just under 20 to around 25 by 1914/'19). This tendency, observed from calculations presented in Table 15, based on data recorded in Table 14, provides strong evidence that the subpartitioning of apartments was carried out in the properties of this part of the city, as elsewhere, from the 1880s until World War One. Only in street block 237 has a substantial degree of new property construction after 1882 been observed; i.e. in connection with the laying out of Hortensja street and the raising there of new tenements.

Flat subpartitioning between 1882 and 1914/'19 would also be presumed to explain a simultaneous increase in apartments and overall fall in the number of residents per apartment within properties grouped in the Grzybów street blocks designated 196-200. Blocks 198-199, lying immediately behind Marszałkowska Street, would have been subjected to equally intensive commercialisation of their lower floors as in blocks 225, 226 and 235-'7 fronting the eastern section of Chmielna Street. Housing conditions in large parts of Grzybów probably did not differ very greatly from those in Nowy Świat commissariat, only becoming progressively more crowded towards Żelazna Street and Towarowa factory district in the west. Also, properties were either larger or subdivided into greater numbers of flats in Grzybów *arrondissement*, surpassing 35 flats per property in blocks 196 and 197 by 1914. Greater diversity in the social-class structure would also have been characteristic of Grzybów tenements, with lower-income middle class or artisan tenants occupying back-tenement flats and upper floors, as well as basements (the 1919



census recorded 71 basement and 41 attic flats in street block 196; refer to Fig. 3.10 in Chapter 10).

The results obtained from this analysis of Chmielna with Foksal street profiles qualify this east-west cross-section through the Mid-Town's urban fabric (refer to Fig. 3.17). A general pattern has been identified of rising housing densities and deteriorating housing conditions with increasing distance from the affluent villas and tenements situated on Foksal Street in the escarpment's immediate vicinity; a pattern repeated over much of the Mid-Town (cf. "Urban form and housing types in Okopowa commissariats" in Chapter 12). Housing standards were evidently at their best next to the escarpment and at their worst near the factories located at the Mid-Town's western end. In between stretched the middle-class tenements of Nowy Świat and Grzybów commissariats; accommodating smaller-scale retail trading at the eastern end, larger commercial enterprises, hotels and offices on both sides of Marszałkowska Street, becoming thereafter predominantly residential or mixed-residential, eventually industrial towards the intersection with Żelazna Street.

The following broad conclusions have been drawn in relation to the evolving Chmielna Street profile:

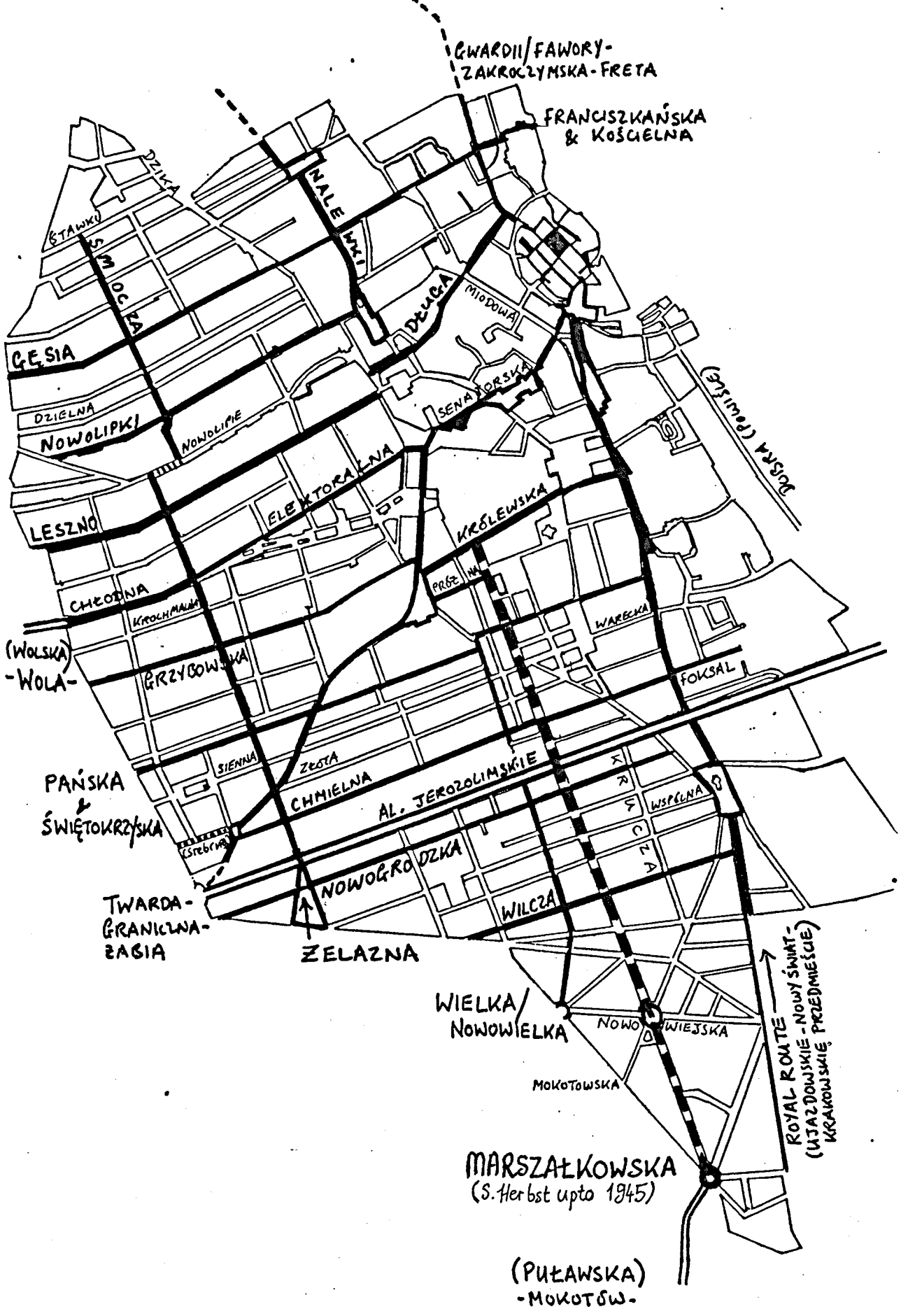
1. the population continued to rise in this part of Mid-Town Warsaw even after property had already undergone intensive development up to the early-1880s. New residents were accommodated as much - or even to a greater extent - by subdividing apartments into smaller dwellings as by raising new properties on remaining open land (street block intensification), putting up additional outbuildings as back-tenements or by adding new floors to preexisting buildings (plot intensification);

2. in central commercial quarters, such as the area composed of street blocks 236, 235, 226 and 225, the number of residents may have begun to decline by 1914 under the pressure of increased rents, which themselves reflected rising land values, while semi-commercial properties were subject to the same changes to internal plan as well as external layout as has already been observed in mainly or exclusively residential tenements;

3. calculations of changing numbers of apartments in properties and residents in those flats made for street blocks 235-'7m 225-'6, 196-200 and 129-'30, contrary to first impressions, are indicative of rising housing densities and progressively denser property development of apartment subdividing in this part of the Mid-Town during the period under investigation;

4. S. Herbsts's methodological approach to analysing Warsaw's urban development from the 18th. century to 1939 by focussing on street profile as a territorial fragment was undoubtedly well-founded. Reference to data released in 1919 according to street block territorial units fronting the street case study selected has been crucial in establishing even the broadest developments relating to the Chmielna profile's evolution up to 1914. Similar techniques as those employed above might be employed in street profile analysis of other principal arteries traversing the Mid-Town in relation to the street blocks in which properties composing such profiles were situated (cf. Fig. 3.19).

Figure 3.19: Street profile analysis of Mid-Town urban morphology and social structure



CHAPTER 12

INVESTIGATING AN ERADICATED URBAN LANDSCAPE

Jewish settlement up to 1821

A traditional affiliation between Warsaw Jewry and the future Western Mid-Town districts goes back at least as far as the setting up in the 17th. century of Leszno, Grzybów and Wielopole jurisdictions, functioning independently of the Old and New Towns where the *de non tolerandis Judaeis* had been in force since 1527 (cf. tenement districts T-2, T-5/6 and T-7 in Chapter 6). Similar associations also grew up elsewhere in the Mid-Town with the founding of jurisdictions in the future commercial area (Nowoówiecka, Ordynacka, Bożydar and Bielino), Powiśle (Solec, Tamka, Mariensztat), as well as on the East Bank (Gołędzinów, Praga, Kamionek-Skaryszew; refer to sub-study areas CBD-A, CBD-F in Chapter 5, T-10 in Chapter 6, "Powiśle riverside district" and "The rightbank inner-peripheral district of Praga" in Chapter 7).

Serving the needs of magnates and wealthy noblemen, developing their contacts with Jewish communities abroad and travelling regularly to annual fairs held in Leipzig, Frankfurt, Hamburg, Moscow and Constantinople, the Jews of Warsaw were able to profit from trade in luxury goods between Poland and Western Europe, apart from operating as moneylenders, army suppliers or agents to foreign embassies. Jewish participation in growing international commerce in the 18th. century may be presumed to have been instrumental in the city's expansion before the Partitions

(c. 24,000 inhabitants in 1754 rising to around 115,000 in 1792) even though the Judaic community remained comparatively small (8.3% of the registered population in 1792). Racial tensions in the late-1700s attest to greater Jewish presence in the city and a revival of the Polish merchant class. No clearly definable Jewish quarter as yet existed; partly because of the uncertain legal situation, not to be clarified until after the Prussian takeover (cf. "Jewish settlement in 19th. century Warsaw" in Chapter 6). The largest groups had settled by the 1790s in the immediate vicinity of (old) Pocieją Bazaar (now site of the Grand Theatre) in the 1st. (Old Town) and 3rd. (Krakowskie Przedmieście) municipal districts (cyrkuł).

The Napoleonic system guaranteed equal rights to the Jews. However, in the wake of their occupation of noble palaces and merchants' houses deserted in 1792 (economic crash) and 1794 (Kościusko Uprising), a district on the edge of the then central area was set up specifically intended for them, thus setting an apparent precedent for a separately-evolving Jewish commercial district beyond the gentile CBD (Żelazna Brama and Grzybów squares; cf. plate VIIIa in Chapter 8). The original quarter, including Królewska and north-Marszałkowska streets as well as the backlanes of Grzybów cyrkuł, was intended for wholesale merchants, landlords, manufacturers, army suppliers, bankers and other people in taxable professions, with additional stipulations that European dress be adopted, that residents should be literate in French, German or Polish and that children should be sent to state schools. Assimilation policies of this kind were stepped up during Polish home rule (1815-1831-1863) when three Jewish primary schools and a government-sponsored Rabbinical Seminary were

opened.<sup>313</sup> A divide in Jewish society between the acculturating minority and orthodox majority thus grew from the early-19th. century.

The assimilating element of Warsaw's Jewry became economically more influential as the century wore on; among other things it was responsible for initiating and developing numerous industries, contributed to railway construction and held a monopoly on the sale of salt and alcohol. In 1847 (for example) 17 of the 20 resident bankers and more than half of those engaged in commerce were Jewish. Powerful masonic lodges led by the first plutocratic figures of J. Epstein, N. Glückberg, S. Kronenberg were established. Social, cultural and material divisions within Jewish society grew wider, while aggressive policies introduced by the authorities, which included banning the wearing of certain garments in public even in "Jewish" quarters (1850) and stipulating that all tombstones should bear Polish as well as Hebrew transcriptions (1854, later reversed), further alienated the orthodox community.<sup>314</sup>

Designated areas of Jewish settlement 1821-1862

The registered number of Jewish residents began to increase sharply once the community, or "kehilla" had been officially recognised; from under 7000 in 1792 to 14,600 in 1810. The post-1813 Polish authorities were clearly alarmed and, under the direction of minister of police, I. Sobolewski, an area for Jewish settlement was demarcated in 1815 focussing on Nalewki, Franciszkańska, Gesia,

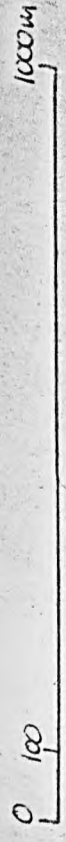
Dzielna, Nowolipki and Nowolipie streets, but also stretching to Inflancka St. in the north and the customs wall to the west (cf. Fig. 3.20). Jewish traders, however, would appear to have become sufficiently important to the city's economy for the city council to permit them to continue their activities in the new Pociejów bazaar next to Grzybowski Square and "behind the Iron Gate" of Saxon Gardens; i.e. on Eelazna Square and its neighbourhood. Properties in this part of the city undoubtedly remained Jewish even after the tsarist decree of 31st. July 1821, outlawing citizens of Judaic faith to reside on principal streets south of Leszno Street.<sup>315</sup> The two areas outlined above almost exactly coincided with the "Large" and "Small" Ghettos created from September 1940 and actually walled off from the rest of Warsaw one year later by the Nazis. Sobolewski envisaged in the North-Western District of Muranów an area fit to accommodate 72,000 people; until the mass deportations of 1942-1943 as many as 500,000 Warsaw and local Jews were restricted to the great and small ghettos.<sup>316</sup>

Although the North-Western District in the early 19th. century was still comparatively undeveloped, the authorities believed 11,000 people might be accommodated in the existing housing stock (mainly ground- or 1-floor wooden manor houses or cottages). The city readily took advantage of the situation to sell what land it owned in the region to Jewish buyers who thereafter put up new homes for themselves or newly arriving immigrants:

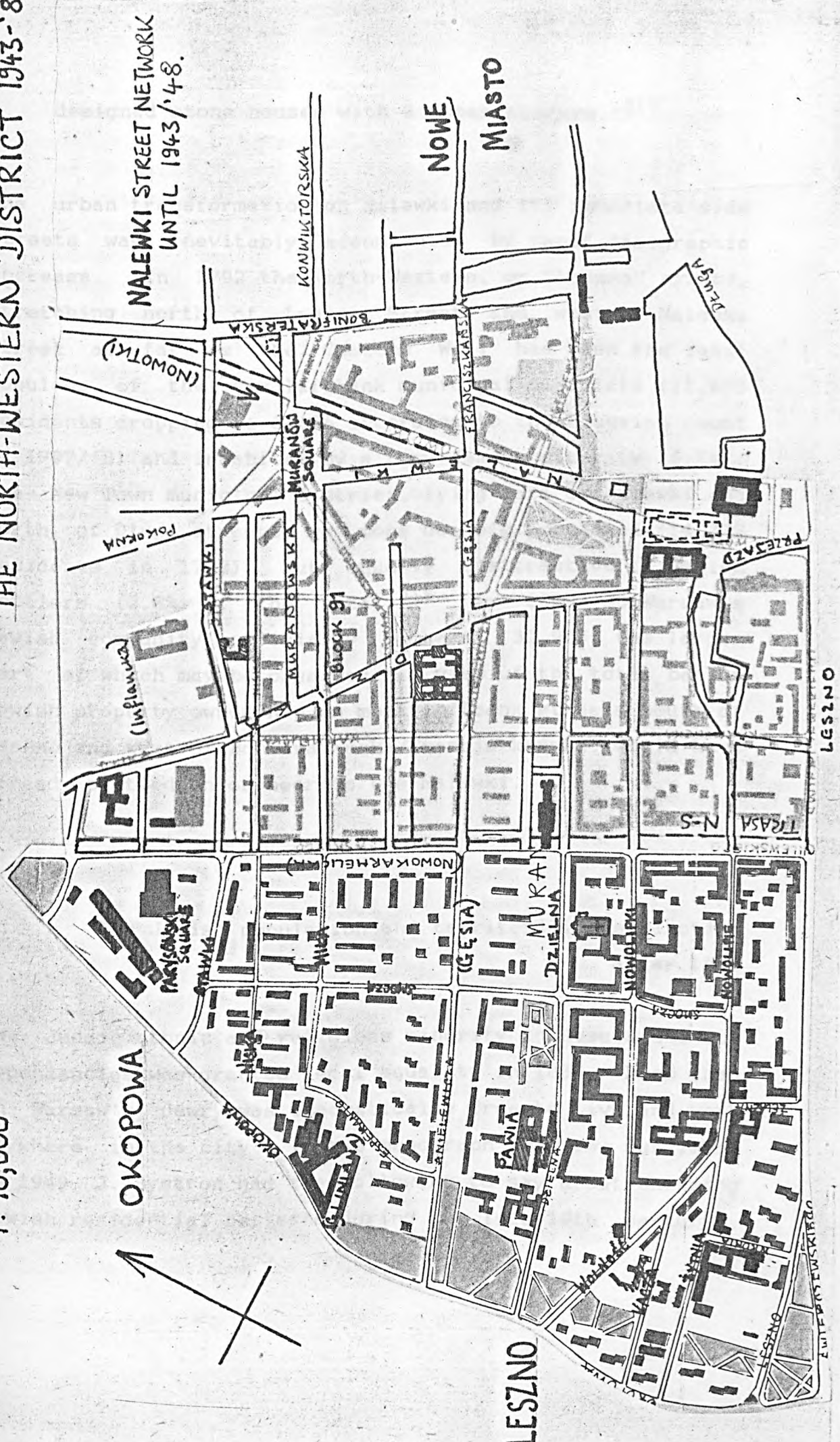
"Anybody absent from the city for three years and returning in 1825 could not possibly recognise this part of the city. (...) A dozen or so insignificant wooden constructions had been replaced by beautifully

figure 3.20:

THE NORTH-WESTERN DISTRICT 1943-'89



1: 10,000



NALEWKI STREET NETWORK UNTIL 1943/'48.

OKOPOWA

(NOMOTKI)

Pokojna

(inflamed)

PASYSKA SQUARE

KONWIKTORSKA

BONIFRATERSKA

MIRANOW SQUARE

MURANOVA

Blok 91

NOMOKARHELI

MIA

NOWE

MIASTO

(GĘSIA)

LESZNO

MURAI

DZIELNA

NOMOTKI

NOMOLLIE

LESZNO

TRASA N-S

PRZESAD

LESZNO

EMILBENSKIE

LESZNO



508

designed stone houses with 2 upper storeys."<sup>317</sup>

The urban transformation on Nalewki and its immediate side streets was inevitably accompanied by rapid demographic increase. In 1792 the North-Western, or "Leszno" *cyrkuł*, stretching north of Leszno Street and west of Nalewki Street as far as the Customs Wall had been the least populous of the six leftbank municipal districts (11,605 residents dropping to 6,166 according to the Prussian count of 1797/'8) and inhabited by a tiny Jewish minority (6.7%). The New Town municipal district, lying east of Nalewki and north of Długa streets, was more densely populated (14,772 residents in 1792), but equally unattractive to Jewish settlers (2.8% of the total.<sup>318</sup> By 1829/'30 Warsaw's Jewish community officially numbered 30,945, the larger part of which may be presumed, in view of the total ban on Jewish property ownership on most leftbank streets south of Leszno and west of Bonifraterska/Franciszkańska, would have already settled on or near to the Nalewki.

The Jewish population and territorial distribution  
after 1862

The Judaic ethnic and religious minority in Russia and its dependencies was granted legal equality in 1862. From then on Warsaw's Jewry was theoretically free to live and work anywhere in the city. In his monograph *Warszawa* published in 1949, J. Bystron had the following to say about changing Jewish residential patterns during the late-19th. century:

"Until the 1880s the Jews had been living on Nalewki, Gęsia, Franciszkańska and Świętojerska; streets such as Dzielna, Karmelicka, Nowolipie, Nowolipki, not even as yet mentioning Pańska or Śliska, had been inhabited exclusively by the Polish population (...). Gradually, the Jews begin to take over these districts; first they took over Pawia, then Karmelicka, parts of Nowolipie and Nowolipki, then Leszno, next Zabia, by which they penetrated as far as Grzybów where the so-called Pociejów, a busy centre of Jewish trade, operated before going on to Twarda, Grzybowska, Pańska and Śliska" (streets). "The Christian populace retreats towards the south, immediately occupying the streets lying between Jerusalem Avenue and Mokotów, settling more gradually in Wola, Czyste and Ochota."<sup>319</sup>

A growth in the number of Jewish inhabitants in Leszno, Mirów and Grzybów districts undoubtedly did occur at this time. However, to claim the streets beyond Nalewki *cyrkuł* were "exclusively" Polish is a very contentious assertion on that author's part. Bystroń fails to back up his statement with statistical evidence; he could have claimed there was not any, although there undoubtedly was before 1944 when he compiled his materials for the publication. He claims Dzielna, Nowolipki and Nowolipie streets to a large degree had consisted up to the Jewish "takeover" of "landed citizens who moved into the city to pass their older years" as well as "many" students. The fact that old peasants and no doubt impoverished students were living, according to Mr. Bystroń, prior to the 1880s in quarters situated on the very edge of the then built-up area suggests urban development was still in its earliest stages and did not intensify until "the Jews" began to put up tenement houses on the aforementioned streets. The

profiles of Dzielna, Nowolipki and Nowolipie already stretched as far as the old customs wall; i.e. not far short of 2 km, and the author's statement rather than suggestion that the entire profile of each of these streets could have accommodated "exclusively a Polish population: is an unjustifiable generalisation. The Jewish community did not live only in the Nalewki *cyrkuł* even before 1862, while the 1815 plans of Sobolewski, followed up by Alexander I's 1821 decree, had evidently permitted Jewish settlement north of Leszno (i.e. on Nowolipie, Nowolipki and Dzielna streets). F. Sobieszczański estimated that in 1847 17,715 people were living in the Nalewki, while the Jewish population at that time would have already exceeded 40,000 and may already have surpassed 50,000.<sup>320</sup>

An element of truth, nevertheless, remains in the above quotation in so far as the great Jewish "takeover" of streets beyond Nalewki *cyrkuł* does coincide with the developing, although somewhat earlier; i.e. from the mid-1860s or 1870s, of Pawia, Karmelicka, Nowolipie and Nowolipki streets (refer to new building plots demarcated or subparcelled from earlier plots in annex table no. 4; in particular Land Registry nos. 2340A-2518A in Leszno *cyrkuł*, or T-2 sub-study district). Bystron makes no mention of Elektoralna, Graniczna, Skórzana, Rynkowa, Ptasia, Zimna and Krochmalna streets, together with Żelazna Brama and Grzybowski squares, where Jewish settlement in the immediate vicinity of Warsaw's main market and largest bazaar had been continuous since the 18th. or even 17th. centuries, in spite of the restrictions on property ownership in force between 1821 and 1862. Żabia, Twarda, Pańska and Śliska - although it is doubtful Grzybowska was ever "exclusively" gentile - may well have become Jewish streets after 1862

(rather, again than "the 1880s"), but Jewish property investors, freed from the pre-1862 restrictions, would have been at least partially responsible for putting up new houses, and especially tenements, on these streets (cf. in annex table 4 new plots demarcated/subparcelled before 1869 with Land Registry nos. 1087C-1221A, also 1462A-G in Grzybów *cyrkuł*, as well as Table 5, covering the period 1869-'82, under nos. 1088AB-1467G, also in Grzybów *cyrkuł*).

The movement of gentile residents south of Jerusalem Avenue as far as Mokotów would agree with patterns already emphasised in this thesis of middle-class (and Christian) occupation of tenements in Koszyki and Ujazdów municipal districts raised somewhat later than those in the northern and western Mid-Town regions (refer back to sub-study districts T-9 and T-10 in Chapter 6, as well as "Mokotów outer tenement district" in Chapter 8). The settling of Polish residents in Wola, Czyste and Ochota would have been connected with industrial development in these regions from the 1890s. The "Polish" population here, as well as at the western ends of Leszno, Nowolipie/Zytnia, Nowolipki and Dzielna streets, would have been socially and culturally as distinct from the "Polish" middle-class dwellers of Koszyki and Ujazdów, apart from much of Nowy Świat and Aleksandryńska districts, as the orthodox Jewish communities of Grzybów, Mirów, Leszno and Nalewki *cyrkule*. Bystron in his own personalised, and probably semi-biographical, account of spatial-ethnic distribution in leftbank Warsaw fails also to refer to Sienna, Złota and Chmielna streets, where tenement house owners and tenants alike would appear to have been at least in part acculturated, Polish-speaking Jews (cf. "Western Chmielna Street Profile" in Chapter 11).

Jewish proletarian and Polish working-class citizens

apparently lived in close proximity to each other in the more westerly quarters of Mirów, Leszno and especially Okopowa *cyrkuła* (which was also known as the Powązki district, according to the same distinction as applied to Wola between "municipal" and unincorporated built-up areas (*Powązki pod cyrkulem - Powązki pod śminą*); refer back to "Wola Suburb" in Chapter 7). B. Singer offers a bitter, but objective reflexion on this social-ethnic meeting point:

"Moving nearer Powązki, on Parysowska Jewish wretchedness, as though one were already leaving behind the ghetto, came into contact with Polish poverty. Here Jews and Poles alike were brought together by a common fate awaiting them after death. The Jew of Powązki" (i.e. Okopowa municipal district) "was too poor to be buried in the better cemetery on Okopowa. The Pole of Powązki did not have the money to buy himself a place in Powązki cemetery. Judaic and Catholic corpses of the poor were thus transported by the same route across the bridge to the neighbouring cemeteries in Praga."<sup>321</sup>

It is apparent from Bystroń's quote that published information by academics or other publicists personally acquainted with the pre-1939 city, or at least certain aspects, social, economic, political, cultural, architectural, etc., but potentially with a biased view of the Jewish question, must be treated with great caution. Relevant observations or personal recollections must be sifted from the oversubjective and the plainly exaggerated. Another, more disturbing example of published half-truths coming from the interwar Polish generations was printed in 1922 by Dr. Mieczysław Orłowicz, president of a Warsaw branch of the Polish Tourists' Association and author of a

number of very widely read baedekers to cities or regional areas in the Second Republic:

"The true 'Jewish district' is grouped around a whole series of dirty and ugly streets whose centre is the Nalewki, lending its name to the entire district. They" (these streets) "are built up with mainly styleless tenements from the second half of the 19th. century in which the poorest Jewish proletariat live in dense masses. Polish is heard quite infrequently; a broken German known as 'jargon' dominates or even Russian, spoken by migrants arriving here after the Russian pogroms and known in Warsaw as 'Litvaks'. The streets of this district present an image far removed from the European city; the semite types one encounters in long gaberdines and round, characteristic caps are more reminiscent of the Orient."<sup>322</sup>

"Semite types" sounds as badly in Polish ("typy semickie") as it does in English and surely, even in 1922, was not the kind of language a key figure of Poland's still young state tourist organisation should have been using at all, let alone in a widely distributed publication, translated into French. The author's definition of the Yiddish language is hardly worth commenting upon. The oriental images - and we presume Orłowicz had the opportunity to travel widely, if only throughout the former Russian Empire - were no doubt well-founded, supported by the pathetic number of photos from the Nalewki one can still find in Warsaw archives or museums (a single profile made during the German occupation of 1915-'18 is presented in Chapter 11). The Okopowa and Leszno *cyrkule* also forming an inseparable part of the north-western District were not known as Nalewki, nor is there cause to believe the Nalewki, Franciszkańska and

Gęsia, forming the commercial hub of Muranów, were any dirtier or uglier than gentile Nowy Świat, Chmielna or Leopoldyna streets. It has been seen that the average number of residents per room in Nalewki properties was just marginally higher than in the gentile middle-class central and southern Mid-Town district, while mean apartment sizes were very characteristic of the middle-class tenement house belt (refer back to cartograms IV<sup>d</sup> and IV<sup>f</sup> and relevant text in Chapter 4). As such, Orłowicz's "dense masses" did not live on the Nalewki, although they might have traded or shopped there. Bernard Singer, who actually lived in the Nalewki and did not, as Orłowicz was almost certainly accustomed to doing, only take the number 8 tram from the centre to the RC cemetery in Powązki via Dzika Street, presents an economical but precise description of the Singer family flat:

"(...) we lived at Nalewki no. 37, a large house with three courtyards. Three rooms and a kitchen for seven people was not considered in those days a crowded flat."<sup>323</sup>

Nor would a 3-room apartment inhabited by seven people, including the servant, have been regarded as crowded in other, Christian parts of the Mid-Town. Orłowicz's dirty streets and crowded houses existed in the North-Western District, but not in Nalewki *cyrkuł*; rather in Okopowa (*Powązki pod cyrkułem*) district on and behind Smocza Street, which Orłowicz, probably vindictively, referred to as "a true pearl of the Jewish district". Like Bystroń, Orłowicz was too prone to overgeneralisation, only in the latter's case a certain rancoeur is detectable in the

choice of words. The author, for example, described Miła Street as a "disgusting back alley" when it is enough to refer to the 1:2500 scale base plan to discover this street stretched for over a kilometre, in a regulated, straight line and was consistently built-up with tenement houses as far west as the crossroads with Smocza after which the profile was partially undeveloped or composed mainly of wooden houses (cf. plate VI<sup>a</sup> in Chapter 6). *Miła* in Polish means "pleasant", or plainly "nice".

The unemotional, almost existential realism of B. Singer's semi-autobiographical memoirs provide a uniquely revealing account of life in the Nalewki, written some 17 years after the author's escape from Nazi-occupied Poland and in the full knowledge that the Warsaw he had known had completely vanished. Singer was brought up and spent a significant part of his adult years in the Nalewki, but apparently never felt a part of the life or various lifestyles he so effectively illustrates in the deceptively entitled "My Nalewki" (*Moje Nalewki*); a person who spoke Yiddish with some difficulty, but never learned to adequately read it; a semi-polonised Varsovian who could hardly have considered himself a Pole. He lived according to certain Polish customs and worked as a Polish-language journalist, bravely criticising the right wing "Sanacja" regime of 1926-'39. Only in Singer is it possible to read of the Nalewki community's mistrust of the Jewish inhabitants of Grzybów, who were regarded as "goyas" for their strong commercial contacts with the Polish population, even though the Grzybów Jews tended to be no less orthodox in their observance of religious rites as the former.



"Storekeepers and businessmen frequently lived near their firms. They prayed not far from their homes. They looked on the Jews from Lithuania or those forced to emigrate from Russia with jealousy and disdain, for it seemed such people outdid them in shrewdness. The Lithuanian Jews on the whole outclassed Polish Jews both in wits and culture. The Litvaks were concentrated on Karmelicka, Dzielna and Nowolipki.

Everyone was afraid of army recruitment, the police, the Poles, their own austere God. They were even afraid of the" (reformed) "Synagogue on the Tłumackie. It had been raised, after all, on a slight eminence and not *De profundis* ('Out of the depths I cry to you, Oh Lord'), it had a choir, organ, a cantor, a cropped preacher, who had the courage to invoke the Lord in Polish.

A Jew's movements beyond his district were a great venture. The Litvaks, speaking good Russian, were entrusted by Polish Jews to deal with Russian clients; they were afraid themselves of the policeman's language."<sup>324</sup>

The developing urban landscape of Nalewki c. 1862-1914

The first main building phase on Nalewki took place during the early-1820s in the wake of a far-reaching transformation to land ownership patterns. In Fig. 3.21 property divisions and the social-ethnic character of their owners from the years 1790 (based on the "Schema" measurements of property and real-estate parcels) and 1819 ("Registry of Warsaw Properties") have been compared.<sup>325</sup> Although surnames of 12 Nalewki property owners listed in 1819 had Polish surnames, most of them,

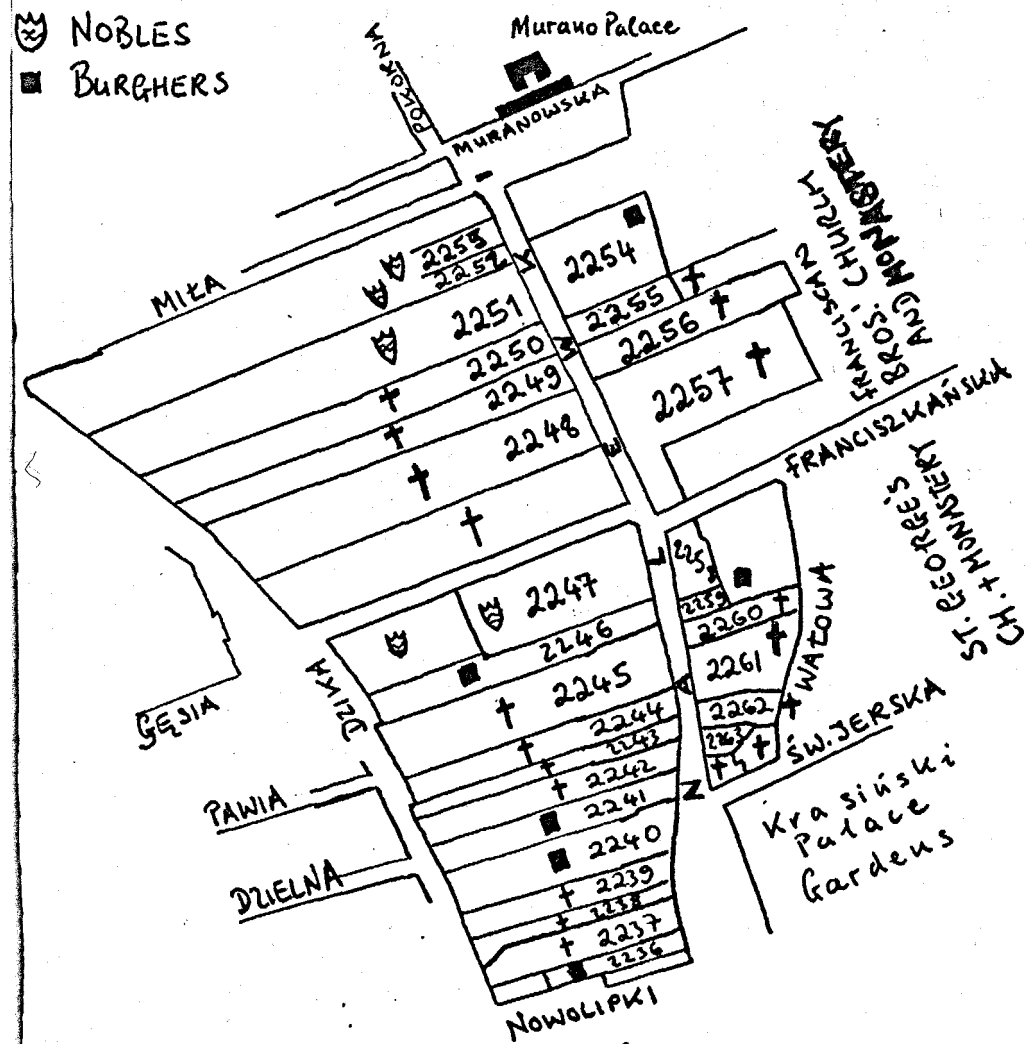
Figure 3.21: PATTERNS OF REAL-ESTATE OWNERSHIP IN NALEWKI 1790-1819.

A. Land ownership in 1790 ("Schema")

† CHURCH LANDS

☞ NOBLES

■ BURGHERS



B. PROPERTY OWNERSHIP IN 1819 ("Wykaz nieruchomości")

Ulica Nalewki

- 2236 Pelletier. Kamienica, stajnia i wozownia, drewniane
- 2237 Ditto. Dworek, w tyle podwórza komórki dREW[niane]
- 2238 Godlewski. Dworek bez przyległości
- 2239 Zadera. Kamienica, stajnia i wozownia murowana
- 2240 Seternikow. Kamienica i dworek, w podwórzu wozownia i szopa drewniane
- 2241 Icyk Mławski. Dworek, oficyna w tyle podwórza murowana, stajnie i wozownie murowane
- 2242 Knychtysz. Kamienica i komórki drewniane
- 2243 Grzybowska. Dworek, oficynka murowana, komórki drewniane
- 2244 Marx. Kamienica, dworek w tyle ogrodu, komórki drewniane
- 2245 Zaurman. Dworek, stajnie i komórki drewniane
- 2246 Podbielski. Dworek z oficyną, stajnie i wozownie dREW[nia[ne].
- 2247 Roztworowski. Kamieniczka i komórki drewniane
- 2250 Woroniewicz. Dworek w podwórzu i komórki drewniane
- 2251 Tymiański. Dworek, stajnia i wozownia drewniana
- 2252 Brodel. Kamienica, dworek i komórki drewniane
- 2253 Bielawski. Dworek, komórki, szopa, drewniane
- 2254 Borakowski. Dworek i wozownia murowana
- 2255 Hauszylt. Dworek drewniany i komórka
- 2258 Brzowski. Kamienica, młyn koński, stajnia, wozownia i komórki drewniane
- 2259 Zaręba. Kamienica, szopa i komórki drewniane
- 2260 Chorkowski. Dworek i stajnie drewniane
- 2261 Miller. Dworek bez przyległości
- 2262 Majzner. Kamienica, stajnie i wozownie murowane

15  
115

together with the remaining 9 owners, were probably Jewish; e.g. "Icyk" or Izaak Mławski. Ten "stone houses" (*Kamienice*) had already been raised on the Nalewki by 1818/1819; these were to be immediately followed by 1- or 2-floor town houses almost completing the street-facing profile of Nalewki, along with neighbouring Wałowa, Świętojerska, Nowiniarska, Franciszkańska, Gęsia, Dzika and Bonifraterska streets. Elsewhere, some lower houses, designed in the neo-Classical style were put up at the eastern ends of Dzielna, Nowolipki and Nowolipie streets, but apart from these building consisted almost exclusively of wooden manors or cottages.

Three main questions arise in the subsequently evolving landscape of Muranów and in particular its commercial hub on Nalewki Street:

1. to what extent was the original urban character arising in the early-19th. century retained during Warsaw's large-scale urban expansion up to 1914-'15 when the Jewish population was permitted to settle elsewhere in the city beyond the North-Western and Grzybów/Żelazna Brama districts?

2. what were the implications for population distribution and social structure in the Nalewki of urban development between 1862 and 1914?

3. did building phases in Jewish quarters, and particularly Nalewki, follow patterns observed for other Mid-Town districts (i.e. prototype tenement building in the 1860s, boom era of the 1870s, 1880s slump, 1890s revival succeeded by the pre-war boom c. 1909-'14/'15)? Or did property development in Jewish districts follow independent patterns, thus producing possibly specific building forms?

If E. Sobieszczański's estimated 17,715 Nalewki *cyrkuł* residents in 1847 was realistic, the population increased by a further 10,000 or so during the 1850s and 1860s to 28,674 (1868); a rise of 159%, compared to an approximate demographic growth rate for the city as a whole during the same year of just 103.3%. Sobieszczański's estimations have been criticized as over-exaggerating the 1847 population, although he did at least take into account temporarily-registered citizens whose existence was not recognised by official sources until 1861; with the result that an unrealistic leap in the number of inhabitants was recorded between 1860 (162,800) and 1861 (230,300), with a quite dramatic fall in 1862 (207,900; refer to "First generation immigrants (...) " in Chapter 3). Bearing in mind the population of Nalewki rose from between 5,000 and 10,000 in the early-1820s (including Jewish inhabitants moving in the wake of the 1821 decree to Nowolipie, Nowolipki and Dzielna streets lying outside the Nalewki *cyrkuł*), to 18,000 in the later-1840s, it would seem the district was expanding rapidly and comparatively consistently up to the 1860s (nearly 30,000 inhabitants), compared to Warsaw as a whole (1820: 100,000, late 1840s: c. 163,600 or 246,370(!), 1868: 254,600). It is worth noting that Nalewki recorded the highest proportion of permanently-registered inhabitants; i.e. 23,200 compared to 5474 "temporary" residents; contrasted with 187,640 permanently registered and 63,944 "temporary" citizens for Warsaw as a whole - a fact suggesting greater demographic stability prevailed in the Nalewki than in most other municipal districts.

Although demographic statistics are fragmentary and not entirely reliable, it would seem that while the

demographic increase rate between 1821 and 1862 in Nalewki was probably greater than in any other part of Mid-Town Warsaw, population distribution within the main Jewish district was stable; i.e. once a Jewish immigrant settled in the 4th. *cyrkuł* he/she remained there, even after 1862 when such people were allowed to move to other districts. These demographic changes were accompanied by building activity, particularly during the 1840s and 1850s, apart from in the 1830s when the building industry had experienced long stagnation following Russian suppression of the Polish November Uprising; a stagnation which probably made less of an impact in Jewish Warsaw. In 1850 the Russian market had been opened to goods produced in the Congress Kingdom; consequently, Jewish traders would have been improving their contacts with Russian clients, probably employing already "Lithuanian" Jews as middlemen. Some of the earliest barracks-housing would be expected, therefore, to have been appearing in the 1850s on the Nalewki and its neighbouring streets at the same time, or even earlier, than the tenements identified by S. Herbst on Marszałkowska Street.

In tracing the evolution of "the modern house type", Herbst took into full account the influence of building regulations and the watchdog tactics of the home rule authorities on private speculative activities during the 1850s and 1860s:

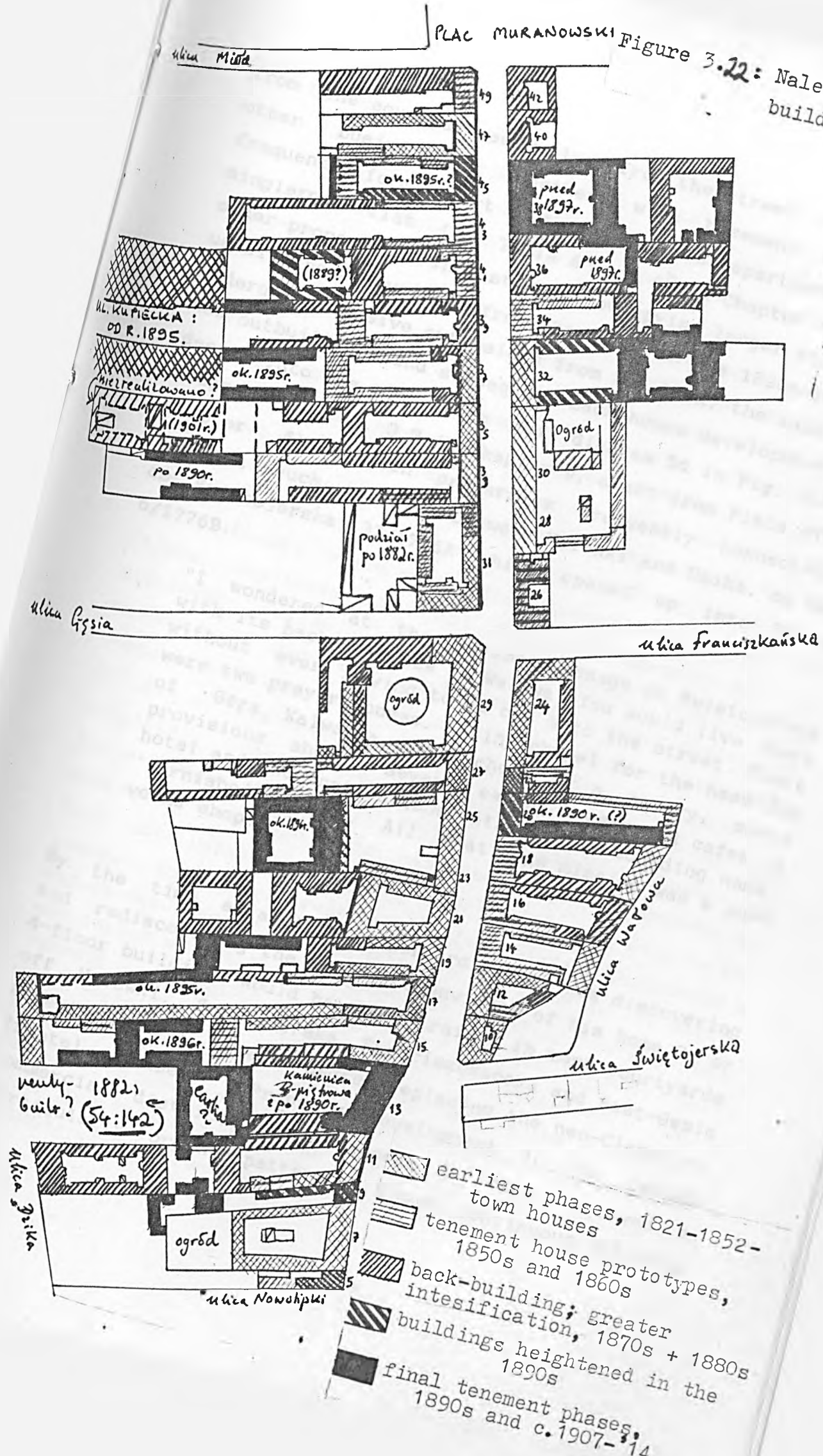
"The" (Building) "Council, exceeding its authoritative competence, successively intervened in cases where property speculation and the immunity from punishment arising from middle-class liberalism had led to excessive exploitation of real-estate(...)." <sup>328</sup>

Several incidents are recorded of the Building Council's attempts to block planning permission for tenement properties on Marszałkowska; e.g. with no. 122/1396A in 1858 and no. 100/15740P in 1865. In the case of P. Lothe's corner house with a double courtyard (cf. diagram 5a in Fig. 3.2) the Council recommended that the project should go ahead only if the owner agreed it should be 2 whole storeys lower (!), on the grounds that healthy sanitary conditions could not be guaranteed otherwise and that two connecting 4-storey buildings complexes were a fire hazard. A set of 7 interconnecting 3-floor buildings arranged around two closed courtyards, nevertheless, was put up in the same year, composed in 1882 of 33 apartments and housing 215 people. Within three years the Building Council was to be disbanded by the tsarist government.<sup>327</sup>

Land divisions on Nalewki, Świętojerska, Franciszkańska, and Bonifraterska streets were generally more expansive than those in the Christian commercial centre. Multi-apartment building forms could be accommodated without an immediate need to resort to increased vertical construction. Tenement house evolution during its earliest phase (1850s and 1860s) thus followed a horizontal rather than vertical direction: the first tenements may be assumed to have been 2-floor extended outbuildings connected to frequently older frontal houses originally put up in the 1820s or 1830s (cf. plate XII - stages in the building up of street block no. 91 - and Figs. 3.22 and 3.23 - Nalewki Street Profile).

Almost all houses on Nalewki, Świętojerska and Franciszkańska, as well as Wałowa, Gęsia, Bonifraterska and Dzika streets were occupied on their ground- and even upper-floors by shops, warehouses and workshops, entered

Figure 3.22: Nalewki Street Profile, building phases upto 1914



from the courtyard as well as from the street. Retail and other businesses, together with basement workshops, frequently formed part of the residential apartment or even singleroom flat (cf. Table 6<sup>a</sup> and 6<sup>b</sup> in Chapter 4).. Such older properties, in most cases occupying larger plots, had usually been developed from the front in the 1820s-1830s to undergo successive extensions from the back, the raising of new outbuildings and subsequent back-house development ever deeper into the long plots (cf. diagram 5d in Fig. 3.2 and diagram 4 of Fig. 3.3 in Chapter 9, apart from Plate VI<sup>a</sup> in Chapter 6). Such properties frequently connected 2 streets, such as those between Nalewki and Dzika, as well as Świątojerska 32/1776A which opened up into Wałowa 6/1776B:

"I wondered at the Frieman passage on Świątojerska with its back entrance on Wałowa. You could live there without ever having to go out onto the street. There were two prayer houses, a tiny chapel for the hassidim of Góra Kalwaria, two cheders, a bakery, small provisions shops, several eating houses and cafes, a hotel and two institutions with a funny-sounding name: 'furnished rooms'. All that was missing was a pure vodka shop."<sup>328</sup>

By the time an adolescent Bernard Singer was discovering and rediscovering the immediate environs of his home 3- or 4-floor buildings would have been raised in most courtyards off Nalewki, Świątojerska, Franciszczańska and east-Gęsia streets; to a lesser degree replacing the neo-Classical frontal houses. Property development in the Jewish commercial districts would appear to have followed a particularly organic pattern of almost continuous building



and back-building throughout the 19th. century. It is highly charactersitic of the Nalewki urban profile, constituting one of Warsaw's most densely-populated and most intensely built-up districts, possessed remarkably few properties exceeding 4 floors in height. A mere 39 5-floor buildings were counted during the 1919 survey, and these would have been located almost entirely on Kupiecka new street laid-out in the 1890s and developed thereafter in two main stages, the first involving the construction of mainly 5-floor properties on the north side (5 4-building component and 2 3-building houses; cf. Plate XII)

Intensive development of outlying streets in the 4th. commissariat; i.e. Miła, Muranowska and Niska, to a lesser extent Stawki which marked the southern boundary with the Citadel esplanade, did not begin in earnest until the mid-1860s, following a pattern far more typical of that observed in other Mid-Town tenement belt districts. Here, comparatively consistent 3- or 4-floor tenements consisting of 4, or less frequently 3 building components had almost completely taken over the street profile by the early-1880s; subjected only in individual cases to subsequent extensions or heightenings. Sierakowska was laid out before 1882 but actually built up only in the 1890s. Kupiecka Street represents a classic example of a cul-de-sac access road opening up new plots in the middle and larger street block (designated no. 91 in 1919). These streets, including Dzika to a lesser extent, were considerably more residential in character. Miła Muranowska and Niska especially had come by the early-20th. century to be associated, if to a more marginal degree, with genteel Jewish urban life analoguous to that of the "middle-class Warsaw man" in his 3- or 4- room apartment on

Krucza Street (cf. Aleksandryjska and Ujazdów tenement districts (T-10) in Chapter 6).

During this same period (1860s-1870s, followed up during the 1890s) the street profiles of Nowolipie, Nowolipki, Dzielna (in Leszno commissariat), to a lesser extent Pawia and east-Gęsia (Okopowa commissariat) had become built-up with mainly 3- or 4- floor tenements occupying plots of similarly restricted dimensions to those fronting Miła and Niska streets in Nalewki commissariat (i.e. c. 25 - 30 m wide x 30-50m deep). Later advances towards Wola in the west or infill projects of 4, 5 or at the very most 6 floors, dated from the late-1890s or the early-1900s. A tentative relationship would appear to have existed between the breakdown of tenement property consistency (rather than uniformity) and a growing presence of Polish working-class residents at the western end of Leszno and Okopowa districts near the former customs wall (Zytnia, Kacza, Wolność, also Gliniana and Kampinowska streets). The east-west running profiles of Nowolipie, Nowolipki, Dzielna, Pawia, Gęsia, Miła and Niska streets were solidly Jewish-merchant/trading class in the eastern and middle sections, giving way at their western ends to Jewish and Polish proletarian districts (Smocza Street as a northern extension of an apparent social/class demarcation line between middle-class and proletarian Warsaw defined in the Western Districts by Żelazna Street? - cf. plate VIIIa in Chapter 8, "Western Chmielna Street Profile" in Chapter 11 and plates VI<sup>a</sup> - VI<sup>c</sup> in Chapter 6). The Okopowa district provides a specific spatial case study area of lower-class Jewish life and housing conditions evolving from the mid-19th. century (western extension of Miła, Niska and Stawki, north-Dzika, Wołyńska, Ostrowska, Smocza,

Nowokarmelicka, Parysowska streets etc.).

The specific qualities of the Nalewki tenement

The One-Day Census of 1882 recorded 31,763 residents in the 4th. *cyrkuł*, suggesting a rise since 1868 of just 2,999 people. This is an unexpectedly low increase rate during a period when Warsaw's overall population was augmented by over 100,000 mainly rural immigrants (1868: 251,684, 1882: 373,881). The number of inhabitants rose substantially in most municipal districts; e.g. in Leszno/Okopowa (from 30,395 to 66,15) and Grzybów/Towarowa/Koszyki (37,996 to 73,211). Even the Old and New Towns together with the northern-central districts, already densely populated and built-up, experienced more dynamic demographic changes in the 1870s than the Nalewki (i.e. from 39,259 to 43,849 in the Old Town/Krakowskie Przedmieście and from 25,769 to 31,979 in the New Town and Długa-Bielańska-Senatorska quarters). It is likely that a final extending of the Russian Citadel's militarised esplanade in connection with the laying of the peripheral railroad after 1871, which led to the buying up and demolishing of property of Pokorna and Kłopot streets, encouraged some Nalewki residents to move to other districts; (e.g. to Dzielna, Nowolipki or Nowolipie in Leszno commissariat whose population more than doubled in the 1870s.

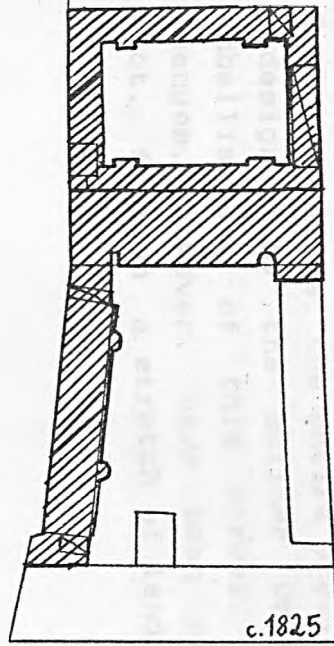
The 1882 census results attest to the specific urban and social make-up of the 4th. commissariat. 33.19 apartments per developed property were recorded in this year, compared to an average for Warsaw of 19.05, while the

mean number of tenants in Nalewki properties was calculated at 180.46; almost twice that of the next highest recording in the city of 98.46 (the 8th. *cyrkuł*). Had the Nalewki in fact reached a certain point of saturation in its urban development - at least in relation to that of other parts of the city which were still in the course of taking shape? If the population had increased throughout the 1870s by only 3000, compared to more than 100,000 for Warsaw, housing and population densities would have been equally great in the 1860s and the contrast between this district and the rest of the city even greater. In 1882 6008 apartments were counted which meant the average Nalewki flat accommodated 5 people, whereas the mean for Warsaw was almost the same: 4.7. Unfortunately, data relating to rooms in apartments was compiled only for the city as a whole. However, no grounds exist for assuming housing conditions were any worse in Nalewki simply because houses contained more apartments and more people lived in properties than elsewhere in the city. As such, Nalewki properties were physically greater than those prevailing in other Warsaw districts.

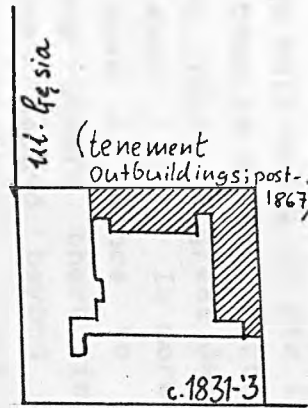
The 1882 census results offer clear evidence that the Nalewki was Warsaw's first tenement-barracks district. That is not to say that Jewish house owners in the North-Western District were setting a precedent in the mid-19th century for property speculators in Warsaw. The concentrating of apartments and residents in single properties would have arisen, at least in part, from this district's specific ethnic composition, as well as until 1862 its exceptional legal situation. In 1882 the percentage of residents faithful to the Judaic faith was 88%; by 1913 it had risen to 92%. It has been observed

Figure 3.23:  
Evolution of Nalewki Street Profile  
1821-1914

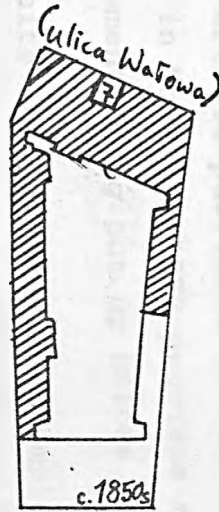
120m  
110  
100  
90  
80  
70  
60  
50  
40  
30  
20  
10  
0



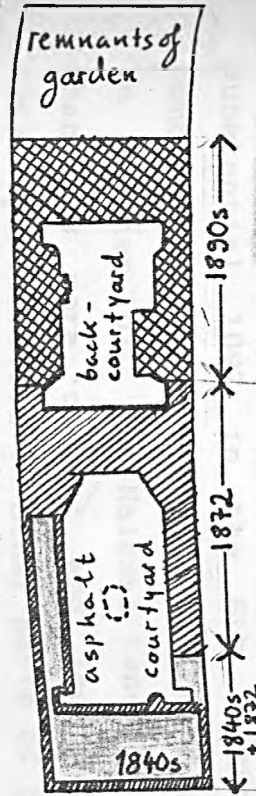
c.1825



c.1831-3



c.1850s

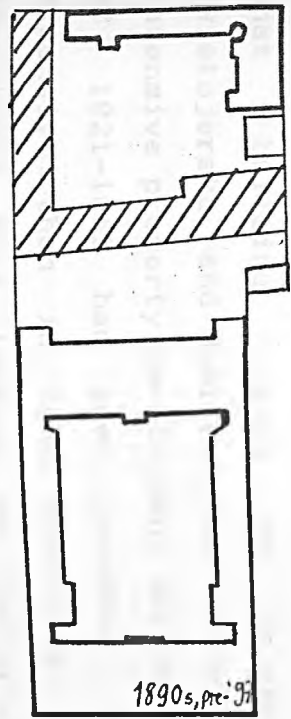


1840s

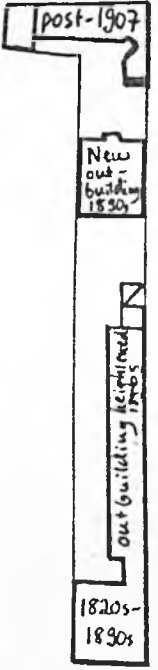
1890s  
1872  
1840s  
1832



pre-1867



1890s, pre-97



1820s-1890s

30m  
20  
10  
0



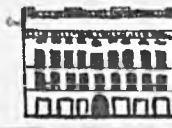
23-25/2245



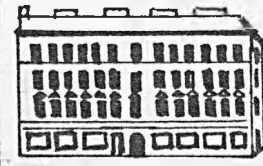
31/2285



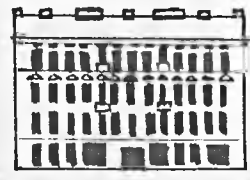
16/2261C



41/2251A



26/2257C



36/2254B



9/2238

1-FLOOR HOUSE WITH RETAIL  
OUTLETS ON GROUND FLOOR &  
FLATS ON UPPER STOREY;  
TENEMENT BACK-DEVELOPMENT  
FROM AFTER 1908  
(UNMARKED ON BASEPLAN)

2-FLOOR TOWN HOUSE  
TENEMENT BACK-HOUSES  
FROM AFTER 1867

LATE TOWN HOUSE  
WITH 1870s BACK-  
HOUSE DEVELOPMENT.  
(WITH 2ND. FRONTAL  
HOUSE ON WALOWA ST.)

TOWN HOUSE  
REDEVELOPED IN:  
1. c.1872 (1st. ct. yard)  
2. 1890s (2nd  
courtyard)

FIRST 3-FLOOR  
TENEMENT ON NALEWKI  
IN 1882: 20 FLATS  
& 80 TENANTS

TENEMENT HOUSE,  
CLOSED-COURTYARD  
(back-workshops raised  
in the 1870s)

SUCCESSIVE  
REDEVELOPMENT  
OF ORIGINAL  
2-FLOOR  
TOWN HOUSE

that building plots on Nalewki, Franciszkańska, Świętojerska and Bonifraterska streets, where the earliest intensive property development during the true 'ghetto' era of 1821-1862 had been focussed, were generally more expansive than in other districts. The vast majority of apartments were located on the groundfloor (2312), 1st. floor (12335) or the 2nd. floor (1129) of these early tenements. The number of 3rd. floor apartments in 1882 (288) was relatively small, compared even with other municipal districts; e.g. already 446 in Leszno/Okopowa, 692 in the southern, 9th. *cyrkuł* of Ujazdów and a substantial 1097 in the 8th. *cyrkuł* which at that time combined Grzybów with Koszyki (refer to Tables 11c and 11d in Chapter 10). The Nalewki tenement house was thus lower than its more compact and less numerous barracks house counterparts raised in other parts of the evolving tenement belt. An article published in the Warsaw Courier (*Kurier Warszawski*) in November 1873 provides some insight into the kind of tenement being put up before the 1880s on Nalewki:

"In spite of widespread complaints at the lack of ready cash and its application to embellish the city and for the well-being of its inhabitants, it has to be admitted that in Warsaw, particularly in the course of the last year, a great deal of construction has been undertaken (...). In more distant parts of the city we have a chance to witness a consoling sight; among others there is the new house on Nalewki, the second beyond the district police station. Belonging to a locally reputed merchant, Szymon Goldflus, the entire previous frontage has been redesigned by the builder Orłowski and is a true embellishment of this street. The most important changes, however, have been carried out inside the plot, for on a stretch of land nearest Dzika Street

and until recently undeveloped, Mr. Goldflus has set up a beautiful back garden and raised great 2-floor outbuildings, creating an expansive courtyard in which the owner intends to accommodate a small grass reservation surrounded by asphalt pavements. (...) great care has gone into ensuring tenants, comfort in each of the new flats, whether they be located in the outbuildings or the frontal house, with Venetian windows with glass panes and careful attention being paid in each" (flat) "to ceiling heights, wall thickness and a well-conceived apartment plan. It is not hard to see that the owner of this beautiful house was not motivated primarily by prospects of financial profit, but rather by a desire to set an example of high quality and aesthetic house construction, and maybe also as a most valuable relic to be set aside for posterity. This example is well worth following, and Mr. Goldflus should be congratulated for the service he has rendered, for it is only houses constructed in this way which can ensure improvements in health standards and guarantee residents true well-being with domestic comfort. (...) It should also be mentioned that for the convenience of tenants Mr. Goldflus has organised the constructing of a beautiful and easily accessible synagogue in one of the outbuildings."<sup>329</sup>

It should be pointed out that the owner would not have had built a synagogue in one of his outbuildings, but would have adapted one of the apartments into a house of prayer (*dom modlitwy*) in which Warsaw orthodox Jews conducted their religious rites and of which by 1900 there were more than 200 in the city (concentrated in the Nalewki district and immediate vicinities of Grzybowski and Zelazna Brama squares, as well as in properties on Nowolipie, Nowolipki, Dzielna, Gęsia etc.).<sup>330</sup> To consider to what extent Goldflus's house (no. 47/2257A) might have served as a

model for raising housing standards in the city at that time and keeping up with the rapid demographic increase rate (refer to Fig. 3.4 in Chapter 9) would be historic, as opposed to property, speculation. It may be said in favour of Goldflus's house that had the Building Council ("Rada Budowlana") so active during the 1820s-1860s era still existed in 1873 it would have seen no reason to criticise Orłowski's project which would, for example, have been considered a very desirable project compared to P. Lothe's double-courtyard, 3-floor tenement complex on the corner of Marszałkowska and Jerusalem Avenue (no. 100/15740P). Perhaps the author of the article felt a certain nostalgia for the not so distant years when exclusively 2-floor houses had been raised in Warsaw (i.e. 1815-c. 1863). Whatever, 2-floor property development in the Nalewki was still widely practised in the 1870s building boom when in most other Warsaw districts exclusively 3- or even 4-floor tenements were being raised. Virtually no photographic documentation (at least in Warsaw) exists of the Jewish districts (why?). A single picture from the early-1920s of no. 39 reveals two bays of no. 41 from which it is possible to reconstruct the frontal house facade, but no illustrations and above all no floor-plans exist of the outbuildings. In 1882 there were 26 apartments and 169 residents in no. 41.

The 1:250 scale plan for street block designated no. 21 (no., 91 according to the 1919 property census) and dating from 1890, when underground sewers and a water supply system directed by W. Lindley were extended to Nalewki, Gesia and Miła properties, reveal no. 41 had been redeveloped a second time for new owners (the brothers Manke). Two additional, this time almost certainly 3- or



even 4-floor sidebuildings with a back-tenement creating a second closed courtyard, had been raised in the 1880s on the site of Goldflus's "beautiful back-garden" of which a 540m<sup>2</sup> vestige remained.<sup>331</sup> The number of dwelling units in property 2257a would have been thus enlarged as much as two times since 1882 together with its tenement capacity.

By 1914 the officially registered Jewish community of Warsaw amounted to 337,000 people (i.e. municipal districts I-XV). Pogroms in the Russian heartland provoked by the tsarist authorities, followed by the infamous "ukase" of 1882 which banished Jews living east of the so-called Pale of Settlement, embracing large parts of the Ukraine, Byelorussia, the Baltic lands and, inevitably, Congress Poland, resulted in mass movements of Jewish migrants to the Empire's western "gubernias". In the 1880s and 1890s around 150,000 Jews from east of the River Bug settled in Warsaw while the city's population rose from 382,964 in 1882 to 771,382 in 1904. Although they may not have been entirely welcome in the Nalewki, many Russian Jews, or "Litvaks" would have found homes in the 4th. commissariat, apart from in the vicinity of banking, counting and brokers' houses opened on or behind Grzybów and Eelazna Brama squares by some of their kind. The less well-placed would have settled even further to the west of Nalewki along the east-west running streets of Muranów and, eventually, behind Smocza Street where Polish workers employed in factories located on Okopowa Street already resided in "ramshackle houses". The territorial distribution of Jewish dwellers in 19th. century Warsaw and even their actual numbers can only be roughly estimated:

"It is difficult to describe the actual extent of the

processes which took place within Warsaw Jewish society. At the end of the 19th. century there were no reliable figures concerning the population of Warsaw, despite the 1881 and 1897 censuses. Jews in particular eluded the statistics. They did not at first have surnames; they avoided the census; the registration of their families was ineffectively carried out. All quantitative statistics regarding the Jews of Warsaw, calculated by statisticians or demographers, have only an approximate value."<sup>332</sup>

Unfortunately, recent research of Warsaw's pre-1943 Jewish community is also subject to approximate evaluations. The Prussian *Judenreglement* of 1797 had already devised surnames at least for the Jewish populace of that time which was to form the basis of the city's "Polish" Jewish population. The permanently registered inhabitants of Nalewki continued throughout the late-1800s and early 1900s to outnumber by some five times those citizens settling in the city during their own lifetimes while 68% of Warsaw's population in 1910 was composed of such "temporary" residents. Uncertainty as to the number of Jewish inhabitants in Warsaw as such would not apply to the Nalewki so much as to the Okopowa and Leszno commissariats where the poorest social groups lived, as well as the largely Russian Jewish quarters around Grzybów and Żelazna Brama squares. The so-called Lithuanian Jews had not been subjected to the rigours of Prussian administration in the wake of Poland-Lithuania's political extinction in 1794/'5 and it was they who would still have operated without surnames (note: "Lithuanian" or "Litwa", from which the word "Litvak" was derived, prior to the creation in 1918 of a national state of that name was identified with a vast geographical area embracing Byelorussia and even parts of

the Ukraine.).

Between the early-1880s and 1913 the population of Nalewki almost doubled to 54,745 (already 48,321 in 1897). Reference to the 1882 and 1919 property survey shows that between these two years the number of stone-brick buildings rose from 440 to 966, while wooden buildings declined proportionally from 574 to a mere 18, apart from a further 78 brick buildings with timber frames. This pattern has been observed as applying to the leftbank city as a whole (refer back to table 9b in Chapter 9). In 1882 groundfloor (474) and 1-floor (357) buildings had prevailed in Nalewki properties, with 106 2-floor and nothing exceeding the height of 77 3-floor buildings. The 1919 census listed 343 3-floor, 260 4-floor and 39 5-floor buildings in the 4th. *arrondissement*, while the number of 2-floor building components had remained virtually unaltered (211). There were, as would be expected, markedly fewer 1-floor and groundfloor buildings (64 and 126 respectively). Building form as such had undergone a transformation from the early 1880s, although beyond the *fin-de-siecle* tenements on Kupiecka Street and a few other, isolated cases, the cornice line had not risen above 4 upper storeys in the Nalewki, in stark contrast to large parts of the western and southern Mid-Town tenement belt where 5- and 6-, apart from less frequent cases of 7-, 8- and even 9- floor tenements had evolved. The urban profile of Nalewki, in spite of great changes occurring in the last decades of the 19th. and early years of the 20th. century, had retained some specific characteristics in its urban form as well as its social-ethnic structure of changes brought about to building structure and housing densities in the 4th. commissariat which contrasted strongly with the Western and

Southern districts of the "tenement-barracks-city". The street profiles of Nowolipie, Nowolipki, Dzielna and Pawia also rarely exceeded 4-floors; the 3rd. *arrondissement* of Leszno in 1919 recorded just 65 buildings exceeding 4 floors, compared to 497 3-floor and 442 4-floor buildings out of a total of 2142 building components (cf. Table 11<sup>b</sup> in Chapter 10).

The street frontages of Nalewki, Franciszkańska, Świętojerska; to a lesser degree Gęsia, Bonifraterska and Dzika, comprising the commercial core of the 4th. commissariat, had largely retained 2-floor frontal houses raised between c. 1821 and the late-1870s behind which stretched, in the most part, extensive courtyards surrounded by 2-, 3- or 4-floor outbuildings. The commercial and small-scale manufacturing activities of this district were mainly concentrated in the courtyards and outbuildings of these functionally distinctive property cells. Clothing and footwear for the Russian as well as local markets were produced in workshops located on groundfloors or basements of such properties. Although materials were generally brought in from Żyrardów and Łódź, with their own numerous Jewish communities, small textile plants also operated in Nalewki, incorporated into the closed courtyard, semi-residential property layout. Leather was immediately available from the tanneries situated along Okopowa Street. Wholesale firms were located largely on the Nalewki and Franciszkańska, while the actual clothing retail shops were concentrated on these same streets, as well as on Gęsia. An important open market operated daily, except of course on Saturdays, on Muranowski Square, while the district's bazaar, known as "Wałówki", took up a huge area at the back of Stawki Street partially on the site of

Broni (arms) Square. In Miła, Muranowska, Niska, Sierakowska, and Kupiecka streets building plots were far more compact and the tenements occupying them exclusively or predominantly residential. Most of these properties had been raised in the late-1870s, 1880s or 1890s, and were 3 or 4 storeys in height, although in places largely continuous street profiles were interrupted by 2-floor houses dating from the 1860s or early-1870s. The more constrictive dimensions of these plots, being closer to the observed Warsaw standard of 25-35 m (width) by 35-50m (depth), would have encouraged a greater emphasis on vertical development than in the larger plots of Nalewki, Franciszkańska, etc. Tenement building form to the west and north of Muranowski Square would have thus followed a similar pattern to that of the evolving tenement districts of Mid-Town Warsaw from the mid-1860s until the early-1890s. Property development was virtually completed by the mid-1890s, apart from the new 5-floor houses of Kupiecka cul-de-sac, representing, beyond individual back-tenement infill projects, a final stage in the building up of Nalewki district (cf. plate XII). The rate of demographic increase apparently began to wane from around this time: 16,558 new residents between 1882 and 1897; 7,676 up to 1910 (55,997). If the 1913 figure may be trusted, the population of Nalewki actually declined after 1910 by more than a 1000 people, while in 1921 54,091 inhabitants were registered by Poland's first national census. It is worth noting that apart from reaching a stage in its development of comparative demographic stability by the early-20th century, the Nalewki also recorded one of the lowest mortality rates in Warsaw; e.g. for 1910 just under 14 deaths were calculated to every 1000

inhabitants, comparing very favourably with the wealthiest Mid-Town districts: Nowy Świat (18%)m Grzybów (15%), Aleksandryjska (13.5%) and the 12th., North-Central commissariat, with the lowest mortality rate (12.5%).

Street block analysis in the Nalewki district

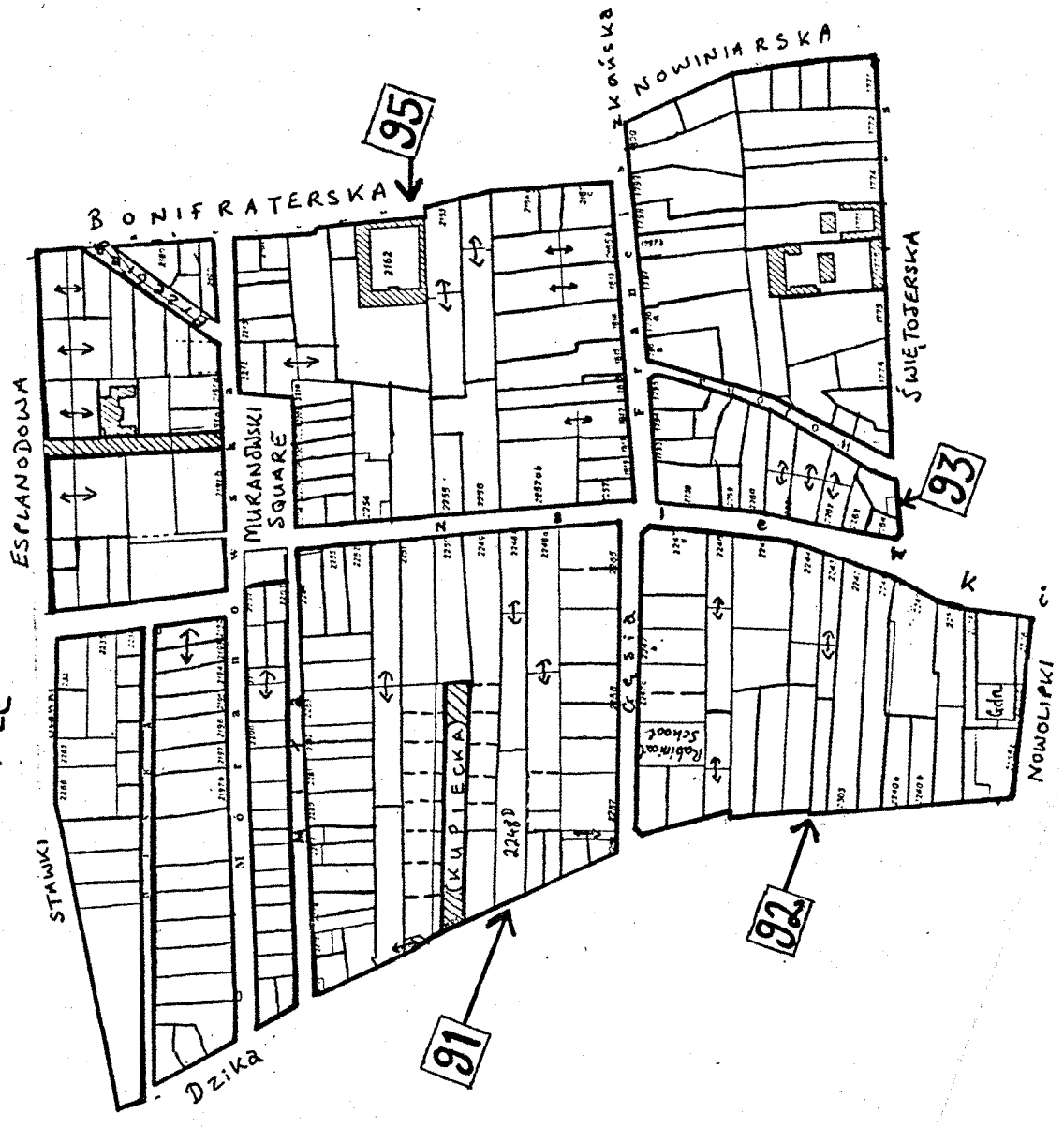
Closer examination of the nature of changes brought about to the building structure and housing densities in the 4th. commissariat has been made by selecting four central street blocks designated by the 1919 census nos. 91, 92, 93 and 95, incorporating the Nalewki street profile and bordered by Miła-Muranowska (north), Dzika (West), Nowolipki-Świętojerska (south) and Bonifraterska (east); (cf. Fig. 3.24 ). Repeating the method employed for street blocks incorporating the Chmielna Street profile, calculations have been made of the numbers of flats and residents recorded by the 1882 census in properties situated within these street blocks, permitting a comparison with the situation in 1919 (cf. Table 16 and compare with Table 15 in Chapter 11).

An intensification of property construction in street block 91 is immediately detectable from the demarcating of 15 new building plots after 1882 11 on Kupiecka Street in the 1890s with Land Registry nos. 5641-'46 and 5892-'98, thereby adding almost twice as many apartments up to 1914/'19. The "tenementisation" of street blocks 92 and 95 was less dramatic; explained by the fact that propeties had already undergone intensive development prior to 1882, although new or enlarged outbuildings would have been put

Table 16: Property development, flat subdivisions and registered tenants in street blocks fronting Nalewki St. 1882-1919

Land Registry numbers of properties	n u m b e r o f :			mean number of :	
	properties	flats	tenants	flats per property	tenants per flat
<b>STREET BLOCK 91</b>					
2248A-2253	12	425	2605		
2275 - 2288	24	775	4034		
2305 - 2036A	1	43	224		
(5641- 5646)	-	-	-		
(5894 - 5898)	-	-	-		
<b>TOTAL</b>	1882: 37	1243	6863	33.52	5.52
	1919: 52	2043	11747	39.29	5.75
<b>STREET BLOCK 92</b>					
2236/7 - 2247F	21	935	4572		
2302(AB) - 2304	2	41	265		
2376A - 2376B	2	37	159		
<b>TOTAL</b>	1882: 25	1013	4996	40.52	4.85
	1919: 26	1131	6262	43.50	5.54
<b>STREET BLOCK 93</b>					
1779	1	39	128		
1793A - 1795	5	121	611		
2258 - 2264	8	303	1212		
<b>TOTAL</b>	1882: 14	463	1951	33.07	4.21
	1919: 14	212	1438	15.14	6.78
<b>STREET BLOCK 95</b>					
1813-- 1819	7	276	1402		
2161A - 2165C	9	211	1298		
2204 - 2213	9	221	1417		
2254 - 2257(C)	6	185	1064		
<b>TOTAL</b>	1882: 31	893	5181	28.90	5.80
	1919: 32	1250	7032	39.06	5.63

Figure 3.24: Building plots in Nakewki; street block analysis and the Nakewki Street profile





up in the 1880s and 1890s (e.g. property 2238/Nalewki 9 in block 92 which was successively extended or heightened during the 1870s and 1890s, or the exceptional case of an entirely new tenement house on Nalewki 36/2254B in block 95 raised sometime between 1891 and 1896; cf. Fig. 3.2). There is a marked consistency in the mean number of tenants per apartment in blocks 91, 92 and 95 in spite of changes brought about in their building structure and populations after 1882; especially in street block 91 in which a further 15 properties were constructed during the 1880s-1890s and the number of tenants almost doubled up to c. 1910 (cf. plate XII).

It has been observed already in the street block analysis (Chapters 4 and 6) that block 93 bordered by Nalewki, Franciszkańska, Wałowa and Świętojerska streets comprised the only group of properties in Warsaw in which non-residential premises (338) actually outnumbered residential or mixed-residential flats (272). This commercialisation had occurred after the 1880s in 14 properties which had been developed mainly in the 1821-1862 period. The number of tenants in these properties declined substantially between 1882 and 1914/1919 (c. 26%), emphasising the gradual replacement of residential space with what would be assumed to have been largely commercial premises (refer to Nalewki tenement belt district sub-study area "T-3" in Chapter 6). According to the 1919 survey, there were no inhabited basements in block 93, although these may have accommodated light-manufacturing firms or handicraft workshops. In no other part of Warsaw, including the CBD quarters of Nwy Świat (X) and Castle District (I), had residential space up to 1914/'19 given way to commercial-business functions to such a degree as in

this territorial unit lying within the Nalewki commissariat.

It has been established that apartments on west-Chmielna Street in Grzybów and Towarowa commissariats were subdivided in the 1882-1914 period as the building structure was intensified in the Western District. In the 4th. commissariat, however, apartment subdivision would appear to have been insignificant, reflecting apparently minor alterations to the social-class structure of Nalewki in spite of the changes to the urban pattern and the rise in population during the late-19th. and early-20th. centuries. Basement flats decreased marginally from 421 (1882) to 407 (1919). The increase in groundfloor apartments was very marked (2312 in 1882, 3639 in 1919), many of which would have undoubtedly incorporated retail outlets or individual craftsmen's workshops (refer to Tables 6a and 6b in Chapter 4). 1st. and 2nd. floor flats rose from 1355 to 2136 and from 1129 to 2078 respectively. The prevalence of 3-floor tenements developed from the 1870s on streets north and west of Muranowski Square is reflected in a more than fivefold rise in the number of 3rd. floor flats from a mere 288 (1882) to 1568 by 1919. 762 4th. floor along with 77 5th. floor apartments were also created after 1882. The greater proportion of 1st. and 2nd. floor dwellings comprised 3 rooms occupied by between 4 and 7 people, whereas on groundfloors 2-room mixed-residential flats housing anywhere between 2 and 6 people were most numerous. In 1919 Nalewki recorded the smallest percentage of singleroom flats (28.4%) among Warsaw's Mid-Town municipal districts with the one exception of *arrondissement XII* (refer to "The sub-dividing of apartments (...) " in Chapter 10). By 1914 Nalewki

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apartments on the whole actually consisted of more rather than less rooms, as revealed by mean figures of 2.1 in 1882 and 2.6 in 1919.

Although it should be born in mind that apartment subdivision in Warsaw tenements from the 1880s may have led in certain cases to a reduction in room size, there are strong grounds for concluding that housing conditions in this part of Warsaw did not worsen during the period of large-scale urban development; also that the graphic images of domestic and social life in the Nalewki presented by B. Singer in his memoirs were as relevant in the 1870s as they were in the early-20th. century.

It cannot by any means be assumed that housing conditions with living standards deteriorated simply because almost twice as many people inhabited the 4th. commissariat by 1913, or rather 1910, than in the early-1880s. Equally, in other tenement belt districts (especially Koszyki, Aleksandryjska and Ujazdów, but also many properties in Grzybów and other parts of the Western and North-Western districts) where tenement housing inhabited by the middle classes, Jewish or Polish, prevailed, it is more likely that domestic life underwent a general improvement during the late-19th. and early-20th. centuries even while such quarters became ever more densely built up (refer to sub-study area T-7 and Fig. 2.8 in Chapter 6). Only in the barracks-scale housing of more westerly, primarily "proletarian" quarters of the tenement belt would high densities of residents in properties appear to have resulted in overcrowded singleroom apartments and deprived housing conditions which may indeed have been exacerbated as the Mid-Town populace continued to rise into the 20th. century. In Table VII of the statistical annex to

Part I properties grouped in street blocks and composed of more than 20 predominantly singleroom apartments, occupied by more than two persons, provide some indication of overcrowded living conditions in Mid-Town tenements in spite of wartime depopulation; most clearly expressed in terms of spatial location in cartogram IVf ("The number of residents in rooms of inhabited properties").

According to the 1919 census, plumbing had been installed in almost 90% of Nalewki properties (198 out of 231), as many as 223 (96%) were already supplied with piped water while both gas and electricity were provided in two thirds of houses (compared with recordings for the Mid-Town of: plumbing 80.7%; piped water 92.2%; gas and electricity 49.3%). Far from being a district of residential overcrowding and human deprivation, the Nalewki during the the 1864-1914 era developed an urban infrastructure superior to virtually every other part of the built-up area beyond the most representative and wealthiest central quarters. The generally more open plan of tenement construction on Nalewki, Franciszkańska, Świętojerska, Dzika and Bonifraterska streets, averaging 2 or 3 floors in height with an insignificant number of buildings exceeding 4 floors (arising from the economic activities carried out in this Jewish commercial district, rather than from any conscious constructional planning), which contrasted with the standard tenement belt property developed at maximum density, would seem to have portrayed some of the more positive, not negative, aspects of high density, multi-apartment housing created in Warsaw before World War I. The *Warsaw Courier* article quoted above, in spite of its anachronistic literary style, lends some support to such a conjecture.

Life in the Nalewki would appear to have taken a drastic turn for the worse only in the wake of the German occupant's harsh requisitional policies during the war, the loss of a vital Russian economic hinterland and a general decline in the economic standing of Polish Jewry during the inter-war years. The 1931 census, for example, reveals the population of Nalewki had risen rapidly to 62,340, although insignificant building activity had taken place since 1919, suggesting housing conditions, together with living standards had deteriorated even before the Great Depression set in.

#### Urban form and housing types in Okopowa commissariat

If optimum standards of Jewish urban living had been assured during a century of gradual development in Nalewki commissariat, housing conditions in neighbouring Okopowa district came much closer to the picture of extreme poverty and slum existence presented, among others, by M. Orłowski in his early-1920s guide to Warsaw. In 1910 a 33% mortality rate was recorded for the 5th. *cyrkuł*; the highest, together with Towarowa-Wola in Warsaw. The built-up area, checked by the Jewish as well as RC cemeteries, was mainly confined to within the former customs wall (Okopowa Street), but the building structure to a significant extent was more characteristic of inner-peripheral districts like Wola and Praga than the Mid-Town tenement belt (refer to Okopowa sub-study area T-4 in Chapter 6).

Urbanisation had already got under way in earnest

during the 1860s (refer to Table 12 in Chapter 10), but even in 1919 about 22% (322) of all buildings were wooden (289) or timber-framed (33). Fully-evolved tenement properties, comprising 4 or more building components of mainly 3, 4, but also 5 floors, were concentrated at the eastern, Nalewki ends of Pawia (north side), Gęsia, Miła and Niska streets (i.e. as far east as their consecutive intersections with Dzika Street; cf. plate VIa in Chapter 6). The consistency of barracks housing urban development broke down behind Nowokarmelicka Street so that 4-building component tenements were almost totally absent from the Okopowa urban landscape west of Smocza street. In line with the general westward trend in deteriorating housing and living standards, consistent or even dispersed wooden housing dominated the above streets' east-west orientated profiles at the Okopowa Street end. Wooden or mixed stone/brick-wooden development was most dispersed on Gliniana, Sochaczewska, Kampinoska backstreets and north of Stawki in the vicinity of Parysowski Square. Urban form may still have been in the process of evolving in these outlying quarters of the tenement belt, but it should be emphasised that Okopowa district had been urbanised in the 1880s to an equal or even marginally greater extent than the south-western Mid-Town quarters later represented by Towarowa (VI) and Pomological/Koszyki (XI) *cyrkule* (refer to annex tables III, IV and V at the end of Part III). One of the city's poorest street markets stretched along Smocza street with its small town/suburban street profile, broken up in places by a single-standing 3-, 4- or 5-floor tenement (compare with the B. Prus quote in "The riverside inner-peripheral district of Powiśle", Chapter 7).

The industrial belt following the Mid-Town side of

Okopowa Street may have discouraged Jewish middle-class residential development and was largely the domain of Polish labourers, with their families (30% of the population of an otherwise solidly Jewish district; refer to plate VIIIa). 448; i.e. almost a third of all buildings, were groundfloor constructions, 203 had a single upper storey while there were as few as 138 2-floor houses; a statistic suggesting a strong contrast had arisen in the urban profile between the mainly 3- or 4-floor tenements on the Nalewki side and the "small" (or *biddenville*) morphology west of Smocza and north of Stawki streets. Judging from the tendency observed in 19th. century Paris of a general movement of working class families away from the central and subsequently from the inner-suburban *arrondissements* to the *banlieu*, the Jewish and Polish proletarian communities continued to inhabit the western quarters of Okopowa and Leszno *cyrkule* largely because no clear incentive existed among Warsaw's middle classes to take up residence (note: evidence of this region's unattractiveness is provided by the absence of intensive property development on the Parysowski Square, laid out in the 1890s but still barely built-up in 1943; compare with the rapid developing of Witkowski Square and environs in Towarowa *cyrkuł* as well as consistent tenement construction from the 1870s south of Jerusalem Avenue in Koszyki (XI) and the south-eastern (IX, XIII) commissariats (tenement belt districts T-8, T-9 and T-10 in Chapter 6). It is also worth noting that the pace of urban development with resultant changes to building and urban form on the East Bank made far greater advances in the last two decades of the 19th. century and early-20th. century than has been observed in the 5th. arrondissement (cf. "(...) Praga" in

Chapter 7 and refer to photographic documentation in Chapter 11, "Atypical barrack-tenements..." presenting housing types taking shape on the East Bank from the 1860s upto 1914). A long drawn-out early phase in tenement building form evolution in the Okopowa is represented by numerous examples of low housing composed of 1 or 2 buildings (cf. diagram 2b in Fig. 3.2).

In 1919 5582, or 43.4% of all inhabited flats contained a single room; a proportion exceeded only in the Towarowa commissariat (45.3% of all apartments). There were as many as 3459 flats in the 640 3-, 4- or 5-floor buildings of Okopowa tenements, compared to 2407 flats in the combined 642 3-, 4- or 5-floor tenement buildings of Nalewki; reliable evidence that apartments even in the tenement houses of Okopowa tended to be considerably smaller and thus more crowded than in Nalewki barracks houses.<sup>333</sup> The population of *cyrkuł* V was almost 1½ times greater than the 4th. commissariat.

#### Building form evolution in developing urban landscape

To what degree tenement barracks housing as a building form - rather than as a measurement of overcrowded conditions in sub-standard, "ramshackle" housing on the urban periphery - was step by step taking over the urban fabric of Okopowa district is difficult to ascertain, not least because the urban process was to be halted by World War I and not resumed after 1918. There is little evidence of any significant constructional activity in this part of the



Mid-town on either the 1925 or 1937 1:2500 scale town plans from which the baseplan for this thesis has been taken. Two street block case studies might be selected from the 5th. *arrondissement*, lying between the solid tenement-barracks property development of Nalewki (east of Dzika Street) and the "small town" urban pattern prevailing to the west of Nowokarmelicka and Smocza streets. The Wołyńska street profile, consisting of some 3- or 4-floor tenements, lower town houses with single or 2 outbuildings, apart from smaller cottages, and even 2- or possibly 3-floor wooden tenement frontages (12/2171CF - 18/2171CC), are seen to have incorporated most building forms comprising the Okopowa urban fabric until its complete erasure during the Second World War.

A desirable approach to investigating buildings of contrasting forms would be to identify various property types, such as those recognised from the baseplan on Wołyńska Street, and establish sub-periods relating to the development of Warsaw's Mid-Town northern periphery in the years c. 1864-1914. This method of urban analysis is confounded by an almost complete lack of photographic documentation for this district. A similar methodological approach to the development of building forms in the rightbank district of Praga, where the urban landscape taking shape over a similar period of time to a significant degree still stands, has produced some satisfactory results (eg. Środkowa Street profile composed of groundfloor wooden and stone/brick "small town" houses from the earliest stages of urbanisation, 1- and 2-floor "medium-sized" town houses from the 1870s-'80s, 3-floor tenements from the 1890s and 4- or 5-floor "super" barracks tenements housing upto 300 people, raised mainly in 1907-'15). However, in

spite of certain generalised similarities in the urbanisation of Praga and the peripheral inner city districts of leftbank Warsaw, it cannot be taken for granted that the urban processes at work in proletarian quarters of Okopowa commissariat, for instance, mirrored those at work in Praga or, for that matter, in other predominantly working-class districts of the Mid-Town.

## A MODEL OF TENEMENT HOUSE TYPOLOGY IN WARSAW c.1860-1915

URBAN REGION	pre-1860s	1860s/'70s	1880s	1890s	1900-'15
CORE AREA CBD-B to E	town houses	minimal change	flat sub-division	new storeys INFILL	MULTI-STOREY INFILL/ DEMOLIT'N
NOWY SWIAT CBD-A & F	PROTO-TYPE FORMS	FIRST STREET PROFILES	SUB-DIVISION OF FLATS	INFILL/DEMOLITION BACK-TENEMENTS	
NALEWKI T-3	PROTO-TYPES	2-FLOOR ON NALEWKI	OUT-BUILDINGS OFF NALEWKI	3-/4-FLOOR KUPIECKA	minimal development
NORTH-WEST T-2, T-4	town houses NEW STREETS	FIRST STREET PROFILES	Social change Jewish settlers	4-/5-FLOOR BARRACKS wooden tenement (proletarian)	
MIRÓW T-5/6	town houses OUTBUILDINGS	WESTWARD GROWTH INFILL	SUB-DIVISION OF FLATS	HIGH-RISE PROPERTY DEVELOPMENT & INFILL	
GRZYBÓW T-7	Jewish town houses	3-FLOOR FULLY-EVOLVED UNIFORM	Social change SUB-DIVIS'N.	4-/5-FLOOR SOME VACANT PLOTS	minimal change
SOUTH-EAST T-10	small houses open land	FIRST STREET PROFILES	minimal development	SOUTHWARD ADVANCE 3-/4-FLOORS	Ujazdów 4/5/6-FLOORS infill
KOSZYKI T-9	arable land gardens	NEW STREETS partial profiles	minimal development	3-/4-FLOORS GENTEEL UNIFORM	NEW STREETS south advance
POWISLE riverside	low-level, "small" town housing & wooden cottages			isolated enclaves workers' barracks	
PRAGA rightbank	stagnation	NEW STREETS	NOWA PRAGA INCORPORAT'N.	ATYPICAL FORMS workers' houses	
WOLA transition	low-level, "small" town houses; peripheral dvlpmt.			lower MC tenement & workers' barracks	
MOKOTÓW assimilation	Village cottages & peripheral development			NEW STREETS	3-/4-FLOOR

CONCLUSIONS

The urban analysis began with the defining of an "inner city" to be placed under intensive investigation. An urban region comprising the 13 leftbank municipal districts of the so-called Mid-Town (*Śródmieście*) was identified as being the most densely built-up (Table 1 and 2; no great discovery in itself, but a necessary starting point). Referring to data compiled in the 1919 census of standard Mid-Town property parcellisation in the more intensively developed parts of the city, average recordings for a more consistently developed part of the inner city were tested against detailed cartographic sources from the same period (Fig. 1.3 and plate IIa).

The "barracks-quality" (*koszarowość*) of housing in each of the constituent Mid-Town districts was established by calculating the mean number of tenement holdings (i.e. apartments) in developed properties (Table 3 in Chapter 2). A scale of theoretical building size, correlating to some extent with the level of urbanisation in a given district, was based on the number of apartment divisions (Fig. 1.4). Nalewki and Grzybów districts were recognised as forming at least part of the most densely built-up, as well as populated, regions of the Mid-Town (pp. 45-47). A hypothetical hierarchy of "tenement-barracks" districts was expounded, with average properties grouped in each of the 13 Mid-Town *arrondissements* containing more than 20 apartments (interpreted as the threshold of barracks-quality in urban form). Medium-sized house types (4-20 apartments) were seen to slightly prevail over barracks housing in the

inner-rightbank districts of Praga (XIV-XV), even though the total number of habitable or mixed-habitational flats divided by the total of developed properties marginally exceeded 20. In the case of Praga, as well as the outer-urban districts (XVI-XXVI), a predominance of medium-sized, so-called town houses reflected the comparatively early stage of urban growth in relation to the Mid-Town where barracks-type housing was dominant (pp. 52-55).

In Chapter 3, apart from considering urban depopulation arising from the 1914-'18 war, inferior housing conditions related to social-class structure in the suburbs were expounded as resulting from a perceived urban divide between the Mid-Town "tenement-barracks-city" and evolving or wooden districts of the outer city. Only through close examination of data from the 1919 census recorded for street blocks was it possible to confirm the hypothetical existence of an inner zone in transition lying between the leftbank tenement districts and the suburbs (Cartogram IV in Chapter 4 compared with Cartogram II in Chapter 2 and cartograms IVa-IVf). The "inner-peripheral" districts of Powiśle and Wola were interpreted as having reached by 1914 (1919) a stage of urban development correlating with that of Praga. Each of these "fringe" areas recorded markedly smaller mean numbers of rooms per apartment in properties grouped according to street block and higher density readings of residents to a room (annex table VII to Part I).

Analysis of developed real estate at street block scale was largely based on mean calculations of apartments (as an indication of property size) and residents in the rooms of apartments (taken as indicating housing densities). The homogeneousness of property development in street blocks

lying in an area spatially defined by the customs wall operating until the 1870s, although excluding central districts I, II and XII which had largely taken shape prior to the 19th. century, provided the statistical foundation for delimiting a belt of intensive and comparatively consistent tenement morphology (compare Figs. 1.5, 1.7, 1.9 and especially 1.10, supported by summary data presented in Table 7 with reductions of the base plan in plates VIa-VIe). The tenement belt's territorial extent is also expressed in the spatial diffusion of urban communal services from the late-19th. or beginning of the 20th. centuries, such as piped water, underground sewer drainage or electrification, lending yet further proof of generally far higher living standards among citizens in the tenement belt and city centre than in urban fringe and outer urban areas (cf. Fig. B taken from A. Słoniowa and J. Piłatowicz).

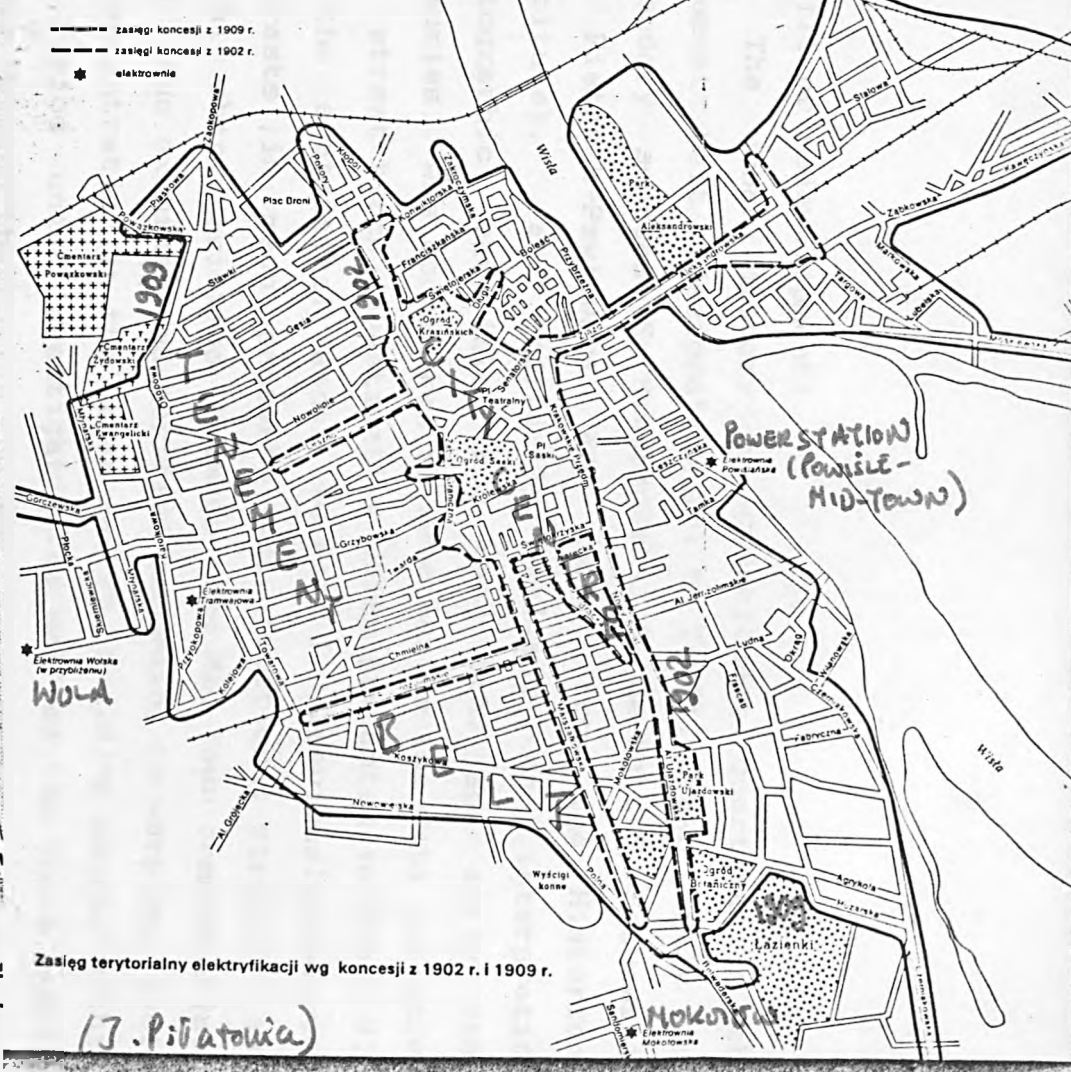
In Part II the Mid-Town study area was itself divided into sub-study areas (i.e. mainly truncated commissariats I-XIII; Table 8 and Fig. 2.3). Chapter 5 dealt with the central quarters, designated CBD-A to F in accordance with fluctuating property size and housing densities in street blocks within the "historic" nucleus and evolving commercial quarters lying in the main south of the Saxon Gardens on and behind north-Marszałkowska and Nowy Świat streets (plates Va-b). In these districts a predominance of middle-sized properties correlated with pre- or early- industrial urban growth (patricians' or later merchants' houses), or with a certain degree of "commercialisation" in tenement properties (especially in the vicinity of north-Marszałkowska St. and in the Bank District/CBD-A). Barracks-tenements, nevertheless, were well represented in Nowy Świat ("commercial") and Nowe Miasto ("T-1" quarter of tenement

FIGURE B

THE WATER-SUPPLY & CANALISATION SYSTEM (1879)



THE ELECTRICITY SUPPLY SYSTEM



Zasięg terytorialny elektryfikacji wg koncesji z 1902 r. i 1909 r.

(J. Piłatowicz)

Derived by W. Lindley (according to A. Stoniowa)

infill or redevelopment).

The urban history of constituent quarters in the tenement belt (designated T-1 to T-10), drawn partly from secondary sources (E. Szwankowski, S. Herbst, O. Sosnowski, I. Pietrzak-Pawłowska and team from the Historical Institute), and partially reliant on interpreting cartographic materials from the 18th. and early-19th. centuries, was considered in relation to the data collected for street block investigative units presented in Table VII of the statistical annex to Part I. Previously-observed contrasts in mean property size, functional structure and social characteristics between the Mid-Town commissariats were thus examined and verified according to varying levels of concentration in the urban fabric, building phases within the period under investigation as well as the broad ethnic divide between the Polish and Jewish communities, themselves fragmented by social-class stratification.

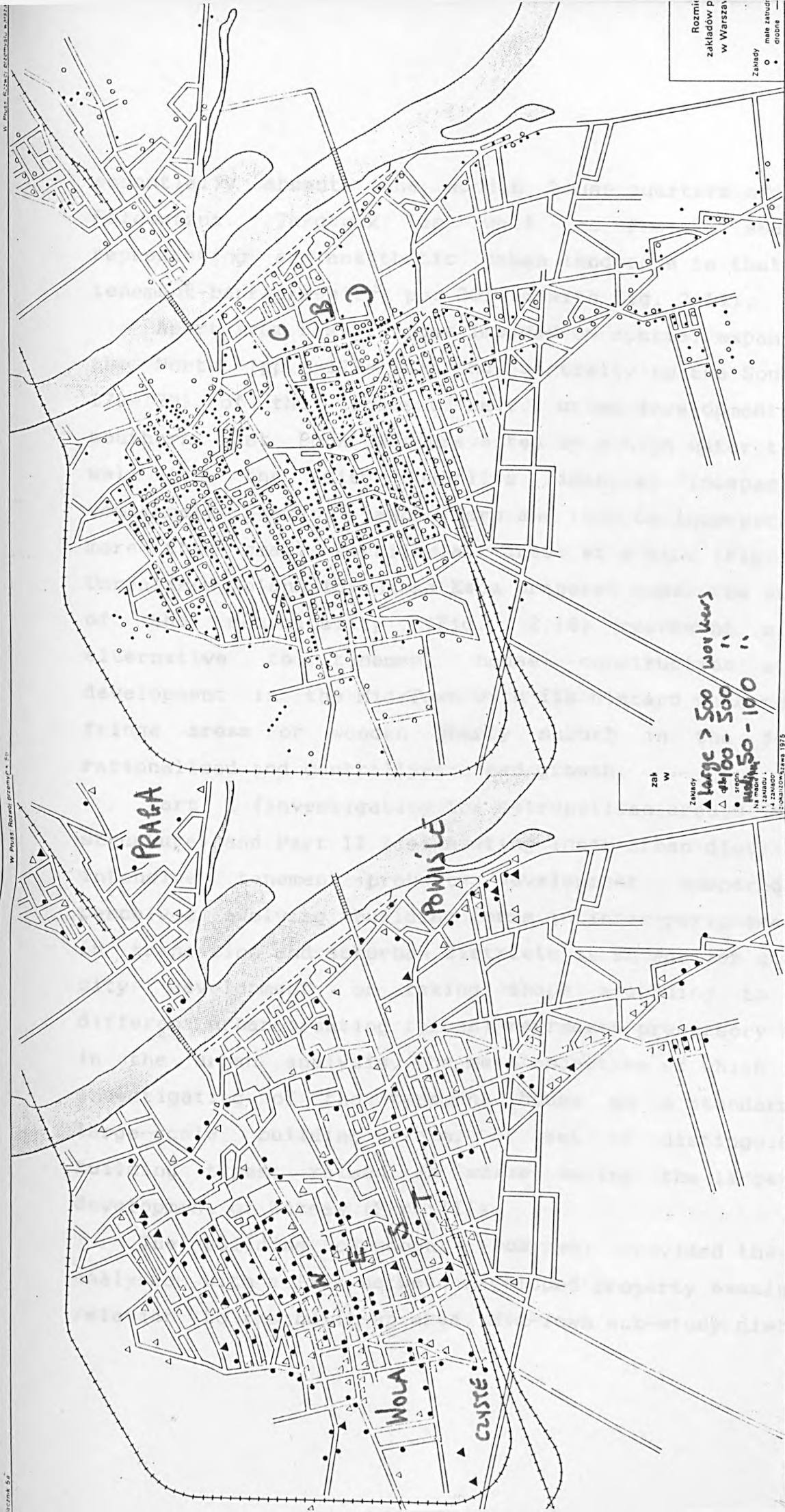
The perceived developmental stage(s) or absence of tenement housing in inner- and outer- suburban districts was investigated in Chapters 7 and 8. The primarily proletarian character of Powiśle, Praga and Wola was regarded as correlating with minimal or delayed tenement house construction in these districts, although a certain degree of consistency in the urban form of street block ensembles (particularly in the *Konopacczyzna* quarter of "New" Praga) was recognised. Examples of "workers'" tenements were placed in the urban-social context of this fringe area, but these were seen to be unrepresentative of building forms and the generally sub-standard housing conditions prevailing here. Similar conclusions were drawn for "workers'" barracks in the Mid-Town tenement belt (especially in Towarowa/T-8 district). Housing of a barracks nature in



such peripheral quarters did not on the whole correlate with the standard tenement house paradigm of frontal house with interconnecting sidebuildings and back/outhouse, but more frequently consisted of semi-evolved forms or even wooden house ensembles subdivided into singleroom apartments (pp. 264-'5). The predominantly working-class social structure of Powiśle, Praga and Wola, forming a fringe belt immediately behind the Mid-Town "tenement-barracks-city" discouraged the evolution of tenement building forms here, providing evidence that the tenement failed to diffuse very far down Warsaw's social hierarchy beyond the bourgeois and lower middle classes (pp. 268-'70).

In the suburban zone, situated throughout the study period beyond the municipal boundaries, an advanced stage of tenement evolution was recognised in the southern "outer tenement district" of (Upper) Mokotów (pp. 283-'92 and Fig. 2.17). Housing conditions were perceived to be improving here from at least the late-1890s. Elsewhere, the social-class structure was overwhelmingly proletarian, reflected in industrial location or relocation of firms moving out of the Mid-Town where land rates had become too high by the turn of the 19th. century. Larger industrial concerns were located mainly on the edge or outside of the Mid-Town tenement belt by the early-20th. century (cf. Fig. C taken from W. Pruss). Only smaller, manufacturing businesses employing from 50 down to 15 or even less workers continued to operate in the "Main City", a vast majority of which were incorporated into the tenement house building layout (Tables 6<sup>a</sup> and 6<sup>b</sup> in Chapter 4). The setting up of communal services beyond the tenement belt either reflected a delayed stage of developing urban infrastructure (Praga, Mokotów, to a lesser degree Powiśle, Wola and Ochota) or was

FIGURE C



0 - small (16-50 workers)  
 • medium (6-16 workers)  
 2 - large (> 500 workers)

same: W. Pruss

essentially absent (the wooden house quarters of Bródno, Pelcowizna, Targówek as well as Powązki shantytown representing an antithetic urban landscape to that of the tenement-barracks-city; pp. 301-'6 with Fig. 2.19).

Apart from restrictions imposed on spatial expansion in the North (pp. 273-'78) and partially to the South (pp. 179-'80) of the tenement belt, urban development on the southern East Bank was prevented by a high water table as well as the City Council's financial incapacity to compensate peasant landholders and thus to incorporate any more than small territorial areas at a time (Fig. 2.15). Unrealised plans for Saska Kępa prepared under the auspices of the municipality (Fig. 2.18) represent a third alternative to tenement house construction at high development in the Mid-Town with its discard working-class fringe areas or wooden shanty suburb in the form of rationalised and centrally-planned growth.

Part I (investigating the metropolitan area's internal structure) and Part II (delineating inner-urban districts of intensive tenement property development, compared with perceived evolving building forms in inner-peripheral/zone in transition and suburban districts at an earlier stage of city development or taking shape according to quite different urban-creating forces) represent precursory stages in the urban analysis, the main objective of which is the investigating of the tenement house as a standardised, large-scale building form, or set of distinguishable building types, raised *en masse* during the large-scale development of Warsaw (Part III).

The building component (*budynsk*) provided the urban analysis with a link between developed property examined in relation to the built-up area, Mid-Town sub-study districts

or street block units and the internal structure of the tenement house itself (apartments, rooms, mean nos. of residents; pp. 309-'10). Building components, alternatively referred to as "houses" in earlier statistical data sources (1864-'68, 1870s, 1882 and 1894-'94) thus provided a missing link between the investigation of urban landscape composed of barracks-property building forms (parts I and II) and examining tenement cells within the urban landscape during the study period (Tables 9<sup>a-b</sup>, 10 and 11<sup>a-d</sup>). Individual properties representative of stages in building development in constituent parts of the Mid-Town, related to some extent to observed building types in the inner-peripheral and suburban zones, were identified from cartographic sources (1852, 1867, 1897 as well as the base plan taken from inter-war maps of the inner city (Figs. 3.1, 3.2 in Chapter 9 (ground-plan) and 3.8 in Chapter 10 (vertical development)). The raising of property at higher density was seen to be reflected in the building up of plots at maximum intensity (Fig. 3.3 in Chapter 9 and plate XII in Chapter 12), diminishing courtyard dimensions during the study period (Fig. 3.6) and gradual raising from the 1880s of cornice heights from 3 or 4 floors in the 1870s to 5, 6, 7 or more floors from the 1890s (Fig. 3.9 in Chapter 10; also Fig. 3.16 in Chapter 11). Architectural embellishments tended to reflect building phase, or the period of subsequent redevelopment, as well as the social status of residents ("articulation"; pp. 382-'3). Social or income status of residents also influenced internal factors of floor level location (vertical factor) and whether flats were located in frontal, outhouse or "back-tenement" buildings (horizontal factor pp. 381-'2). Contrasts in external layout correlating with the period of

development/redevelopment, social structure of tenants inhabiting individual tenement cells and facadal ornamentation were thus reflected in the internal plan of tenement housing. Floor-plan was a variable dependent in tenement house analysis (Plate Xb); apartment division or later subdivision would reflect varying degrees of social stratification within a given property, subjected to alteration over time. A model of social segregation in the tenement-barracks-city in relation to constituent parts of the built-up area as well as within a hypothetical Mid-Town, fully-evolved tenement cell, based in part on a model of social-class structure conceived by J.G. Kohl as early as in the 1830s for the city of Leipzig was devised for early-20th. century Warsaw (Fig. 3.10).

Apart from the all-important findings of the 1919 property survey, the results of a one-day census carried out in 1882 has provided invaluable data for assessing barracks-tenement construction in the Mid-Town study area down to that year (Plate Xd, illustrating the concentrating of such forms outside the city centre in Nalewki and Grzybów commissariats and correlating quite satisfactorily with the maps of a theoretical belt of tenement building fabric in Part I (Figs. 1.5 and 1.7).

An appraisal of the tenement's spatial diffusion up to the outbreak of World War I, based mainly on the municipal tax registers which were not always entirely accurate in the recording of real-estate divisions, has established broad patterns of property development in the study area (summarised in Table 12). A lack of time has prevented the mapping of this information, which would be expected to underline intensified property development in the Mid-Town commissariats, as well as a completion of developmental

processes in the southern Mid-town quarters, as well as the delayed parcellisation of real-estate (if not as yet consistent barracks development) in Wola and other fringe areas incorporated into the municipal area prior to 1914.

A confrontation has been detected in the building form models (inevitably western) of elitist urban house types (main building represented by a corpus situated in the middle or on one side of plots behind frontal service houses with "palatial" wings operating as connecting sidebuildings) and considerably more frequently-occurring tenement house layout (street-facing frontal house composing the main building, connected by sidebuildings to an outhouse of secondary importance, closely resembling the Berlin prototype and in all probability introduced to Warsaw by architects, such as the paradoxically Italian, H. Marconi, who were well-acquainted with the Berlin tenement; cf. Plate Xb).

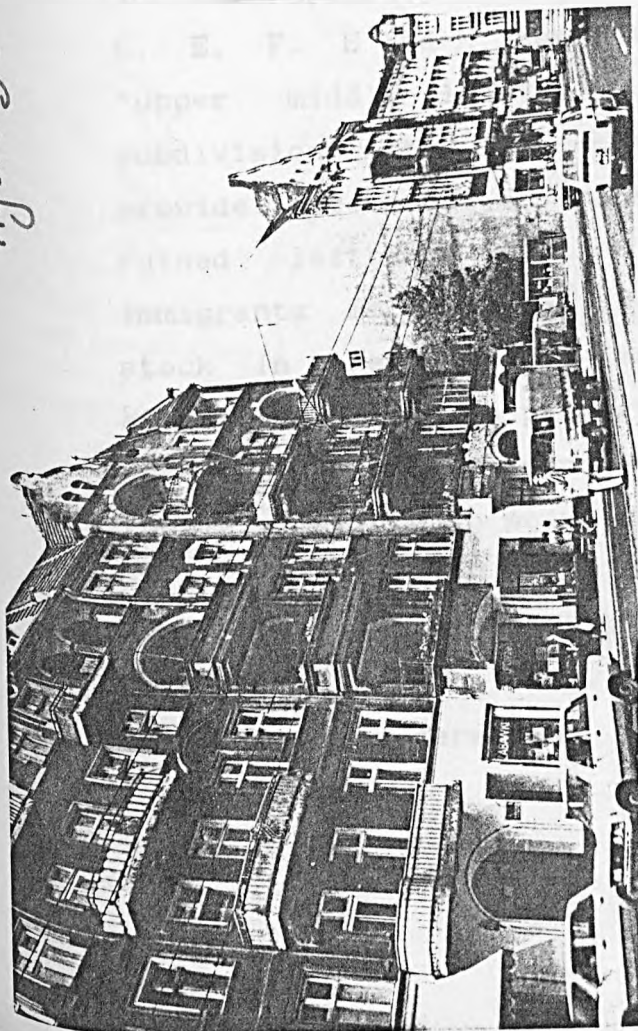
The greater and more direct influence exerted by the Berlin *Miethaus* rather than Vienna's *Miethaus* in the evolution of Warsaw's own large-scale tenement house in the mid-19th. century is also reflected by a strong contrast in constructional plan, apart from architectural character, of the standard barracks-house types of modern Poland's political seat and the historic capital of Kraków, whose late-19th. century tenements, succeeding its 16th. and 17th. century merchants' town houses, continued to lie within the cultural as well as political orbit of Vienna. A dividing line in the geographical diffusion of tenement house building form(s), generally interpreted as originating from the Italian peninsular, in effect separated the cities of Galicia (Austrian Partition of Poland-Lithuania) from the main centres of Congress Poland which, at least so far as

Łódź and Warsaw as the primary urban agglomerations were concerned, fell more under the influence of Berlin.

A quite specific architectural style (compared, for example with the tenements of Poznań, very heavily influenced and even designed by Berlin architects) would suggest a specific regional tenement form, or series of house types, evolved in Warsaw, although the comparatively minor scale of urban development in regional towns of Central Poland means there is little evidence of such a regional building form's influence on multi-apartment construction in Central Poland; that is except in Łódź which would appear to have taken its models from Berlin or even Vienna rather than Warsaw. Lwów, the rarely-acknowledged urban rival of the present Polish capital, evolved its own relatively specific regional tenement form on a scale considerably lower than the 4-, 5- or 6-floor Viennese *Miethäuser*; a reflexion of the Galician capital's social-class structure based on the stratification of upper, middling and petty-bourgeois sects, but also the retaining of Polish bureaucratic controls over private property development throughout much of the late-19th. century; the first multi-storey tenements, raised almost exclusively in the centre, did not make their appearance until c. 1910. Middle-class urban living in Lwów clearly tended to be more comfortable than in Warsaw; it was rare, and in all likelihood much frowned upon, that a *lwowian* should have to climb more than 2 flights of stairs to reach his apartment... (cf. Fig. D). Certainly the appearance in Warsaw of tenement "skyscrapers" is indicative of building evolution unique to this city, the causal factor of which would be assumed to have lain behind (a) rampant property speculation unleashed by the "first" Russian Revolution of

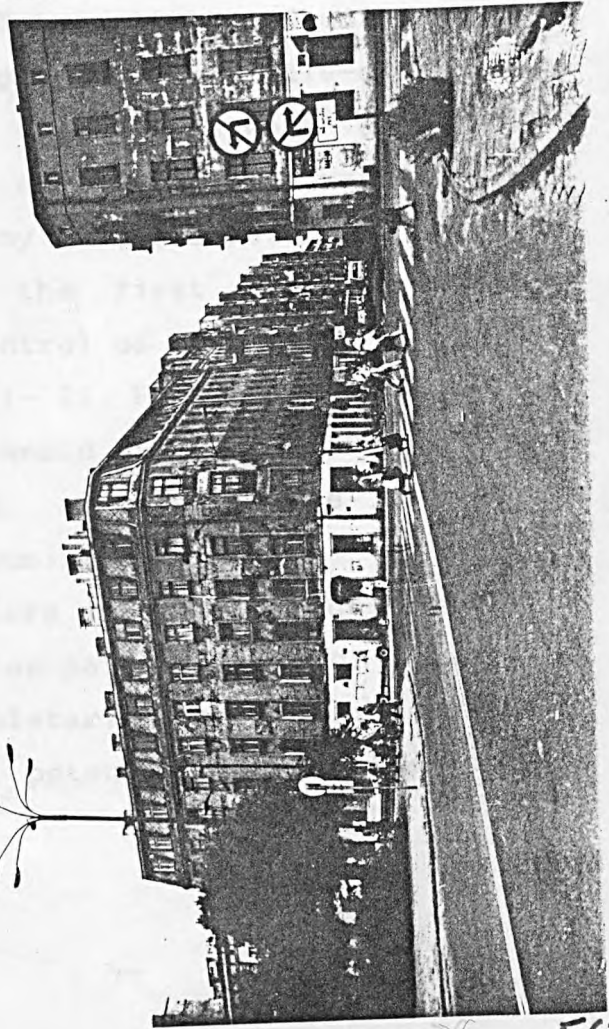


Figure D:

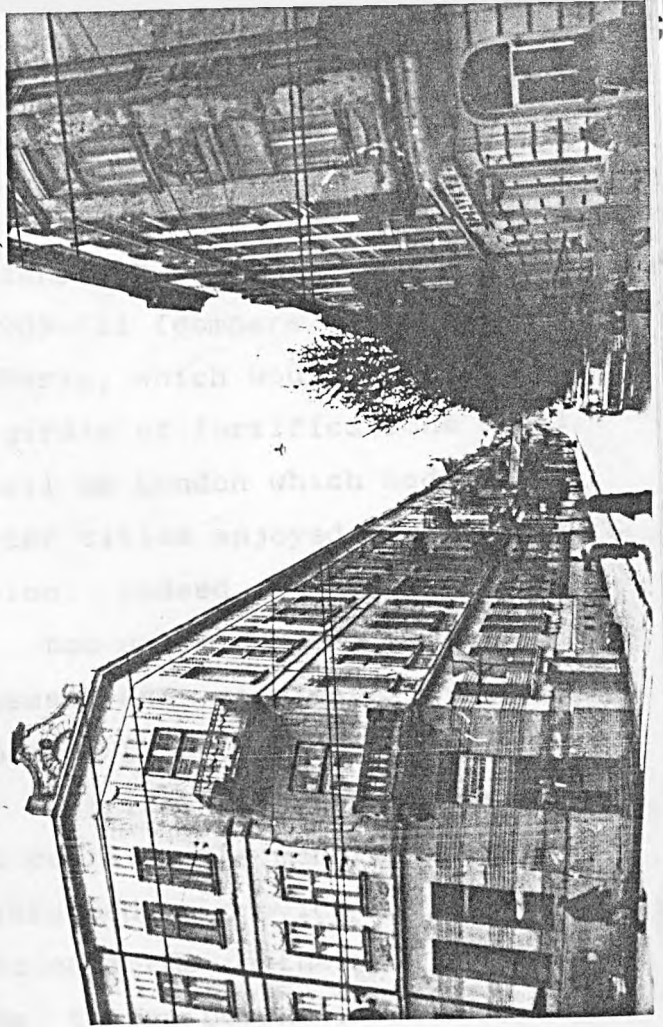
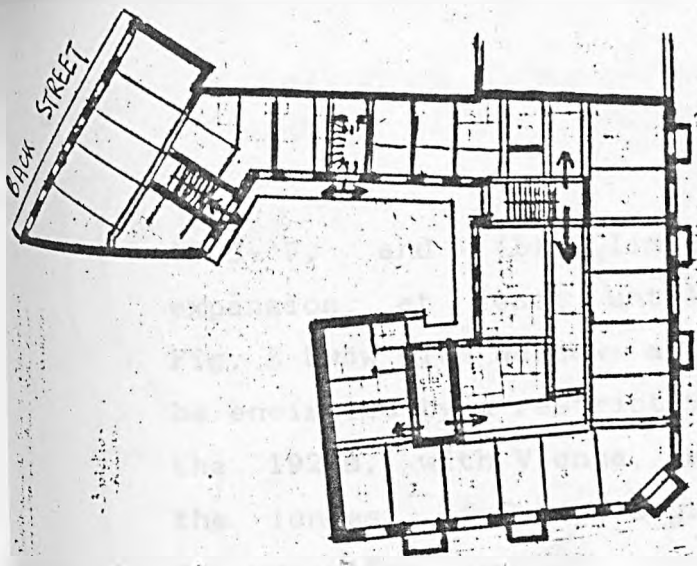


1. POZNAŃ (POSEN): ŚW. ŁAZARZ DISTRICT, c. 1910; FACADAL DECOR AS WELL AS GROUND PLAN IS TYPICAL OF BERLIN
2. ŁÓDŹ: DZIELNA 52/SKWEROWA (NEAR FABRYCZNA STATION) ATTIC FLATS RELATE TO WARSAW
3. KRAKÓW: OHRENSTEIN HOUSE 1911-13 STRADOM 27/DIETLA 42 WITH VIENNESE/ITALIAN-INSPIRED COMMUNAL BALCONIES
4. LWÓW (LEMBERG/L'VOV): 2-FLOOR STREET PROFILE OF KUTUZOVA (HETMAN TARNOŃSKI) - 1890s - 1905

2



563



4.

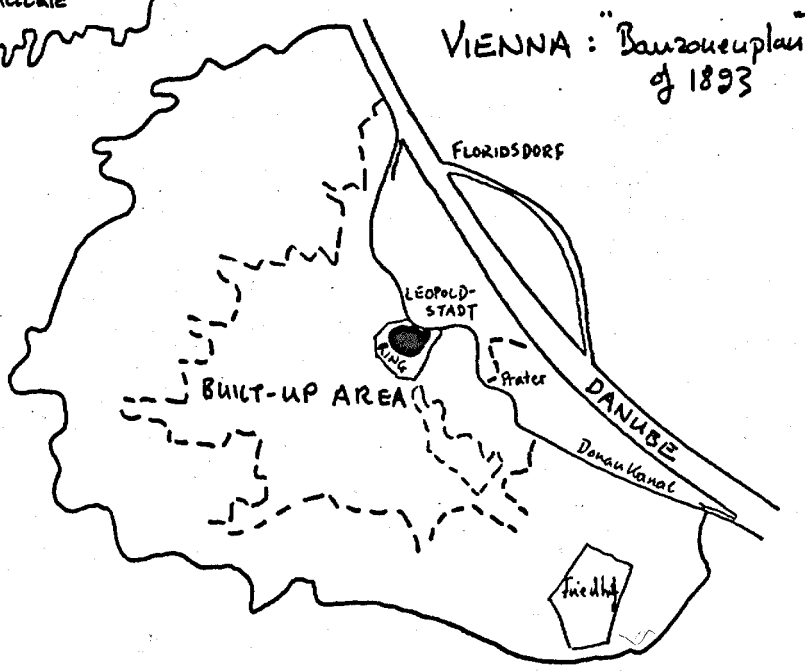
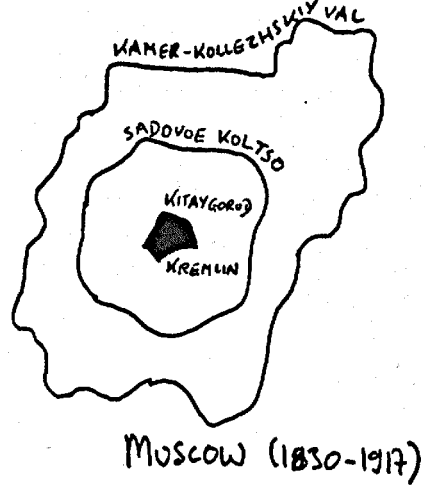
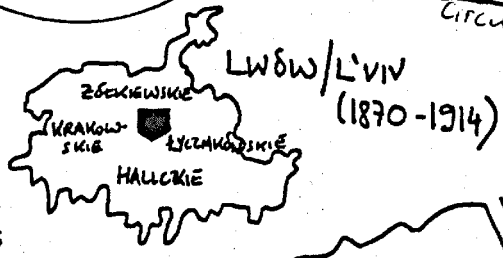
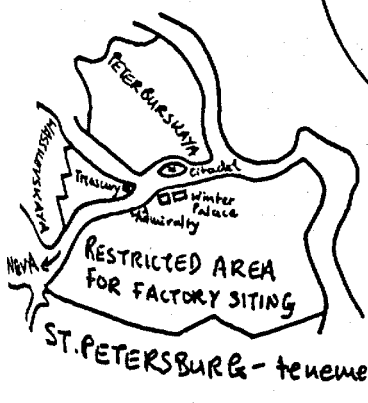
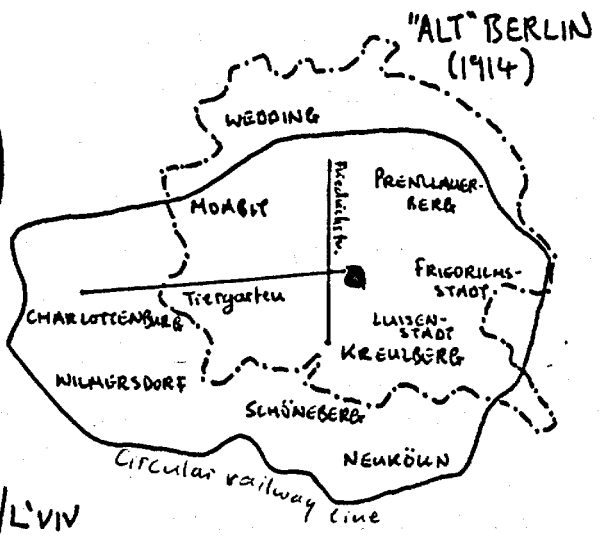
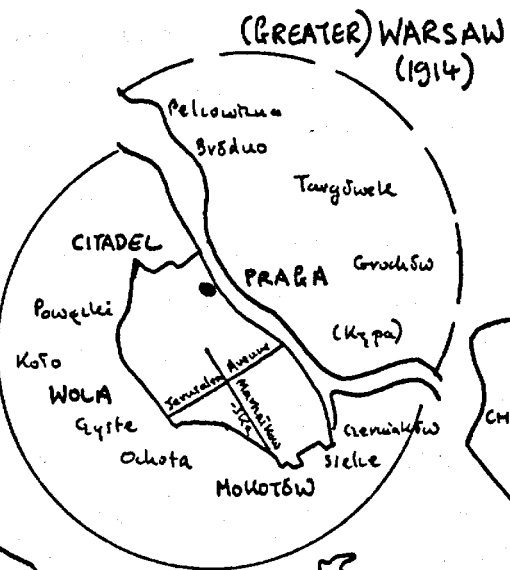
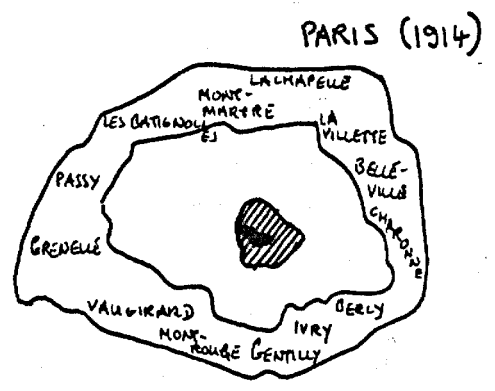
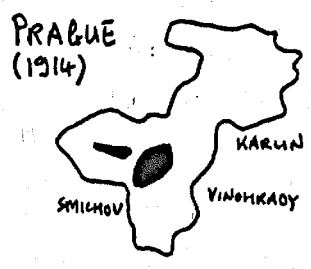
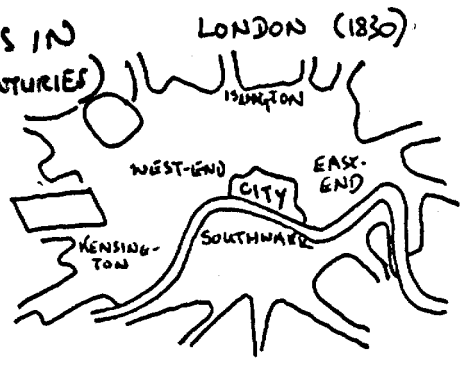
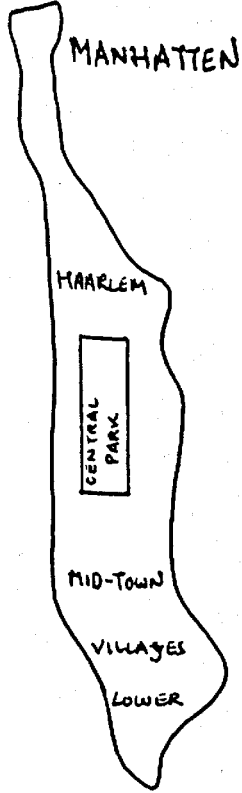


1905-'7, and (b) limitations on the city's spatial expansion, at least until 1909-'11 (compare especially in Fig. E Lwów with Warsaw; also Paris, which would continue to be encircled by a restrictive girdle of fortifications until the 1920s, with Vienna, as well as London which had by far the longest of Europe's greater cities enjoyed the freedom of unlimited spatial expansion; indeed, as 20th. century planners were soon to find out, too unlimited).

Theoretical urban processes and resultant building forms observed within the tenement barracks urban landscape have been verified through empirical research of remnant landscape units and tenement cells in the modern cityscape (Chapter 11). The thesis is intended to provide a framework for placing such remnant building forms in their historical context and in appraising their potential value to inner-urban regeneration. Eleven tenement case studies presented in Chapter 11 (pp. 443-'53) have been investigated in their present state (Summer-Autumn 1991). Studies A, B, C, E, F, H and K, representing standard "middle-class" or "upper middle-class" house types underwent apartment subdivision after 1945 when the new authorities, anxious to provide accommodation for as many citizens returning to the ruined leftbank quarters or the first post-war urban immigrants as possible, took control of all usable building stock in the Mid-Town (pp. 421-'2). Patterns of apartment allocation in such properties would appear to have altered remarkably little since then, reflecting the post-war regime's failure to solve the housing shortage.

Case studies C, G, J and L are immediately identifiable as housing accommodating better-paid members of Warsaw's working classes, or a proletarian aristocracy (i.e. artisans, builders and other potential candidates for a

Figure E: COMPARATIVE TERRITORIAL AREAS IN SELECTED CITIES (19TH/EARLY-20TH CENTURIES)



lower middle class). The predominance of single- or 2-room apartments in such "working-class" tenements discouraged post-war subdivisions and there are strong grounds for concluding the internal plan of such properties has little changed since the inter-war years and even pre-1914 era. Water and WC facilities are still communal on the upper 2 storeys of Ziota 83/5863 (case study G); a classic Warsaw version of the Viennese *Bassenahaus* working-class tenement, with 2 wash basins located in each of the 4 interconnecting corridors. Housing conditions in this block have not improved, although the number of apartments may have been reduced after the war by liquidating some attic apartments.

The series of tenement building components on Wolność 2A (formerly Nowolipie 80/2448A) represents a reformed, (upper) working-class housing type with a standardised building layout and apartment divisions, provoking doubts as to whether this house was actually put up during the study period or if in fact the pre-1914 factory building was not redeveloped in the 1920s in accordance with new building regulations introduced from 1919 by the Polish authorities.

Case study D and to a lesser extent K were redeveloped after 1947, although in both these truncated tenements the pre-war internal plan can be deciphered. Nowy Świat 22/1292 (D) is a typical example of the "commercial tenement" taking shape in the city centre before 1914; retail-trading functions continue to dominate on ground- and 1st.-floor levels, with 2 residential apartments on the 2nd. and 3rd. floors. In spite of apartment subdividing in Niecała 10/614G (K), followed up by its incorporation during the late-1960s into an 8-storey apartment block, housing conditions in this former bourgeois Mid-Town tenement have remained very superior to those in studies G, J and L

(formerly, and still essentially, working-class), but also in A, C, E and H (formerly Jewish owners with an entirely new set of tenants after 1945).

The regeneration of upper middle-class Warsaw tenements is clearly marked in studies B and F, where pre-war proprietors are already reclaiming ownership rights or/and affluent, western or western-style companies are being attracted to such prestigious properties and have provided funds for wholesale, or at least partial, renovation.

One final case study is missing; that of a wooden medium-sized housing type in the suburbs. A very small number of such properties has survived; e.g. at the back of Bródno Jewish Cemetery in Targówek district.

The model of tenement house typology in Warsaw has been formulated as a table which is based on chronological and locational factors. Diagramatic representation would need to be axiometric in order to account for both horizontal and vertical characteristics. The lack of photographic documentation for certain Mid-Town quarters; particularly the Nalewki and other constituent parts of the North-Western District of Muranów (i.e. Leszno and Okopowa), has hampered the compiling of an illustrative representation. Even though 5406 (almost entirely developed) of the total number of 6048 real-estate parcels in the Mid-Town municipal districts were in private hands, property development during the 1864-1914 period followed a strongly accented pattern of uniformity, reflected in the comparatively consistent urban physical structure of tenement cells arranged around closed courtyards. A system of standardised building models had already been devised at the start of the 19th. century by the French architect Jean-Nicholas-Louis Durand, pupil of Etienne-Louis Boullée, in his search for a universal

building methodology and an architectural analogue of the Napoleonic Code. Durand's model forms set the trend in 19th. century domestic as well as state-public architectural design of projecting in accordance with generally accepted model building forms (cf. Fig. F). The large-scale tenement may be interpreted as constituting the first building form designed on a scale to meet the demands of a rapidly expanding consumer economy; especially in major European and North American urban centres.

The marked absence in Warsaw's inner-suburban, working-class districts of tenement house property types, regarded as building forms fully evolved in relation to the socio-economic forces prevalent in the late-19th. and early-20th. centuries, is indicative of the tenement's failed or delayed diffusion down the social hierarchy.

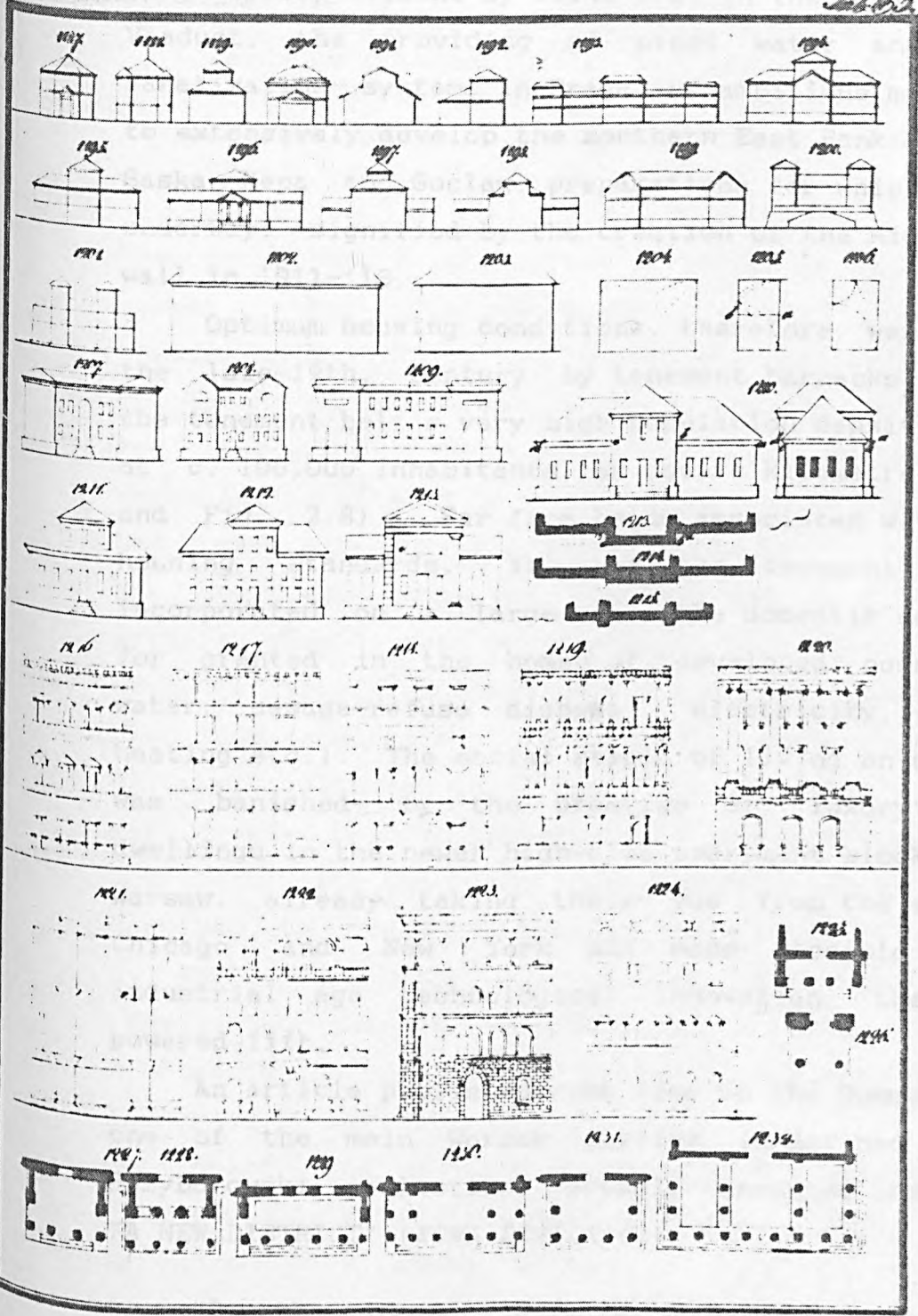
While "fully-evolved" proletarian tenement districts took shape in Berlin and Vienna, but perhaps surprisingly to a lesser degree in Paris, and the "back-to-back" for long provided the British working classes in most larger cities with some kind of standardised housing, in Warsaw underprivileged social groups were either crammed into predominantly singleroom flats above, below or, more frequently, on the edge of the overwhelmingly middle-class tenement belt; or, even more frequently, beyond the pre-1916 municipal districts in what tended to be improvised wooden housing. In "Russian" cities the tenement was yet further restricted to the propertied and privileged classes, reflected in richly-ornamented facades and interiors designed according to expensive programmes for additional social prestige (particularly in St. Petersburg where the burgeoning merchant-middle classes would have at least tried to dupe the Winter Palace, as well as in Moscow, Kiev,

Odessa and Riga).

Domestic servants in each of these cities, including Warsaw, accounted for a very significant part of the occupational structure (in Warsaw nearly 20% in the 1880s and 1890s, dropping somewhat up to the First World War). The "working" classes thus usually found accommodation in the tenements of inner city districts only where they fulfilled some kind of service for the middle classes, regarded as the true creators of and, on the whole, profiteers of the industrial age urban landscape. In Warsaw the day of the aristocracy was over; it had perhaps lived its final days of hegemony in the 1860s and 1870s when "palace" tenements were put up in quite significant numbers for the displaced rural nobility moving at this time into the cities. Following a building crisis in the 1880s (which could be interpreted as arising primarily from such a nobility's financial incapacity to remain in such palatial housing and was characterised by the subdividing of spacious apartments into more modest dwellings), a standardised tenement form comprising 3- or 4-room flats came to the fore as virtually the only domestic property type raised in leftbank Warsaw, with 1st. floor and especially 2nd., 3rd. or 4th. floor dwellings becoming the accepted norm. A gradual diffusion of tenement housing down the social hierarchy was beginning to make its mark on the inner fringe districts of Wola, Powiśle, as well as Okopowa and Towarowa "proletarian" quarters within the former customs wall, but this process was still a very long way from completion in 1914. The tenement houses of Praga tended to be considerably more modest than in leftbank Warsaw, but accommodated their own lower middle-class groups. The Vistula continued to separate West Bank Warsaw from its East

Figure F

Tabl. 65



18. F. Radwański, związki pionowe i poziome, w. Nauka budownictwa, Kraków 1842. tabl. 65

VERTICAL AND HORIZONTAL

Source: A. Rottemund

Bank suburb, although signs of greater urban integration were already evident by 1914; e.g. in the "Third Bridge" and Viaduct, the providing of piped water and underground canalisation systems in Praga and ambitious municipal plans to extensively develop the southern East Bank rural areas of Saska Kępa and Gocław, preparations for which were already underway, signified by the creation of the Miedzeszyń flood wall in 1911-'13.

Optimum housing conditions, therefore, were provided in the late-19th. century by tenement barracks, in spite of the tenement belt's very high population density (calculated at c. 100,000 inhabitants per square kilometre (pp. 213-'17 and Fig. 2.8). Far from being associated with inadequate housing standards, it was the tenement which first incorporated on a large scale the domestic comforts taken for granted in the homes of "developed" countries (piped water, sewage-refuse disposal, electricity, gas, central heating etc.). The social stigma of living on upper storeys was banished by the prestige of "luxury" pent-house dwellings in the newer high-rise apartment blocks of central Warsaw, already taking their cue from the skyscrapers of Chicago and New York and made possible by another industrial age technological innovation: the electrically powered lift.

An article published some time in the Summer of 1899 in one of the main Warsaw daylies (undefined in the F. Przyborowski collection) proudly announced under the title "A NEW DISTRICT" (*NOWA DEIELNICA*):

"On the site of the former Kronenberg residence at the corner of Marszałkowska and Hoża streets a group of 3- and 4-floor houses with outbuildings has been raised, among which are some very finely decorated examples of



urban domestic architecture. At the moment of writing work has been commenced on the laying of cobblestones and pavements; thus it may be assumed that the newly laid-out street will be open to traffic by the beginning of October. According to competent sources the new apartment blocks will provide accommodation for 10,000 people."

The group of 7 properties referred to by the article in street block designated by the 1919 property census commission no. 327 in fact housed 482 residents at just over one tenant per room (467 habitable rooms). Either plans for the properties on newly-demarcated Sadowa Street had dramatically altered in the meantime or, of course, an error had been made during printing; then again, the author with his undefined competent sources was a dilettante whose article should not be quoted in this thesis. There were, nevertheless, properties in the Mid-Town accommodating more than 1000 tenants; e.g. in the Jewish commercial district of Nalewki. Although conditions were undoubtedly considerably more crowded than in properties situated in street block no. 327 (of which the corner house on Marszałkowska street has survived to present; tenement case study "H" presented on p. 450), data from 1919 concerning street block no. 94 reveal an average recording of 3 rooms in habitable apartments and precisely 2 residents to a room (Table VII in the annex to Part I).

Apart from popular misconceptions concerning living conditions in Warsaw's tenement houses, probably provoked by harsh memories among the inter-war generations of economic depression and very stark social contrasts resulting in part from it, urban life among the Jewish community in the evolved tenement belt districts of Nalewki, "Za Żelazną

Brama" and Grzybów districts have been most blatantly misconstrued by publicists of Polish or other nationalities, confusing above all these merchant/middle-class quarters with the Jewish proletarian Okopowa and western end of Leszno commissariats (pp. 545-'6); interpreted as the Jewish urban analogy of the Polish suburban *biddonvilles* of Powązki or ramshackle working-class housing of Wola and large parts of Powązki urban fringe areas.

The intense urban development of the Nalewki prior to the 1880s as Warsaw's first identifiable tenement-barracks district (Plate Xd) and recording of a substantial proportion of tenement proprietors with German-Yiddish surnames (excluding an undoubtedly significant number of Jewish owners with polonised surnames) suggests the city's Jewish community played a fundamental role in creating the tenement-barracks-city, reflected in an overpopularised pre-war aphorism: "Your streets, our tenements" (*Wasze ulice, nasze kamienice*). Considering the sharp social contrasts between the Mid-Town tenement belt and semi-urban periphery, such sayings would hardly have enhanced the popularity of Warsaw's Judaic population among the Polish working classes. It should be born in mind that a broad divide existed in the Jewish community itself between proletarian and middle-class elements.

The one-day census results have revealed that as late as 1882 barracks-tenements were still largely absent from the city centre, indicating multi-apartment dwellings (i.e. exceeding 20 flats) had not evolved in pre- and early-industrial Warsaw. An early model of tenement house dwelling is thus presented by the "tenementised" former Lubomirski Palace on Zelazna Square, which according to an official report published in 1856 was already subdivided

into 31 apartments and inhabited by between 150 and 200 tenants (probably from around 1842 when the Jewish merchant Abraham Cohen had purchased the residence from the Krasinski aristocratic family). In 1882 the former palace had undergone further subdivision so that it consisted of 43 apartments and housed 275 people. The social structure would appear to have remained little changed throughout the 1864-1914 period, continuing to provide accommodation for merchants operating on the Zelazna Brama markets or Grzybów commission and brokers' shops on and around Grzybowski Square. In 1919 the ex-palace housed 209 tenants in 35 flats (the groundfloor had been given over to shops?).

Only in the 1920s and 1930s did the Mid-Town tenement really begin to lose its social prestige, underlined by continued apartment subdividing in many tenement districts; especially in the Western and North-Western districts, reflecting a marked decline in living standards among the city's middle-class Jewish residents (p. 544).

Warsaw as the capital city of Poland

The status of capital city need not be a prerequisite for large-scale urban aggrandisement; New York, Hamburg, pre-revolutionary Moscow, Barcelona, Manchester, Glasgow, Milan and Rotterdam amply justify such an assertion. The urban landscape of Warsaw during the period under investigation is seen to have been developing primarily under the influence, as in the above-mentioned cities, of economically-orientated forces rather than the political-representative and "cultural" functions playing such key

parts in the urban histories of Washington DC, Madrid, Edinburgh, Rome or post-17th. century Amsterdam (to a somewhat lesser degree in 19th. century St. Petersburg, Berlin and London).

National life, nevertheless, has tended to focus on the capital city. Political preeminence has lent tremendous advantages in economic growth; this especially being the case when the national capital enjoys a primary relationship to provincial centres, as has occurred in Britain, France and, more recently, most Third World states. Up to 1918, Warsaw had been developing as a metropolis on the basis of almost exclusively economic factors; its political importance, reflecting the Russian Poles' fate, was remarkably small. Sudden and great change came with the almost simultaneous collapse of the Romanoff, Habsburg and Wilhemian dynasties, permitting the establishment of the Second Polish Republic, whose political nucleus immediately became Warsaw. The context of Warsaw's continued development altered considerably within a newly-revived state whose political life it rapidly monopolised. While profiting indubitably from its new role, it ceased to be a commercial and financial centre of intercontinental importance; the perceived main factors contributing to its development during the 1864-1914 era as one of Eastern-Central Europe's leading cities. Trade with Russia and thus the Far East was no longer feasible; any chance of becoming a *Weltmetropole* was apparently lost. Under the impact of World War I and its aftermath, Warsaw had to trade in its economic *raison d'être* for political monopoly within the Second Republic's shaky frontiers:

"The political role played by inter-war Warsaw considerably outweighed its economic importance."

(M. M. Drozdowski. *Warszawiacy i ich miasto w latach II Rzeczypospolitej.*)

In his study "Warsaw as the Capital City of Poland" (*Warszawa jako stolica Polski*), the interwar publicist, S. Rychliński ardently asserted that:

"Warsaw is and must remain the country's capital in every meaning of the word. It must keep a finger on the pulse of political and economic life. It will attract out of pure necessity the nation's most capable and creative individuals".

Warsaw was to play the leading part in Poland's national renaissance (*Odrodzenie Narodowe*). In the French summary of the same book Rychliński concluded:

"Varsovie n'est pas seulement une grande ville, elle est avant tout la capitale du pays. C'est à Varsovie (...) que se forment les bases et se modèlent les traits caractéristiques de la civilisation polonaise, de même qu'à Paris se façonne une civilisation essentiellement française, et qu'à Londres se révèle une civilisation anglaise par excellence."

(refer to footnote 47 in "Notes")

This was a responsible and demanding role indeed. Such grandiose eloquence reflects an attitude probably prevalent in a young state desperate to prove itself. Rychliński's obvious desire to drive home the fact that Warsaw was "not only a great city", but "above all else" Poland's capital reveals something that he chose not to acknowledge; namely that the city which now served as the political seat and

theoretical cultural beacon of the Polish nation had taken shape during the long years of statelessness (1795-1918). Warsaw had become a metropolis before it had become the capital of modern Poland. Moreover, it had been developing up to 1914 in a totally different political and economic context to that which was to prevail under the Second Republic, and this city, which was intended by "patriots" like Rychliński, A. Lauterbach (pp. 183-'4) or M. Orłowicz (pp. 512-'14) to be the hub of a specifically Polish civilisation, was ethnically no more than half-Polish (cf. Table IV in the statistical annex to Part I).

The essential halting of trade with Russia after 1917, reinforced by the Treaty of Riga in March 1921 concluding the Russo-Polish War, ended abruptly Warsaw's commercial value as a transit centre between the West European, Russian and Far Eastern markets. A tremendous reorientation in the city's economic role and political status, with far-reaching social effects, took place thereafter.

In spite of its size, Warsaw after 1918 was the least suitably adapted of all the main East-Central European capitals to fulfil its new role. Bucharest and Belgrade, after all, had already functioned as seats of national government before the war; Prague had continued to operate as the regional capital for Bohemia and Moravia throughout the centuries of Habsburg rule, while Vienna and Budapest as imperial capitals deprived of empires, were faced with entirely different problems after 1918.

In this respect the considerably better-planned Lwów, as capital of an autonomous Galicia (1867-1918) within the less centralised Austro-Hungarian Empire, well endowed with imposing state and public buildings, such as the Galician *Sejm*, Jan Kazimierz University, Ossolineum Institute, etc.

more fully accorded with pre-conceived notions of a state capital than Warsaw.

There had been no opportunity to make Warsaw a Polish urban and architectural showpiece during its intensive development in the period c. 1864-1914; that opportunity did not really present itself until after the First World War in an independent Poland.

There were conflicting conceptions of a New Warsaw, reflecting various interpretations of Polish architectural history or more contemporary ideas in town planning. Dr. A. Lauterbach, for instance, turned his attention to the "Aesthetic Needs of Warsaw" (footnote 47). Like many Poles of the time, he regarded the national capital as a reminder of the long years of Russian domination; a chaotically-built late-19th. century Big City subjected to the limitations of tsarist stratego-military dictates (so easily overexaggerated?). It should be stressed that the "architectural anarchy" of historicist and eclectic styles, accentuated by contrasting building heights and differing land-uses in the classic *fin-de-siecle* metropolis; which taken as a whole seriously irritated Lauterbach, would have been all the more accentuated in Warsaw because it had served during the "tsarist" era as a meeting point, apart from as a cultural-ethnic battleground during a period of growing imperialism and officially-propogated chauvenism, between the Polish, Eastern European Jewish, Russian and German cultures, together with the markets of Central and Eastern Europe. Not only did Warsaw lack grand boulevards, rationally-planned public squares and representative edifices to front them, it lacked a clearly-defined centre, all of which, in Lauterbach's words, was "intolerable" and his main justification to call for wholesale reconstruction

"where complications and high costs are no argument". His advised programme envisaged reorganising the street network, the "architectural correction" of squares and the *polonisation* (*spolszczenie*) of the city's overall appearance. "American influences" were disdained almost as much as the Russian tenement houses were to be lowered to 3 or 4 storeys in the name of uniformity rather than hygiene, and the Russian orthodox churches, referred to as "poisonous fungi on the city skyline" (*trujące grzyby w pejzażu miasta*), should be demolished regardless of their artistic value (an extreme maxim indeed for a patron of the arts). Warsaw, in effect, was to be cleansed of its pre-1914 image:

"A Polish Warsaw must be western and must revert to its former, fine traditions while throwing off all traces of oppression and decline."

Lauterbach found his models, inevitably, in western cultural and architectural roots; above all in Ancient Rome, Paris of the Second Empire and Imperial Vienna. Costs and complications, nevertheless, proved the one fundamental argument against Warsaw's urban and architectural transformation under the Second Republic, for clearly there was no lack of enthusiasm for many of Lauterbach's propositions. However, not everyone was obsessed with the city's Polish character: the avant-gardists were influenced by utopian ideals of free-standing housing blocks and dispersed garden towns and they were to have their day, if only for a brief while, in the immediate wake of the city's wartime obliteration (e.g. the Syrkus and Brukalski architect couples). The academic classicists were enthused by the layout and proportions of St. Petersburg where many of them had studied before the First World War and it was



their style, somewhat ironically, which received greatest support from the inter-war authorities and their projects which are still stamped across the urban landscapes of central Ochota, Żoliborz but to a far lesser degree Mokotów and in spite of everything are not so very far removed in their functional monumentality from the "Stalinist" blocks of the 1950s. S. Starzyński, on the other hand, mayor of Warsaw (1936-'39) and a major instigator of an urban revival in the late-1930s, wanted to create a Polish Paris in a monumental modernist spirit. Each of these visions pointed to a new urban order and a new identity for Warsaw. The execution of any of these concepts on a large scale, even if it was capable of winning public favour, proved totally beyond the financial resources of inter-war Poland.

The regaining of Polish independence and Warsaw's long-lost status of a political capital did at least bring about a tangible alteration in housing construction. The property developer's virtual monopoly in the building industry was at long last questioned, although this is not to say the social and financial position of the city's landlords was especially threatened by central or not very autonomous municipal government after 1919 (according to the property census of that year 5406 of them in the Mid-Town *arrondissements* alone, although just 532 proprietors were in possession of more than 2 developed properties in the Greater Warsaw area). Although exceptions to the rule were inevitable and the chaos that had evidently reigned during the last years of Imperial Russia could not just be swept away, new building legislation introduced by the new Polish authorities from 1919, and to a very large extent based on the regulations which had prevailed during the 1813-1831-1864/'8 period of Home Rule under tsarist

dominion, essentially signified the end of tenement house building form as it had unfolded and spread before the Great War:

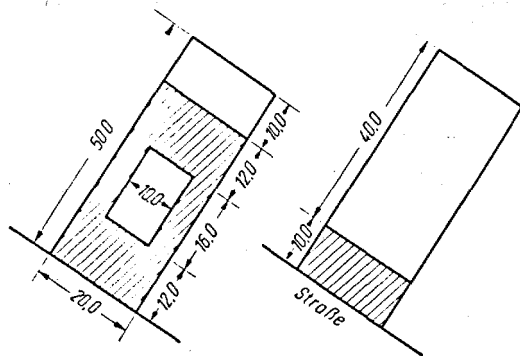


Abb. 12. Mögliche Wohnbebauung auf gleichem Grundstück nach den Bauordnungen von 1897 (links) und 1925 (rechts).

Judging from the almost complete absence in Warsaw of properties constructed during the 1920s and 1930s along the lines of standard, multi-building component tenement house plan, it would appear that new building legislation introduced in the city after 1919 took on a similar format as that in Weimar Berlin.

To extensively redevelop, however, the inner city at this time was a total impossibility. Consequently, while a number of monumental state institutes in the officially-approved pseudo-classical style were put up in the City Centre and some necessary improvements already called for during the tsarist period were carried out here, attention was turned to vacant, marginal areas lying beyond the densely built-up urban core; hence the proposed Marshal Piłsudski District in the Mokotów Fields and imposing Parisian-type boulevards of Żoliborz laid out on former military ground, but fronted by functional 3- or 4-storey blocks or the villas of the rich.

The city's serious shortage of adequate housing was a typical problem for the early-20th. century European metropolis. Although Warsaw's demographic growth was slower after 1918 than it had been at the turn of the century, and in spite of the impressive steps made in planned suburban development, the inner city districts remained chronically overcrowded, while peripheral wooden *biddonvilles* where living conditions were worst of all continued to grow, uncontrolled. Warsaw was still a city of remarkable contrasts.

The Second Polish Republic (*Druza Rzeczpospolita Polski*) had been declared from a former 18th. century noble palace adapted to serve the purposes of a seat of municipal government in the early-19th. century and subsequently extended in the 1860s after it had been burnt down by Polish insurgents. It was from the Town Hall that Mayor Starzyński made his last public statement to the all too brave citizens of Warsaw when their city was being razed to the ground by Nazi bombs, referring to the grand urban and architectural plans envisaged for the state capital that were never to be:

"I planned with my colleagues the building of a great Warsaw (...). And although ruins now lie where we conceived superb edifices and barricades run across the areas we set aside for public parks; even though our libraries are burning and our hospitals are being destroyed, Warsaw has not had to wait fifty or one hundred years to become great: the Warsaw that is at this moment defending Poland's honour is at the height of its glory and fame..."

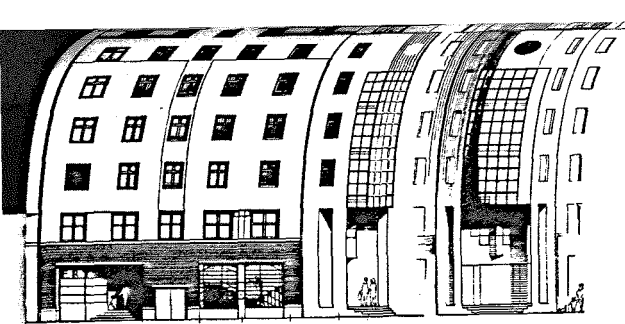
Evidently, if Warsaw could not just be another metropolis in the northern hemisphere it could always achieve some kind of apotheosis by fulfilling a perceived obligation of

gratifying Polish national honour no matter how unrealistic in the long - or this case the short - run the fight involved might be. The costs of the Second World War have already been summarised (pp. 415-'18).

The state institutions and ministries of the Second Republic would be rehabilitated after 1945 under the People's Republic. A square for military and public parades with a wide procession route lined by pseudo-classical buildings would be laid-out in the very heart of Warsaw during the 1950s, rather than in the Mokotów Fields where a similar concept in the name of the national hero, Marshal Piłsudski had been planned but hardly begun in the late-1930s. The very Catholic concept of a Temple of Providence as a religious and patriotic symbol for the Polish nation was replaced by another symbol, rather for the Polish people (*lud polski*) in the form of the Palace of Culture and Science. Piłsudski Square was renamed Victory Square.

The reconstruction and redevelopment phases under the aegis of central-socialist planning now belong to the past. Warsaw in the 1990s is faced with a housing shortage and serious infrastructural problems on a scale not far removed from those experienced in the early-20th. century (c. 2.0 million inhabitants in the "Capital City" Voivodship, compared to c. 1- 1.2 million in 1913-'14). Greatest building activity at the time of writing is dispersed over suburban districts and the "garden-town" satellite townships (apart from some housing cooperative projects, almost entirely the product of private investment; mainly single-family, semi-detached or 2- to 3- storey apartment houses). Some housing projects in inner urban areas, including the southern and western Mid-Town districts, Praga

as well as the city centre, in certain cases designed according to "traditional technology" (Fig. G), have begun to appear on the urban landscape since the late-1980s (compare with projects devised in connection with Berlin's *International Bauausstellung*, IBA 1984-'90).

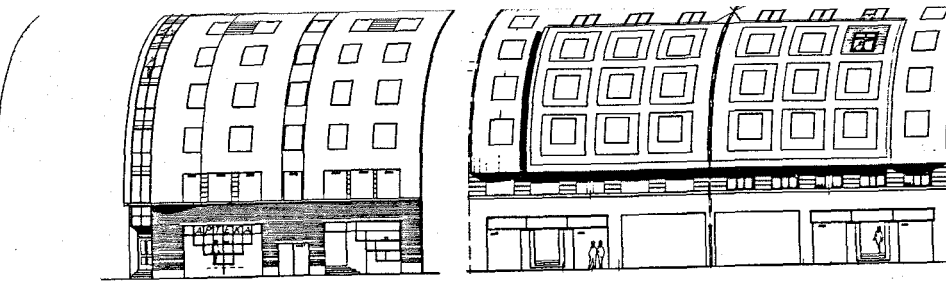
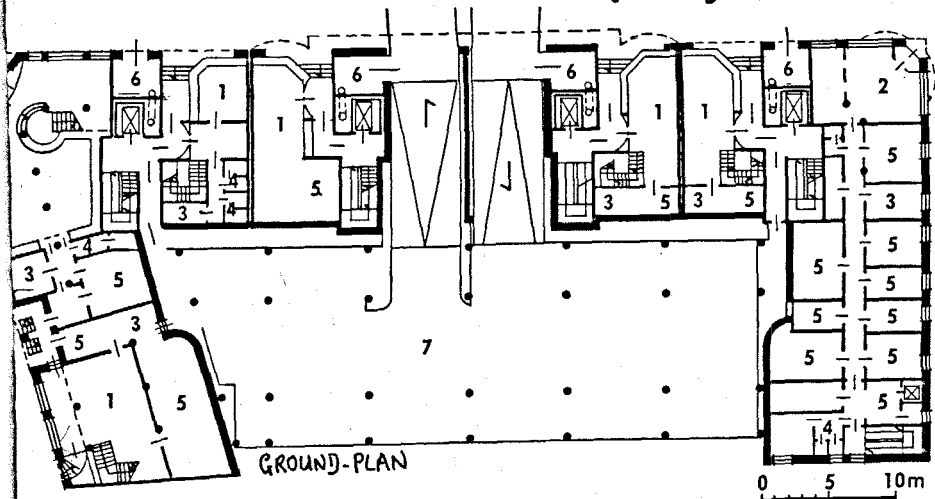


## Kamienice na Pradze

Przedstawione kamienice znajdują się na Starej Pradze i uzupełniają zachowany przedwojenny układ urbanistyczny. Podstawowym problemem projektowym było wpisanie się w starą zabudowę. „Ułatwieniem” było zastosowanie w nowych budynkach tradycyjnej technologii. Architektura tych kamienic jest wyrazem nostalgii za tradycyjnym miastem.

(TRANSLATION)

"These houses are situated in ("old") Praga and complement the preserved pre-war urban layout. A fundamental problem in the design was its adaptation to the old buildings (in the vicinity). This was facilitated by the application of traditional technology. The architecture of these houses is an expression of nostalgia for the traditional town/city."



## "PRAGA TENEMENTS"

Example: "Domestic & service buildings"

Location: Brzeska St. (at corner of Ząbkowska)

Architects: M. Miodecki  
J. Pleskaer  
M. Soudij  
(private company set up by J. Pleskaer and firm "APA")

Designed for employees of Polish State Railways (PKP)

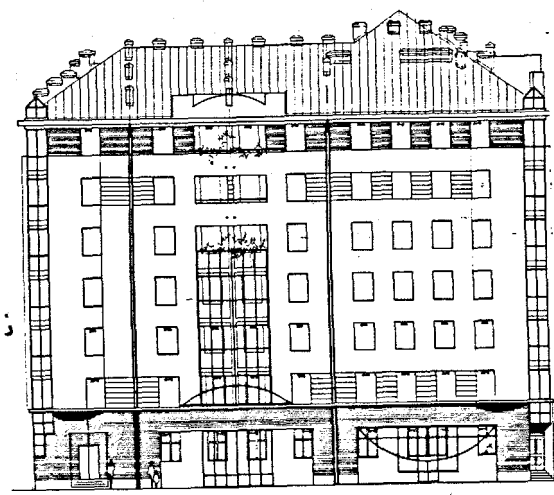
Project prepared 1986-'90

Building commenced Spring 1991

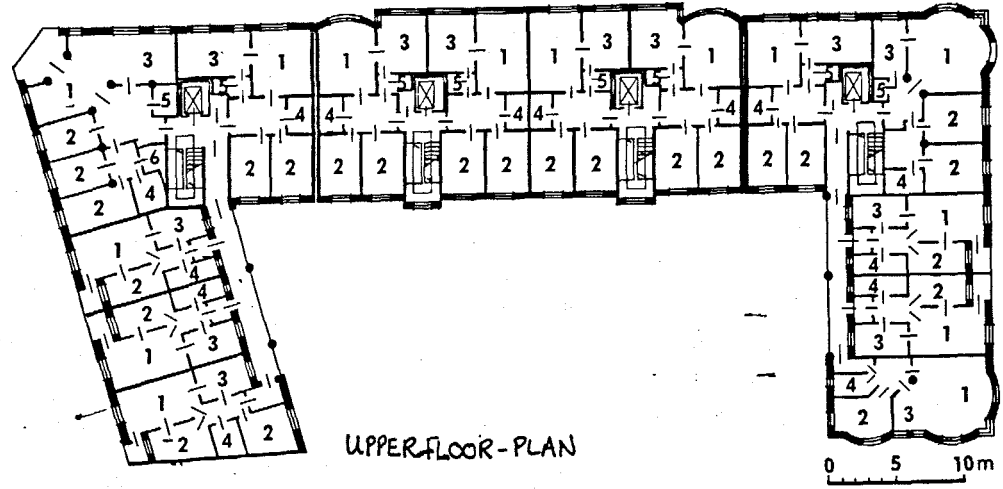
### KEY

GROUND-FLOOR-PLAN:  
1- shop; 2- chemists';  
3- director's room; 4- wash basins + WC; 5- other rooms;  
6- sleeping room; 7- carpark

UPPER-FLOOR-PLAN:  
1- day room; 2- sleeping room;  
3- Kitchen; 4- bathroom;  
5- WC; 6- cloak room



is an expression of nostalgia for the traditional town/city"



- 270 residents
- 73 apartments
- 60 parking places
- 7 shops/retail outlets
- "Traditional technology"
- stone-tile with concrete reinforcement

Source: "Architektura 1-91."

Chapter 9: TENEMENT HOUSE PLAN, BUILDING COMPONENTS

248. "Nieruchomości są skupieniami budynków na pewnym terytorjum. Liczba budynków w nieruchomości wskazuje na skupienia domostw i daje obraz dopełniający dane o gęstości zabudowy wyrażone przez liczby nieruchomości na jednostce powierzchni."
- Rezultaty*, vol.I, part I (chapter 9: "Nieruchomości według liczby budynków i materiału budowlanego").
249. "Tablice" XX-XXIV: buildings grouped according to primary function and building units
250. A.Rottermund, J.Chrościcki. *Atlas of Warsaw's architecture* op.cit. under entry "(ulica) Kanonia"
251. M.Kwiatkowski. *Architektura mieszkaniowa Warszawy* op.cit. For a comparison with the fate of the Berlin merchant's house during the Baroque era cf.: A.Gut. *Das Berliner Wohnhaus des 17. und 18. Jahrhunderts*, Berlin 1917, reprinted (East) Berlin 1984.
252. *Rezultaty...*T.I, cz.I, Tablica 27.
253. "W Warszawie przeważały utworzone w XVIII w. parcele o wymiarach ok. 21m szerokości i od 30 do 35m. głębokości." E.Szwankowski *Warszawa* op.,cit. s.206.
254. S.Herbst *Ulica Marszałkowska* op.cit. pp.96-'7 (in 2nd. publication).
255. J.Geist, K.Kürvers. *Das Berliner Mietshaus* op.cit. Chapter 4 ("Mietshaus Typologie und Grundrisse").
256. Ibid.
257. "Na Pradze odsetek domów koszarowych jest mniejszy, a na przedmieściach względnie niski."
- (and):
- "Domy średnie stanowiły dawniej normalny typ nieruchomości miejskich, to też w śródmieściu odsetek tych nieruchomości jest dość wysoki. Na przedmieściach dom średni jest jakby formą przejściową między domami wiejskimi i domkami rodzinnymi a nowoczesnymi koszarami mieszkalnymi."
- Rezultaty...* op.cit. T.I, cz.I, s.26.
258. J.Roguska. "Wpływ przepisów na kształtowanie zabudowy Warszawy...", (in) *Kwartalnik Architektury i Urbanistyki*

op.cit.

259. "Numer Hipoteczny", "Numer policyjny", "Oznaczony adres uliczny", "Ilość lokali" (and) "Ilość mieszkańców" for all developed properties in 1882 listed according to land registry number in: *Rezultaty spisu jednodniowego. Ludność miasta Warszawy, Warsaw 1883-'84.*
260. A.E.G.Morris. *History of Urban Form*, op.cit. (Chapter 4: "Mediaeval Towns")
261. "Murowany o 1 piętrze i oficyny po prawej i lewej ręce, stajnia i wozownia."  
*Wykaz nieruchomości miasta Warszawy z r.1819*, Warsaw 1819 (reprinted in 1966 under the direction of J.Kazimierski in series "Materiały do dziejów miast polskich", Institute Historii PAN).
262. H.Swiątkowska. *Taryfa domów miasta Warszawy...* op.cit.;  
W.Dzierżanowski. *Warszawski przewodnik na rok 1869*, op.cit.
263. A.Szczypiorski. *Warsawa (...) 1832-1868* op.cit.;  
K.Dumała. "Z badań nad rozwojem przestrzennym i budowlanym Warszawy w latach 1831-1867" op.cit.  
KRSW in AGAD and other relevant archival sources from AGAD.
264. J.Roguska. "Wpływ przepisów budowlanych na kształtowanie zabudowy Warszawy..." op.cit.
265. *Rezultaty...* "Tablica" 31, p.60 in chapter 10 of Part I ("Podział nieruchomości zabudowy według ich przeznaczenia, liczby budynków mieszkalnych i liczby domów frontowych").
266. "Budynki frontowe są zazwyczaj najlepszymi pod względem mieszkalnym, najlepiej urządzonymi budynkami w nieruchomościach. Posiadają niezmiernie ważną cechą podkreśloną przez higienistów - możliwość poprzecznego przewietrzenia mieszkań - z której mieszkania oficynowe normalnie nie mogą korzystać."  
*Rezultaty...T.I, cz.I, s.61.*
267. *ibid.* "Tablica" 32, (p.62).
268. *Днило Варшавского Губернского Правления* (in) "Referaty budowlane" of "Warszawski Rząd Generalny" records for the years 1870-1910 originally housed in AGAD archives, moved recently to the Archives of the capital City of Warsaw.
269. W.Koleżak. "Lichwa w budownictwie" (in) *Niwa* periodical, Warsaw 1896 (separate folder publications)



270. "Liczby te świadczą o zasadniczej zmianie struktury ruchu budowlanego w tym okresie, o nastawieniu się budownictwa głównie na produkcję mieszkań o wysokim standardzie przestrzennym, odpowiadającym - w ogólnej masie - przede wszystkim potrzebom szybko rosnącej klasy burżuazji i osiadających w mieście warstw ziemiańskich."  
J.Cegielski. *Stosunki mieszkaniowe...* op.cit. p.65.
271. "Итоги санитарной переписи города Варшавы", Труды постстанного санитарного комитета, vol.II, Warsaw 1893 (cf. especially "Серия А: Сведѣніем о домах").
272. K.Dumała. "Plany budowlane..." INSERT
273. cf. J.Cegielski. *Stosunki...* op.cit. p.70 for a breakdown of hallways (*przedpokoje*), bathrooms (*łazienki*) and "true" rooms (*pokoje*).
274. Krzywicki, Strzelecki in *Rezultaty spisu "Tom I", "Część I"*, p.89
275. J.Wiániewski. "Koniunktura gospodarcza w Królestwie Polskim 1894-1903" (in) *Ekonomista* 1930 ("Tom" III);  
S.Herbst. *Ulica Marszałkowska* op.cit. p.114 (1979 edition);  
J.Cegielski. *Stosunki...* op.cit. p.56; statistics in "Tablica" 1 taken from various sources 1860-1914).
276. E.Strzelecki. "Wygląd Warszawy dziś i przed 10 latami" (in) *Kronika Warszawy* (1928 annual)
277. J.Cegielski *ibid.*, pp.141-162: statistics on rents, in relation to the entire inner urban area of commissariats I-XV, originating from the 1891 census of sanitary conditions (in rubels) and 1919 (in Polish Marks). It is necessary to allow for not only the change in currency after 1915, but also rising costs of living (eg in J.Siegel *Ceny Warszawy* published in the 1940s) and the wartime drop in population; comparison as such is arguably pointless.
278. "Większość (...) to dawniej niue praktykowana przebudowa starych kamienic z zamianą parterów na hale sklepowe i nadbudowa pieter."  
*Zbiory W.Przyborowskiego*, vol.XVII, p.245 (quoted in Herbst, *Ul.Marszałkowska* p.115 of the 2nd. edition).
279. "Ze względu na różnorodność materiału budowlanego, wysokość, wieku itp., koniecznie było odręne traktowanie budynków i nieruchomości."

Chapter 10: TENEMENT TYPOLOGY AND DIFFUSION

280. J.Cegielski . *Stosunki mieszkaniowe...* op.cit.; cf. especially "Warunki mieszkaniowe" in "Część II" (1918-1945)
281. S.Herbst. *Ulica Marszałkowska* op.cit., p.79 (second publication)
282. *ibid.*, p.81
283. J.F.Geist, K.Kürvers. *Das Berliner Mietshaus* *ibid.* (1862-1945), "Teil 8"
284. J.Roguska. "Wpływ przepisów na kształtowanie zabudowy..." (in) *Kwartalnik architektury i urbanistyki*, T.XXV, R.1980, Z.3-4, op. cit. (p.291); J.Holewiński. *Ustawy i przepisy budowlane obowiązujące w różnych miastach.* (Przegląd Techniczny), R.36, Warsaw 1910.
285. In *Potrzeby estetyczne Warszawy* (Warsaw, 1915 op.cit.), the art historian A.Lauterbach complained:
- "Miasto rośnie wwyż zamiast wszertz"
- which reads almost like a slogan ("The city is expanding upwards rather than outwards"), but the author probably had reason for concern; after all, considerably larger cities such as Berlin or Vienna did not evolve 9-storey tenements, apart from the "Cedergren" Telephone Company office block exceeding 50 metres.
- The highest building in pre-World War I Warsaw, nevertheless, was a sacral rather than secular construction: the Alexander Nevski Orthodox cathedral bell tower.
286. S.Siegel. *Ceny w Warszawie w latach 1818-1914*, Poznań 1949; cf. "Tablice" 7, 11, 15, 62 and 70
287. J.Cegielski. *Stosunki mieszkaniowe Warszawy...* op.cit.; pp.156-'8, including "Tablica" 37
288. D.J.Olsen. *The City as a Work of Art*, op.cit. p.156 and illustration 69 (compare with facade of Hoża 57/5106, tenement case "B" in Chapter 11)
289. S.Zieliński. *Koledzy z jednej klasy*, Warsaw 1956
290. J.H.Bater in *St.Petersburg. Industrialisation and Change 1870-1914* op.cit. referred to the Kohl model in his analysis of residential patterns in the tsarist capital (although mistakes appear to have been made during publication).
291. J.Cegielski. "Komorne jako podstawowy problem kwestii mieszkaniowej. Czynniki a możliwości płatnicze robotników" in *Warunki mieszkaniowe Warszawy...* op.cit. pp.141ff;  
*Itogi sanitarnoy pieriepisi...* op.cit. ("Tablice" I-XI for the 9 urban regions, *кварталы*, in part II)
292. J.Roguska. "Warszawskie echa nowych koncepcji w

- planowaniu zabudowy czynszowej na początku XX wieku" (in) *Studia do Teorii i Historii Architektury i Urbanistyki*, T.XVI, R.1982, op.cit.; "Rycina 9"
293. Data based on "Tablice" 15-17 in introductory text to main statistical findings of the survey and "Tablica XL ("Ogólny podział nieruchomości według kategorii właścicieli");" *Rezultaty spisu nieruchomości...* op.cit., Część I, Część II (Tom )I

#### Chapter 11: EMPIRICAL RESEARCH IN THE MODERN URBAN LANDSCAPE

294. e.g. A.Ciborowski. *Warsaw: a City Destroyed...*op.cit.; E.Ringelblum. *Kronika getta warszawskiego*, Warsaw 1956; K.Dunin-Wasowicz. *Warszawa w latach 1939-1945*, Warsaw 1984; J.Ciechanowski. *The Civilian Population during the Warsaw Uprising*, London 1970 (subsequently printed in Poland; ie in 1988)
295. W.Tomkiewicz. *Straty kulturalne Warszawy*, Warsaw 1948  
J.Cegielski. *Sytuacja mieszkaniowa i potrzeby mieszkalne w Warszawie*, (in *Dom. Osiedle. Mieszkanie.*, 1947 nr.4-5, subsequently published as a pamphlet)
296. *Studium projektowe rewaloryzacji i zabudowy rejonu ulicy Nowogrodzkiej w Warszawie*, commissioned by the Warsaw Capital city Voivodship chief conservator; minimal number of copies published for official use; cf. articles in *Kwartalnik Architektury i Urbanistyki*, *Kronika Warszawy*, *Rocznik Warszawy*, *Spotkanie z zabytkami*, *Stolica* as well as J.Kasprzycki and M.Stępiński in *Sycie Warszawy* joined by J.Zieliński in *Gazeta Wyborcza* since about December 1990; cf. especially "Wszystko o Pradze" ("Everything" -not exactly - "about Praga" in *Spotkanie z zabytkami* nr.5 1986 as a good example of the growing concern in the 1980s about the fate of Warsaw's 19th-century architectural heritage and housing stock. Virtually all of the periodicals listed above have ceased to operate during the past 10 or so months through lack of financial support; only the daily newspapers *Sycie Warszawy* and *Gazeta Wyborcza* continue to publish every week or so something on the subject of Warsaw's pre-war architecture.
297. Refer. to "Literature Survey" under "The Warsaw Tenement"
298. cf. in particular Z.Stępiński. *Siedem placów Warszawy* op.cit.
299. This slogan was borrowed from an article appearing in the bi-monthly (no longer operating) *Zeszyty Architektury Polskiej*: "Konfrontacje warszawskie '86" ("Za Żelazną Bramą: od osiedla do śródmieścia"), Pol.ISSN 0239-35,49, 1986 nr.6 (19)

300. Komisja Badań Dawnej Warszawy. *Szkice Nowomiejskie*,  
Warsaw 1961;  
*Szkice Staromiejskie*, Warsaw 1955.
301. S.Herbst. *Ulica Marszałkowska*, op.cit. (cf. in "Wstęp":  
"Problematyka historii miasta i ulicy", pp.22-'3 in  
2nd. edition)
302. E.Szwankowski. *Ulice i place Warszawy*, op.cit. under  
"Chmielna" and "Rutkowskiego" for concise summaries of  
the street's past and its post-war redevelopment.
303. *Wymiary posesji i gruntów miasta Warszawy*, 1790, also  
known as "Schema" (ie a schema of Warsaw's real-estate)  
in AGAD (Main Municipal Archives), "Warszawa  
ekonomiczna" syg.23-28:  
25. 1000-1499 (under Land Registry no.1260)  
26. 1500-1999 (under nos. 1523-1565)
304. *Wykaz nieruchomości miasta Warszawy*, op.cit.  
(translated from the description of real-estate no.1260  
under "Ulica Chmielna" in the then Vth. *cyrkuł*)
305. Real-estate file no.1260, 1st.volume covering the  
period 1818-c.1860 is housed in a branch of the Warsaw  
Municipal Archives at Puławy. M.Kwiatkowski refers to  
the first stage in the subparcelling of 1260  
(*Architektura mieszkaniowa Warszawy...* op.cit.;  
str.389), but makes no mention of the plot's later  
history.  
The atypical, 6-bay Nowy Świat elevation of  
no.29/1260 first attracted my attention to this  
property. Vestiges of the 2-floor middle elevation were  
identified on pre-war photographs, giving rise to the  
hypothetical plan of J.Gajewski's original town house.  
Only reference to relevant Land Registry records could  
verify this hypothesis in the absence of iconographic  
evidence, although the Koriot and Świątkowski maps  
draughted between 1820 and 1853 did at least record the  
initial groundplan. Kwiatkowski had already discovered  
the detailed plans contained in the earliest  
real-estate file for 1260 on the basis of which he came  
to the same conclusions as myself.
306. "Domy były jeszcze wtedy nieduże, jedno-,  
dwupiętrowe, nierzadko drewniane.  
Kamienice-czynszówki budowane przede wszystkim z  
myślą o dużym dochodzie, pojawiły się masowo w  
drugiej połowie XIX wieku."  
S.Kowalska-Glikman. *Drobnomieszczaństwo w  
dziewiętnastowiecznej Warszawie* op.cit.  
("Kamienicznicy", pp.153-'8)
307. *ibid.* p.155:  
"Druga połowa XIX wieku, a zwłaszcza jej ostatnie  
dziesięciolecie, zmieniły mentalność miejskich klas  
posiadających. Przyszli ludzie nowi,  
przedsiębiorcy, właściciele większych i mniejszych  
kapitałów, którzy kaptał ten chcieli efektywnie

zainwestować."

308. S.Herbst in *Ulica Marszałkowska* devotes a chapter to this doldrums period which he titled "The Lean Years" (*Lata chude*); pp. 40-70 in the 2nd. publication.
309. *Architektura i Budownictwo*, special edition 1928 no.11 devoted to planning history in Warsaw ("Plany Regulacyjne Warszawy Dawnej i Nowej"); cf. in particular:  
"Dom handlowy w rozwijającym się City miasta stołecznego Warszawy" (Rys. 14)  
"Dom biurowy" (Rys. 15)  
"Przemiana domu mieszkalnego na biurowy" (Rys.16)
310. Cases of tenants assigned by the authorities in 1945/'7 - c.1989/'90 to flats in formerly private property predating the last war being forced by revindicated owners to move out or offered financial compensation or at best alternative, often inferior quality, housing by the state-directed municipal authorities who put them there in the first place have become frequent during the past 12 months (time of writing Sept. 1991). In the worst cases a tenant may find himself without a legal leg to stand on; the right to abode guaranteed between 1945 and 1990 by a person's registration at a given address (*zameldowanie*) no longer operates in post-Peoples' Poland.
311. T.Jaroszewski. *Pałac Szamoykich na Foksal*, Warsaw 1987;  
S.Łoza. *Architekci i budowniczowie w Polsce*, Warsaw 1954 (under entry for architects "A.Spitzbarth")
312. D.Watkins. *A History of Western Architecture*, London 1986;  
W.Braunfels. *Urban Design in Western Europe. Regime and Architecture 900-1900*, op.cit.
313. A.Eisenbach op.cit.  
W.Smoleński op.cit.
314. S.Bystroń op.cit.  
"Town within a Town: the Western Districts of Warsaw"
315. A.Szczypiorski. *Warszawa w latach 1806-1831* op.cit., pp.37-44
316. M.Drozdowski. "The Fischer Diaries" (in) *Polin* vol. III op.cit.
317. A.Sobieszczański. *Wybór publikacji* (facsimile) op.cit.
318. S.Szymkiewicz. *Warszawa na przełomie XVIII i XIX wieków w świetle pomiarów i spisów*, Warsaw 1959
319. J.Bystroń. *Warszawa* op.cit. quote taken from p.258
320. A.Sobieszczański. *Wybór publikacji* op.cit. pp.23-34 in vol.II of the facsimili publication.
321. B.Singer *Moje Nalewki* op.cit.; quote taken from p.86 ("Dzielnica biedoty")
322. M.Orłowicz. *Przewodnik po Warszawie*, Warsaw 1922
323. B.Singer. *Moje Nalewki* op.cit. p.11  
"(...) mieszkaliśmy na Nalewkach 37 w dużym domu o trzech podwórzach. Trzy pokoje z kuchnią dla

siedmiu osób nie uchodziło wtedy za mieszkanie ciasne."

Note: no.37 had two, not three courtyards, although it is likely that the first of these was connected to the backyard of either 39 or 35, or alternatively that the back courtyard of no.37 could be entered from Kupiecka Street via no.39 (refer to plate VIa in Chapter 6).

324. Ibid. p.9 ("Warszawa nieznaną" - "The Unknown Warsaw")
325. Refer for example to the H.Świątkowski plans (1852) in *Taryfa Domów Warszawy* op.cit.
326. S.Herbst. *Ulica Marszałkowska*, pp.82-'3
327. Ibid. Herbst referred extensively to records of the Building Committees activities between 1818 and 1868, many of which have survived.
328. B.Singer *Moje Nalewki*, op.cit.; p.8 ("Warszawa nieznaną")
329. Zbiory Przyborowskiego, T. XI (c.1873), p.329
330. H.Werwicka. "Houses of Prayer in 19th.century Warsaw", *Polin* vol.IV, op.cit.
331. Plany Lindleyowskie (Archiwum miasta stołecznego Warszawy), *blok 22*  
Properties of street block defined by the lines of intersecting streets Nalewki, Gesia, Dzika and Miła were connected to the water and sewer system after 1890. It has been possible, therefore, to establish the groundplans of these properties as they stood in that year.
332. P.Wróbel. "Jewish Warsaw before the First World War", *Polin* vol.III, p.164.
333. *Rezultaty spisu nieruchomości i mieszkań...*  
op.cit.:  
Volume I, Part II ("Tablica" XIII)  
Volume II, Part II ("Tablica" VIII)

I  
ANNEX  
(PART I)

PROPERTY AND APARTMENTS STATISTICS

/taken from the results of the 1919 property census for Warsaw/

Table I :

GENERAL CLASSIFICATION OF DEVELOPED AND UNDEVELOPED PROPERTIES\*

District /okrag/  /arrond- isse- ment/	overall number of properties	Properties recorded as :								
		developed				undeveloped				
		in a good state of repair	in need of repair	Total	under construction	farmland	industrial and commercial	not in use	Total	
1	2	3	4	5	6	7	8	9	10	
I	459	416	3	419	6	4	9	21	34	
II	435	411	3	414	3	6	4	8	18	
III	661	566	3	569	2	44	20	26	90	
IV	253	231	-	231	-	6	11	5	22	
V	495	413	2	415	2	17	21	40	78	
VI	486	429	1	430	5	21	14	16	51	
VII	565	501	1	502	2	20	15	26	61	
VIII	476	428	-	428	2	3	41	2	46	
IX	358	296	2	298	5	45	5	5	55	
X	508	465	-	465	5	8	8	22	38	
XI	515	474	-	474	6	17	6	12	35	
XII	321	312	1	313	1	4	2	1	7	
XIII	516	473	-	473	1	12	3	27	42	
XIV	656	476	2	478	5	60	16	97	173	
XV	671	471	6	477	4	104	16	70	190	
MID-TOWN I-XIII	6048	5415	16	5431	40	207	159	211	577	
PRAGA XIV-XV	1327	947	8	955	9	164	32	167	263	
SUBURBS XVI-XXVI	6176	3774	21	3795	10	2188	30	153	2371	
GREATER WARSAW I-XXVI	13,551	10,136	45	10,181	59	2559	221	531	3211	

\* cf. "Tablica I" in "Rezultaty...", Vol. I, Part II : "Podział nieruchomości według zabudowania i użytkowania".

Table II :

## GROUPING OF DEVELOPED PROPERTIES ACCORDING TO NUMBER OF APARTMENTS\*

District /okrag/ /arrond- isse- ment/	Developed properties in good repair	Properties with no flats	Developed properties composed of ::													Total number of apart- ments
			1	2	3	4	5	6-10	11-20	21-30	31-40	41-50	51-100	over 100 not known		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
I	416	6	5	9	7	13	14	53	116	68	44	31	41	3	6	10,348
II	411	5	6	2	4	5	9	43	127	80	60	29	35	5	1	10,398
III	566	9	25	12	18	8	13	44	98	76	97	58	96	9	3	17,495
IV	231	1	7	3	1	1	2	1	13	38	33	34	78	18	1	12,108
V	413	5	19	15	11	10	4	16	53	42	68	56	103	11	-	15,296
VI	429	6	27	13	20	8	10	27	45	54	73	47	81	17	1	14,775
VII	501	3	12	14	7	6	9	39	72	79	69	62	106	17	6	18,502
VIII	428	2	15	11	2	5	4	14	52	81	101	49	82	5	5	14,962
IX	296	6	18	7	12	15	7	26	47	49	37	24	38	7	3	8,102
X	465	3	12	8	12	4	7	38	134	116	61	35	31	2	2	11,362
XI	474	5	25	12	11	5	10	18	80	101	98	46	52	5	6	13,694
XII	312	5	2	2	7	4	13	47	91	65	33	16	19	4	4	7,363
XIII	473	4	14	17	7	4	8	29	95	124	74	44	44	5	4	13,470
XIV	476	8	16	15	17	12	17	76	107	66	53	35	47	4	3	10,915
XV	471	1	36	24	25	18	14	69	113	69	34	26	30	5	7	9,479
XVI	418	2	68	32	24	24	15	56	68	47	6	7	15	6	469	
XVII	337	-	63	66	36	27	19	73	43	4	1	3	1,824			
XVIII	244	2	16	24	18	27	19	88	42	5	3	-	1,767			
XIX	150	1	10	10	12	15	12	35	26	17	1	2	-	1,839		
XX	311	2	37	42	24	31	18	59	57	28	1	3	-	2,860		
XXI	136	-	43	29	17	12	8	9	9	5	4	-	700			
XXII	403	-	32	45	25	27	28	66	83	44	5	2	1	5,699		
XXIII	413	-	48	53	35	24	18	57	63	48	6	7	-	6,345		
XXIV	442	-	52	52	33	37	27	105	107	22	5	2	3,570			
XXV	474	1	37	71	33	45	24	153	94	12	1	3	3,421			
XXVI	729	2	144	154	69	84	55	146	57	14	2	2	3,567			
MID-TOWN I-XIII	5415	60	187	125	119	88	110	395	1023	973	2	2	9	3	42	167,839
PRAGA XIV-XV	947	9	52	39	42	30	31	145	220	135	2	4	4	10	20,934	
SUBURBS XVI-XXVI	4057 3774	10	552	578	326	353	243	847	649	246	2	2	7	26	38,061 33,170	
GREATER WARSAW I-XXVI	10,419	79	791	742	487	471	384	1387	1871	1354	2	8	1	6	78	226,572 221,403

\* cf. "Tablica II" in "Rezultaty...", Vol. I, Part II: "Podział nieruchomości wg. liczby mieszkań".



Table III :  
GROUPING OF DEVELOPED PROPERTIES ACCORDING TO NUMBER OF INHABITANTS

District /okrag/ /arrond- isse- ment/	Developed properties uninhabited	Properties inhabited by :																			Total number of resi- dents
		1	2	3	4	5	6-10	11-25	26-50	51-100	101-150	151-200	201-250	251-300	301-400	401-500	more than 100	Unknown			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
I	416	11	-	1	1	1	2	21	52	80	120	50	40	19	7	4	3	1	3	36,335	
II	411	8	-	2	3	1	3	5	34	92	131	56	29	12	13	12	5	2	3	40,429	
III	566	11	-	6	4	7	9	27	53	51	102	86	77	46	39	33	5	8	2	73,746	
IV	231	8	1	1	2	-	-	5	3	9	26	34	37	27	23	31	12	10	2	48,354	
V	413	8	1	5	2	2	1	22	32	24	67	48	67	45	32	30	14	3	10	62,737	
VI	429	9	-	4	7	9	10	30	29	41	55	63	55	45	23	35	8	4	2	59,530	
VII	501	8	-	2	4	4	5	16	36	44	92	86	70	46	34	29	15	8	2	76,532	
VIII	428	11	2	5	5	1	2	5	15	21	88	76	82	54	21	24	6	7	3	65,587	
IX	296	8	1	1	8	2	2	17	40	32	55	87	-	21	13	5	-	1	3	29,275	
X	465	5	-	1	-	1	4	15	36	70	172	98	33	14	6	3	2	-	5	40,460	
XI	474	8	1	4	2	8	5	21	33	38	109	122	61	31	13	10	5	1	2	54,230	
XII	312	9	-	-	1	2	-	10	43	77	86	39	25	7	2	4	2	-	5	23,847	
XIII	473	6	-	1	2	1	-	18	30	30	154	139	47	22	5	5	4	1	8	51,144	
XIV	476	8	1	5	11	8	6	34	63	98	91	57	40	24	10	7	4	1	8	39,676	
XV	471	4	5	5	9	8	15	40	85	72	104	49	29	16	9	8	1	3	9	34,930	
XVI	418																			21,876	
XVII	337																			5,097	
XVIII	244																			5,018	
XIX	150																			4,838	
XX	311																			7,576	
XXI	136																			4,141	
XXII	403																			18,184	
XXIII	413																			15,439	
XXIV	442																			9,231	
XXV	474																			9,543	
XXVI	729																			8,567	
MID-TOWN I-XIII	5415	110	6	33	41	39	43	212	436	609	1257	984	623	389	231	225	81	46	50	662,206	
PRAGA XIV-XV	947	12	6	10	20	16	21	74	148	170	195	106	69	40	19	15	5	4	17	74,606	
SUBURBS XVI-XXVI	3774	58	29	77	119	151	216	848	1051	618	361	118	46	30	11	4	1	1	55	109,510 109,645	
GREATER WARSAW I-XXVI	10,136	180	41	120	180	206	280	1134	1615	1397	1813	1208	738	459	261	244	87	51	102	846,322	

\* cf. "Tablica III" in "Rezultaty...", Vol. I, Part II : "Podział nieruchomości wg. liczby mieszkańców".

Table IV :

REGISTERED INHABITANTS IN 1910 AND 1913 AND RELIGIOUS DENOMINATIONS  
/1910/ IN THE CITY OF WARSAW<sup>+</sup>

District /Cyrkuł/ 1	Number of residents in 1910 2	Religious denominations /%/					Number of residents in 1913 8	
		Roman Catholic 3	Judaic 4	Russian Orthodox 5	Lutheran 6	Calvinist, "Mariavites" Armenians etc. 7		
I	43,021	<u>80.69%</u>	12.24%	4.76%	1.87%	0.44%		I
II	43,803	<u>56.11%</u>	40.52	2.39	0.89	0.09	121,943	II
XII	26,573	<u>52.49%</u>	35.96	6.76	1.20	4.19		XII
III	74,038	31.98	<u>63.09%</u>	1.15	1.22	2.56	81,698	III
IV	55,997	6.20	<u>92.59%</u>	0.97	0.19	0.05	54,745	IV
V	72,394	28.00	<u>69.94%</u>	1.56	0.42	0.08	75,961	V
VI	66,958	<u>73.57%</u>	22.54	2.05	1.37	0.47	74,566	VI
VII	78,759	<u>59.11%</u>	35.56	1.93	2.39	1.01	83,590	VII
VIII	67,793	45.28%	<u>48.73%</u>	3.07	2.60	0.32	70,124	VIII
X	42,094	<u>85.19%</u>	6.54	4.19	3.62	0.46	50,128	X
XI	39,449	<u>77.77%</u>	6.06	11.55	3.45	1.17	42,239	XI
XIII	58,695	<u>52.99%</u>	30.57	5.13	4.22	7.09	99,761	XIII
IX	34,016	<u>77.88%</u>	7.88	9.59	3.58	0.41		IX
XIV	39,586	<u>62.88%</u>	23.18	11.88	1.29	0.67	90,375	XIV
XV	38,003	<u>57.24%</u>	34.79	5.14	1.45	1.38		XV
WESTBANK	703,590	60.06%	34.00%	4.00%	1.40%	0.60%	754,755	I-XIII
EASTBANK	77,589	60.06%	28.99	8.41	1.34	1.2	90,375	XIV/XV
CITY OF WARSAW	781,179	Poles 428,048	Jews 306,071	Russian 32,210	German 14,044	Other 809	845,130	

cf. Annual statistical publications of Warsaw City Council :  
"Ludność Warszawy w 1910r." /and/ "Ludność Warszawy w 1913r."

Table V :

## DEMOGRAPHIC PATTERNS IN THE OUTER CITY, 1890-1919\*

Rural Parish "gmina"	Number of "temporary" and "permanent" residents recorded in :				Post-1916 municipal "okręgi" /arrondissements/			
	1890	1910 /according to suburban "village", "colony", "hamlet" or "farmstead"		1913	District No. of residents :			
1	2	3	3	4	5	6	7	8
CZYSTE	16,000	Wola/outer/		26,401		XXII	17,622	18,184
		Koło		19,309	76,000	XIX	5,598	4,838
		Czyste		15,916		XXIII	19,596	15,439
		Ochota		12,015				
		MOKOTÓW	9,000	Mokotów		17,678		XVI
		Wierzbno		168				
		Henryków		690				
		Królikarnia		108	26,000			
		Nowy Sad		40				
		Sielce		6,399		XX	7,637	7,576
BRÓDNO	21,000	Goleździnów		1,225				
		Pelcowizna		no data		XVIII	4,794	5,018
		Ustron		no data				
		Nowe Bródno		no data	65,000	XXV	6,794	9,543
		Targówek		13,687		XXIV	8,368	9,231
		Utrata						
MŁOCINY	11,000	Powązki		4,082				
		Izabelin		382				
		Młociny B		1,895				
		Marymont		206				
		Buraków		512	24,000	XXVI	11,332	8,567
		Słodowiec		139				
		Kaskada		363				
		Grossów Farm		133				
		Ruda Farm		331				
Potok		1,565						
WAWER in the metropolitan area	rural	Grochów I		1,092		XVII	5,556	5,097
		Grochów II		2,109				
		Gocławska Kępa		25	c4,100	<del>XXIX</del>	<del>5,556</del>	<del>5,097</del>
		Saska Kępa		256				
		Gocław		501				
		Górki Grochowskie		73				
WILANÓW in the metropolitan area	rural	Siekierki I+II		952				
		Czerniaków		1,350	c3,900	XXI	2,450	4,141
		Szopy Polskie		658				
		Szopy Niemieckie		882				
PRUSZKÓW in the metropolitan area		Rakowiec, farm, village, colony		724		incorporated into "okręgi" XVI + XXIII		
		Wyględów		110				
SUBURBAN AREA	c58,000		134,974	190,800		XVI- XXVI	109,645	109,510

\* Taken from M. Nietyksza, "Ludność Warszawy na przełomie XIX i XX w.",  
AGAD, Zarząd Powiatowy Warszawski /1910/, S. Szymkiewicz "Wielka  
Inkorporacja"/in "Rocznik Warszawski, 1930, and "Rezultaty..."  
Part II in Vol. I : "Tablica" III.

Table VI :

## DEMOGRAPHIC CHANGES IN GREATER WARSAW BETWEEN 1913 AND 1949

Okrag 1	Population :			Post-1945 "Komisariat" 5	Population :	
	1913 2	1921 3	1938 4		1945 6	1949 7
I	c87,500	85,376	101,850	Stare Miasto /I, II/	7,318	14,991
II						
III						
IV	212,404	215,359	241,962	Powązki /III, IV, V/	2,668	5,011
V						
VI						
VII						
VIII	c262,723	253,839	229,599*	Grzybów /VI, VII, VIII, XII/	26,100	53,435
XII						
IX	c37,516	36,429	35,590	Ujazdów	6,622	14,201
X						
XIII	c112,373	104,623	88,130?	Solec /X, XIII/	25,884	52,751
XI	42,239	60,850	53,197	Koszyki	17,810	40,027
XIV	90,375	88,385	119,216	Praga /XIV, XV/	103,656	108,991
XV						
XVI	/c18,000/	24,820	55,095	Mokotów	29,848	64,904
XX	/c11,900/	15,476	35,321	Czerniaków	13,302	20,603
XXI						
XXIII	/c25,000/	18,035	51,828	Ochota	11,079	36,267
XXII	/c51,000/	26,747	84,424*	Wola	19,964	35,332
XIX						
XXVI	/c20,000/	10,735	59,854	Żoliborz	27,293	55,091
XVII	/c4,100/	6,032	42,365	Grochów	46,056	59,403
XXV	/c40,000/	17,005	46,528	Bródno /XVIII, XXV/	13,155	13,610
XVIII						
XXIV	/c20,000/	11,779	35,490	Targówek	27,171	30,288
I-XXVI	1,635,930/ -estimated-	975,490	1,280,449	GREATER WARSAW	377,926	604,907

\* Note : boundary changes between "Grzybów" and "Wola" new-commissariats in 1938 /ie from pre-1916 western city limits to the line of Okopowa-Towarowa streets/, thereby incrementing the population of the latter at the former's expense.

/cf. M. Nietyksza op.cit., Z. Limanowski /Kronika Warszawy 1931/, J. Cegielski, "Stosunki mieszkaniowe,..." and J. Górski, "Warszawa w latach 1944-1949. Odbudowa"/.

COMMISSION FOR THE APARTMENTS CENSUS IN THE CAPITAL CITY OF WARSAW

PROPERTY CENSUS FOR THE CAPITAL CITY OF WARSAW

PROPERTY QUESTIONNAIRE

"Arrondissement" \_\_\_\_ . Street \_\_\_\_ . House Number \_\_\_\_ .

Owner's Christian and sur- names \_\_\_\_\_ .

1. Buildings composing the property : frontal buildings/houses/\_\_\_\_; residential outbuildings\_\_\_\_; farming and horticultural\_\_\_\_; warehouses\_\_\_\_; other buildings\_\_\_\_.

2. Date of construction : main building\_\_\_\_; outbuildings\_\_\_\_.

3. Date of later extensions : main building\_\_\_\_; outbuildings\_\_\_\_.

4. Which buildings were pulled down or destroyed in 1914-1919 : \_\_\_\_\_ .

5a. Is the house\* connected to the water-supply system \_\_\_\_ .

5b. If not, from where is water drawn \_\_\_\_\_ .

6. Is the house connected to the sewerage system \_\_\_\_ .

7. Does the house possess a lift \_\_\_\_ .

8. Have gas and electric lighting been installed \_\_\_\_ /gas/; \_\_\_\_ /electricity/.

9. Has central-heating been installed \_\_\_\_ .

10. Dimensions of courtyard/s/ : length\_\_\_\_; width \_\_\_\_ .

11. Is the courtyard built-up on all side \_\_\_\_ .

12. Is the courtyard : unpaved\_\_\_\_; paved\_\_\_\_; tar-macadammed \_\_\_\_ .

13. Do trees grow in the courtyard \_\_\_\_ .

14. Is there a garden \_\_\_\_ .

15. Who has access to the garden \_\_\_\_\_ .

Signature of the house administrator or proprietor \_\_\_\_\_ .

/Additional comments may be entered on the end-page/.

\* Note the failure in the questionnaire to distinguish between "house" /dom/ and "property" /nieruchomosc' /.

COMMISSION FOR THE APARTMENTS CENSUS IN THE CAPITAL CITY OF WARSAW

APARTMENTS QUESTIONNAIRE

"Arrondissement" \_\_\_\_ . Street \_\_\_\_ . House Number \_\_\_\_ . Flat No. \_\_\_\_ .

1. Situation of apartment : in basement \_\_\_\_ ; in mezzanine \_\_\_\_ ; in attic \_\_\_\_ ; on intermediate floor \_\_\_\_ .
2. Street-fronting apartment \_\_\_\_ ; courtyard-facing apartment \_\_\_\_ .
3. Number of entrances to premises : \_\_\_\_ .
4. Number of separate rooms occupied by : WC \_\_\_\_ ; kitchen \_\_\_\_ ; larder \_\_\_\_ ; rooms \_\_\_\_ ; antechambers \_\_\_\_ ; chambers for servants \_\_\_\_ ; hallways \_\_\_\_ ; bathrooms \_\_\_\_ ; shops \_\_\_\_ .
5. Number of windows opening onto : a/. the street \_\_\_\_ ;  

ordinary	balcony

b/. garden or open space \_\_\_\_ ;  
c/. the courtyard \_\_\_\_ ;  
d/. staircase, passageway, skylight, other \_\_\_\_ .
- 6a. Is there water supply and sink in the apartment \_\_\_\_ .
- 6b. If no, is running water with a sink available on the same floor/level \_\_\_\_ .
7. Are the following available : a/. a connected bath-tub \_\_\_\_ ;  
b/. a connected wash-basin \_\_\_\_ ;  
c/. a connected WC \_\_\_\_ .
8. Where no WC exists in apartment, is one provided for communal use on the same floor/level \_\_\_\_ .
9. Where a kitchenstove is provided, what kind : "English" kitchen \_\_\_\_ ; gas \_\_\_\_ ; kitchen and gas \_\_\_\_ ; portable stove \_\_\_\_ .
10. Number of fireplaces outside of the kitchen \_\_\_\_ .
11. Is there central heating \_\_\_\_ .
12. For how long has the present tenant resided in apartment \_\_\_\_ .
13. Cost of annual rent : in 1914 \_\_\_\_ ; in 1919 \_\_\_\_ .
14. Does the tenant pay additional costs apart from the annual rent \_\_\_\_ .
15. In what kind of installments does the tenant pay the rent \_\_\_\_ .
16. If no rent is paid, is the tenant owner of the property \_\_\_\_ .
17. Occupation of tenant prior to World War I \_\_\_\_ .
18. Does the apartment serve exclusively residential functions \_\_\_\_ .
19. Does the apartment serve exclusively the following functions : public \_\_\_\_ ; retail/industrial \_\_\_\_ ; educational \_\_\_\_ ; other/stated/ \_\_\_\_ .
- 20a. Do the premises serve both residential and retail-industrial functions \_\_\_\_ .
- 20b. If yes, how many WCs are designated for : retail-industrial purposes \_\_\_\_ ; exclusively for residents \_\_\_\_ ; for servants, keeper, janitor \_\_\_\_ .
21. Precise designation of activities/functions carried out on the premises  
\_\_\_\_ .
22. Number of rooms rented by the main tenant \_\_\_\_ .
23. Number of persons up to the age of 12 living in the apartment \_\_\_\_ .  
/and/ " " " over the age of 12 " " " " \_\_\_\_ .

FEMALE	MALE

24. Number of above residents related to the main tenant \_\_\_\_ ; subtenants \_\_\_\_ ; servants \_\_\_\_ .
25. Number of beds with their own bed-clothes in the apartment \_\_\_\_ .
26. If apartment is not subletted or occupied, since when has it been empty \_\_\_\_ .
27. Reason for the apartment being vacant \_\_\_\_ .
28. If renovation of apartment is necessary, alterations needed and what kind :  
\_\_\_\_ .
29. Reasons for failure to carry out these alterations to date \_\_\_\_ .
30. Estimated costs of renovation and listed alterations \_\_\_\_ .

ANNEX TABLE VII

SUMMARY DATA AND CALCULATIONS IN REFERENCE TO STREET BLOCKS

(based on annex table IV of the 1919 property census and city council demographic statistics from 1913)

Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919 (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
1	21	437	117	1737	2010	-	20.8	4.0	95.7	1.2
2	3	27	6	147	122	-	9.0	5.4	40.6	0.8
3	6	91	28	382	433	-	15.2	4.2	72.2	1.1
4	9	92	19	328	362	-	10.2	3.9	40.2	1.1
5	21	357	122	1400	1531	-	17.0	4.0	72.9	1.0
6	21	306	80	1191	1324	-	14.6	4.0	63.0	1.1
7	11	220	56	888	1047	-	20.0	4.1	95.9	1.2
8	18	280	52	1124	1138	-	15.6	4.1	63.2	1.0
Ia	110	1810	480	7197	7967	c8488	16.5	4.0	72.4 (77.2)	1.1 (1.2)
9	31	679	92	1518	2257	-	21.7	2.3	82.5	1.6
10	27	650	46	1317	2488	-	24.1	2.0	92.5	1.8
11	20	463	65	872	1794	-	23.2	1.9	89.7	2.0
14	6	78	34	226	292	-	13.0	2.9	48.7	1.2
15	10	196	39	499	725	-	19.6	2.6	72.5	1.4
36	19	317	71	920	1232	-	17.2	3.0	64.8	1.3
41	5	109	25	221	383	-	21.8	2.0	76.6	1.7
Ib/IIb	118	2492	372	5573	9171	c9770	21.1	2.2	77.7 (82.8)	1.6 (1.8)
16	33	577	64	1060	2190	-	17.5	1.8	66.4	2.0
17	25	405	69	755	1578	-	16.2	1.9	63.1	2.0
18	33	338	33	669	1306	-	10.2	2.1	39.6	1.9
37	7	128	13	297	621	-	18.3	2.4	88.7	2.0
38	31	510	30	800	1805	-	16.5	1.6	58.2	2.2
39	8	149	15	297	614	-	18.6	2.1	76.8	2.0
40	30	480	59	803	1772	-	16.0	1.7	59.1	2.2
42	31	571	29	945	2307	-	18.4	1.7	74.4	2.4
43	13	225	16	335	846	-	17.3	1.6	65.1	2.5
44	11	262	10	465	640	-	23.8	1.8	94.5	2.2
45	7	163	0	191	653	-	23.3	1.4	93.3	3.4
46	13	281	0	351	1126	-	21.6	1.3	86.6	3.2
Ic/IIc	242	4089	338	6968	15858	d16895	16.9	1.8	65.5 (69.8)	2.3 (2.4)
12	5	75	5	181	306	-	15.0	2.4	61.6	1.7
13	6	74	4	125	282	-	12.3	1.6	47.0	2.2
20	1	12	0	25	47	-	12.0	2.2	47.0	1.8
21	3	127	2	343	525	-	42.3	2.7	175.0	1.5
22	3	61	4	121	270	-	20.3	2.0	90.0	2.2
23	3	51	1	145	222	-	17.0	2.9	74.0	1.5
24	3	77	8	141	257	-	25.7	2.3	85.7	1.8
25	10	317	31	651	1334	-	31.7	2.1	133.4	2.0
26	6	184	4	447	734	-	30.7	2.4	122.3	1.6
27	16	740	43	1413	3049	-	46.3	1.9	189.0	2.1

U r a c o w S u b u r b (C O R E)  
 - B o u l e v a r d -  
 M e d i a e v a l  
 (O l d T o w n)  
 - b r i d g e h e a d -  
 M a r i e n s t a t -

Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919 (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	Inhabitants per property	Inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
(cont.)										
Id	56	1714	106	3592	7028	c7488	31.0	2.3	125.9 (133.7)	1.8 (2.1)
49	14	301	19	561	1506	-	21.5	1.9	107.5	2.6
50	35	774	54	1409	3259	-	22.1	1.9	93.1	2.3
51	23	503	73	1264	2284	-	21.9	2.7	99.3	1.8
52	26	1161	107	2651	6068	-	44.7	2.4	223.3	2.7
53	15	271	31	551	1122	-	18.1	2.2	74.8	2.0
54	19	362	31	710	1377	-	19.1	2.0	72.5	1.9
55	16	356	6	676	1362	-	22.3	2.0	85.1	2.0
56	18	422	10	580	1545	-	23.4	1.5	85.8	2.6
59	20	572	41	1185	2889	-	28.6	2.3	114.5	2.4
60	10	302	31	682	1562	-	30.2	2.6	156.2	2.2
61	14	508	106	1427	3024	-	36.3	3.0	216.0	2.1
62	3	46	18	207	274	-	15.3	5.0	91.3	1.3
IIa	213	4578	527	10903	26272	c27990	24.0	2.5	123.3 (131.4)	2.4 (2.6)
296*	8	200	63	781	913	-	25.0	3.9	114.1	1.1
297*	11	63	39	223	290	-	5.7	3.6	26.4	1.3
298*	13	243	85	835	920	-	18.7	3.6	70.8	1.1
299	6	138	82	531	714	-	23.0	3.9	119.0	1.3
300	2	22	10	98	104	-	11.0	4.6	52.0	1.0
301	11	171	83	751	870	-	15.6	4.5	79.0	1.1
302	11	232	129	891	1321	-	17.9	4.0	102.0	1.4
303	1	1	122	0	0	-	-	-	-	-
304	1	34	35	109	209	-	34.0	3.3	209.0	1.9
305	1	38	32	140	200	-	38.0	3.7	200.0	1.4
306	10	345	121	1204	1995	-	34.5	3.5	195.5	1.6
307	32	732	179	2365	3590	-	22.9	3.3	112.2	1.5
308	19	282	62	1040	1378	-	14.8	3.9	72.5	1.3
309	27	348	201	1380	1655	-	12.9	4.0	61.3	1.1
310	16	164	82	506	691	-	10.3	3.6	43.2	1.3
311	3	48	1	118	447	-	16.0	2.4	149.0	3.7
312*	2	8	93	25	26	-	4.0	3.1	13.0	1.0
313	18	228	90	772	1097	-	12.7	3.2	60.9	1.5
314*	28	502	147	1455	1872	-	17.9	3.1	67.0	1.0
315*	11	55	21	184	207	-	5.0	3.8	18.8	1.1
316	18	548	99	2059	2296	-	30.4	3.9	127.6	1.1
317	24	163	59	508	613	-	6.8	3.1	25.5	1.1
318	13	278	66	931	997	-	21.4	3.3	76.7	1.0
319	6	70	56	225	276	-	21.7	3.2	46.0	1.2
320	16	242	120	898	1113	-	15.1	3.2	69.6	1.2
321	1	2	15	0	0	-	-	-	-	-
322	1	10	12	36	53	-	10.0	3.6	53.0	1.4
XII	312	5167	2103	18015	23847	c25407	16.6	3.6	76.4 (81.4)	1.3 (1.4)

No. of  
 rooms  
 per  
 apartment  
 (cont.)



Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919 (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
224	26	597	81	1829	2169	-	23.0	3.4	83.4	1.1
225	24	487	128	1633	2009	-	20.3	3.4	83.7	1.2
226	16	234	81	1258	1417	-	14.6	3.8	88.6	1.1
227	7	107	28	409	507	-	15.3	3.9	72.4	1.2
228	3	17	11	82	210	-	5.7	4.8	70.0	2.5
229	3	65	12	321	230	-	21.7	5.0	76.7	0.7
230	6	111	50	523	570	-	18.5	4.7	95.0	1.0
231	5	117	23	462	475	-	23.4	4.6	95.0	1.0
232	6	110	11	506	483	-	18.3	4.8	80.5	0.9
233	5	77	31	471	445	-	15.4	6.2	89.0	0.9
234	6	113	18	469	593	-	18.3	4.3	98.9	1.2
235	4	82	17	403	376	-	20.5	5.0	94.0	0.9
236	18	329	91	1228	1371	-	18.3	3.7	76.2	1.2
237	42	823	136	3390	3748	-	19.6	4.1	89.2	0.9
238	19	395	108	1276	1813	-	20.8	3.3	95.2	1.1
239	20	372	110	1090	1521	-	18.6	2.9	76.0	1.1
240	4	122	15	421	523	-	30.5	3.5	130.8	1.4
241	27	551	54	1305	2175	-	20.4	2.4	80.6	1.3
253	71	1847	139	5047	7836	-	26.0	2.8	110.4	1.5
254	1	10	0	25	41	-	10.0	2.5	41.0	1.6
255	13	324	17	1284	1385	-	25.1	4.0	106.0	1.0
256	26	534	93	1644	2183	-	20.5	3.1	84.9	1.3
257	12	225	4	732	763	-	18.8	3.2	63.6	1.0
X	364	7649	1258	25808	32843	393167	21.0	4.0	90.2	1.1
									108.9	1.57
71	18	444	12	518	1703	-	24.7	1.2	94.6	3.2
72	26	777	25	960	2895	-	29.9	1.4	111.3	3.0
73*	19	528	44	815	2113	-	27.8	1.6	111.2	2.5
74	14	172	27	425	789	-	12.3	2.6	56.4	1.8
75	28	882	61	1435	3703	-	31.5	1.8	132.3	2.5
76	40	1483	75	2256	6118	-	37.1	1.6	152.9	2.7
77	45	1477	62	2239	6256	-	32.8	1.6	139.0	2.7
78	19	548	41	1196	2884	-	28.9	2.4	151.8	2.4
79	40	1231	113	3312	6423	-	30.8	2.9	160.6	1.9
80	47	1870	208	4960	10044	-	39.8	2.5	213.7	2.0
81	55	2016	230	5093	9927	-	36.7	2.7	180.5	1.9
82	29	636	158	2221	3303	-	21.9	3.6	113.9	1.4
83	10	239	18	716	1213	-	23.9	3.2	121.3	1.6
84	22	536	95	1573	2841	-	24.4	3.1	129.1	1.8
85	17	562	98	1946	3140	-	33.1	3.6	184.7	1.6
86	22	613	87	1852	3424	-	27.9	3.2	155.6	1.8
III	451	14014	1354	31537	66776	673347	31.1	2.5	148.1	2.1
									(162.6)	(2.3)

(CORE) NOWY SWIAT

1000

Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919 (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
88	23	557	226	1049	2647	-	24.2	2.1	115.1	2.5
89	18	837	149	2165	4617	-	46.5	2.7	256.5	2.1
90	15	533	98	1348	2821	-	35.5	2.6	188.1	2.0
91	52	2043	603	5891	11747	-	39.3	3.1	225.9	1.9
92	26	1131	701	3277	6262	-	43.5	3.1	240.8	1.9
93	14	272	338	797	1438	-	19.4	3.0	102.7	1.8
94	21	1261	424	3384	6913	-	60.1	3.1	329.2	2.0
95	32	1250	493	3522	7032	-	39.1	3.1	219.8	1.9
96	4	114	10	353	619	-	28.5	3.2	154.8	1.7
97	12	408	53	1017	2201	-	34.0	2.8	183.4	2.0
98	12	348	79	967	2205	-	29.0	2.9	168.8	2.0
IV -1919-	229	8754	3174	23824	48322	51115	38.2	2.9	211.0 (223.2)	2.0 (2.1)
105	18	525	25	837	2254	-	29.2	1.7	125.2	2.6
106	6	225	6	327	973	-	37.5	1.5	171.7	2.9
(99)*	2	14	0	32	32	-	7.0	2.2	16.0	1.0
IV -1913-	255	9518	3205	25020	51581	54745	37.3	2.6	214.7	2.2
107	12	142	15	362	734	-	11.8	2.6	61.2	2.0
108	35	1373	49	1928	5776	-	39.2	1.7	165.0	2.9
109	12	419	7	682	1168	-	34.9	2.0	139.0	2.4
110*	28	909	54	1058	3262	-	32.5	1.4	116.5	3.0
111	27	1104	101	2414	6223	-	40.9	2.4	230.5	2.5
112*	16	435	28	626	1834	-	27.2	1.6	114.6	2.9
113	11	235	6	325	941	-	21.3	1.6	85.5	2.8
114	4	54	3	140	256	-	13.5	2.6	18.3	1.8
115	19	486	18	505	1710	-	25.6	1.5	90.0	3.3
116	29	1106	128	2196	5877	-	39.6	2.2	202.7	2.6
117	16	779	71	1159	3297	-	48.7	1.9	206.0	2.8
118*	7	121	7	221	764	-	31.6	1.4	109.1	3.4
119	10	275	11	329	1101	-	27.5	1.5	110.1	3.3
120	46	1967	157	2478	7993	-	42.8	1.5	173.8	3.2
121	24	934	82	1819	4676	-	39.0	2.2	194.8	2.5
122	39	1422	142	3938	8061	-	39.0	2.8	206.7	2.0
V	335	11761	879	20180	54173	65912	35.1	1.9	161.7 (196.8)	2.6 (3.3)
163	32	1545	173	3296	7251	-	48.3	2.4	260.0	2.5
164	10	528	41	891	2341	-	52.8	2.1	257.4	2.8
165	12	237	66	701	926	-	18.8	3.1	95.0	1.6
166	11	309	41	765	1123	-	28.1	2.6	120.8	1.7
VIIA	65	2619	321	5653	13363	14237	40.3	2.6	205.6 (219.0)	2.4 (2.5)

N a l e w k i (1913)

O k o p o w a

Mirow-CBD  
assimilation

Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919 (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
159	18	1091	32	1466	4249	-	60.1	1.5	236.1	2.8
160	24	780	48	1612	3443	-	32.5	2.1	143.5	2.1
161	12	339	23	817	1606	-	28.3	2.6	133.8	1.9
162	11	369	12	781	1948	-	33.6	2.2	177.1	2.4
167*	4	71	22	237	309	-	17.8	3.5	73.3	1.3
168	19	479	30	1094	2317	-	25.2	2.5	121.9	2.1
169	9	239	14	578	1153	-	26.6	2.5	128.1	1.9
170	20	479	65	1207	2097	-	24.0	2.6	104.9	1.7
171	8	133	23	321	601	-	16.6	2.6	75.1	1.8
172	19	791	72	1527	3336	-	41.6	2.1	175.7	2.1
173	29	982	85	2359	4137	-	33.9	2.5	142.7	1.7
174	30	900	100	2722	4218	-	30.0	3.2	140.6	1.5
175	29	585	48	1854	2725	-	30.8	3.2	143.4	1.4
176	39	1364	120	3640	6368	-	35.0	2.7	163.3	1.7
177	21	676	64	1360	2800	-	32.2	2.1	133.3	2.0
178	7	371	37	630	1504	-	53.0	1.7	214.9	2.3
VIIb	289	9649	785	22205	43177	53725	33.4	2.5	149.4 (185.9)	1.9 (2.4)
179	39	1388	350	4099	8314	-	35.6	3.1	213.2	2.0
180	12	186	103	755	994	-	15.5	4.2	82.8	1.3
181	8	118	47	530	529	-	14.8	4.5	66.1	0.9
182	12	257	113	775	1282	-	21.4	3.1	106.8	1.6
183	14	229	206	731	1227	-	16.4	3.3	87.6	1.6
184	25	1054	212	3039	6257	-	42.2	3.0	250.3	2.0
185	23	919	103	2457	4922	-	40.0	2.7	214.0	2.0
186	25	1032	67	2380	5577	-	41.3	2.4	223.1	2.3
187	13	415	36	1092	2052	-	31.9	2.7	157.8	1.8
188	36	1077	108	2708	5891	-	29.9	2.5	163.6	2.6
189	13	508	38	1410	2010	-	39.1	2.9	154.6	1.4
190	11	172	52	621	864	-	15.7	3.6	78.5	1.3
191	10	168	61	765	855	-	16.8	4.6	85.5	1.1
192	8	105	48	503	486	-	13.1	5.1	60.8	0.9
193	4	117	34	510	654	-	29.3	4.4	163.5	1.2
194	30	1061	82	3368	4853	-	35.4	3.2	161.8	1.4
195	31	1058	56	3140	4884	-	34.1	3.0	157.5	1.5
196	48	1653	86	3689	6917	-	34.4	2.3	144.1	1.8
197	30	1014	91	2896	4023	-	33.8	2.9	134.1	1.3
198	6	130	27	467	602	-	21.7	3.6	100.3	1.2
199	7	128	56	511	589	-	18.3	4.1	84.1	1.1
200	23	426	58	1244	1085	-	17.7	3.2	78.1	1.4
VIII (1919)	428	13195	2034	37690	65587	-	30.2	2.9	153.2	1.7
VIII (1913)	428	13195	2034	37690	-	70124	30.2	2.9	163.8	1.86

Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919 (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
128	11	121	14	257	599	-	11.0	2.1	54.5	2.3
129	12	416	18	720	1780	-	34.7	1.8	148.3	2.4
130	15	570	39	1273	2635	-	38.0	2.2	175.6	2.0
131	6	217	20	538	946	-	36.2	2.5	153.7	2.0
132	23	683	50	1487	3152	-	29.7	2.2	137.0	1.7
133	22	670	51	1423	2808	-	30.5	2.1	127.6	1.9
134*	2	54	5	126	236	-	27.0	2.3	118.0	1.8
135	9	309	11	546	1328	-	34.3	1.9	147.6	2.4
136	17	942	44	1730	4337	-	55.4	1.9	255.1	2.5
137	21	1021	66	2277	4919	-	48.6	2.4	234.2	2.1
138	15	445	48	1040	2325	-	29.7	2.5	155.0	2.2
139	11	403	24	1004	1925	-	36.7	2.6	175.0	1.9
140	18	787	37	1413	3711	-	43.7	1.8	206.7	2.6
141	5	233	10	404	977	-	46.6	1.7	108.6	2.4
142	21	589	31	765	2416	-	28.1	1.3	115.0	3.1
143	22	774	39	932	2994	-	35.2	1.3	136.0	3.2
144	11	514	14	1196	2482	-	46.7	2.3	225.6	2.0
145	19	646	50	2072	3547	-	34.0	3.3	186.7	1.7
146	13	311	41	824	1643	-	23.9	3.0	126.4	1.9
147	5	23	21	65	106	-	4.6	3.0	17.6	1.6
148	27	1057	38	1681	4572	-	42.9	1.7	163.3	2.7
149	20	747	38	1038	2995	-	37.4	1.4	149.8	2.8
VI	325	11532	709	22814	52433	582907	35.5	2.0	138.8	2.3
									179.4?	2.6?
258	23	408	33	1599	2037	-	17.7	4.0	88.6	1.2
259	27	877	31	2521	3543	-	32.5	3.2	131.2	1.4
260	27	704	72	2363	3088	-	26.1	3.4	114.4	1.3
261	21	512	51	1870	2464	-	24.5	3.7	117.3	1.3
262	25	805	48	2794	3606	-	32.2	3.6	144.2	1.3
263	7	183	10	615	905	-	26.1	3.3	129.3	1.4
264	18	399	54	1605	2258	-	22.2	2.7	125.4	1.4
265	20	509	75	1387	2122	-	25.5	2.8	106.1	1.5
266	25	613	14	2026	2508	-	24.5	3.5	100.3	1.2
267	28	682	65	1910	3033	-	24.4	2.8	108.3	1.5
268	17	636	87	2319	2912	-	37.4	3.7	171.3	1.2
269	15	410	37	1400	1690	-	27.3	3.6	112.7	1.2
270	26	720	35	2363	3148	-	27.7	3.3	121.1	1.3
271	15	428	8	1307	1671	-	28.5	3.1	111.4	1.2
272	11	375	41	986	1300	-	25.0	3.6	118.2	1.3
273	11	340	31	1197	1485	-	30.9	3.5	135.0	1.1
274	11	273	52	1103	1154	-	24.8	4.2	104.9	1.0
275	13	313	22	1290	1495	-	24.1	4.1	115.0	1.1
276	5	98	4	334	393	-	19.6	3.5	78.6	1.1
277	11	186	12	506	709	-	16.9	2.7	64.9	1.4
278	8	300	10	729	1174	-	37.5	2.4	146.8	1.6
279	12	296	12	674	1142	-	24.7	2.3	95.2	1.6
280	5	83	2	237	341	-	16.6	2.9	68.2	1.4
289	14	179	8	325	750	-	12.8	1.8	71.0	2.3
292	14	220	14	797	994	-	16.4	3.7	53.6	1.2
XI	409	10549	919	34347	45992	510517	25.8	3.3	112.3	1.3
									124.8?	1.5?

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Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919 (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
323	24	584	103	2102	2386	-	24.3	3.7	99.4	1.1
324	24	717	56	2581	3042	-	29.9	3.6	126.8	1.1
325	23	698	69	2301	2838	-	30.3	3.3	123.4	1.2
326	23	630	63	2011	2496	-	27.4	3.2	108.5	1.2
327	7	104	18	467	482	-	14.9	4.7	68.9	1.0
328	26	853	52	2890	3701	-	32.8	3.4	142.3	1.2
329	23	898	69	3059	3938	-	39.0	3.4	171.2	1.2
330	20	593	31	1968	2733	-	29.7	3.4	136.7	1.3
331	28	940	112	2819	4310	-	33.6	3.0	153.9	1.3
332	22	515	91	1693	2281	-	23.4	3.3	103.7	1.3
333	23	716	87	2209	2857	-	31.6	3.1	124.2	1.2
334	18	498	39	1805	2150	-	27.7	3.7	119.4	1.1
335	14	326	53	1302	1457	-	23.3	4.0	104.1	1.1
336	12	196	32	770	891	-	16.3	4.0	74.3	1.1
337	7	82	15	332	407	-	11.7	4.0	58.1	1.2
338	14	178	4	632	851	-	12.7	3.6	60.8	1.3
339	8	103	4	403	445	-	12.9	4.3	55.6	1.1
340	24	465	20	1980	2081	-	19.4	4.4	86.7	1.0
341	22	395	23	1170	1620	-	18.0	3.0	73.6	1.3
351	10	226	4	709	1532	-	26.6	3.1	70.9	2.1
XIII	377	9717	945	33193	42498 (50738)		25.8	3.4	112.7	1.3
212	15	345	8	1329	1540	-	23.0	3.9	102.7	1.1
213	22	520	29	2026	2341	-	23.6	3.9	106.4	1.1
214	22	546	80	1669	2034	-	24.8	3.2	92.5	1.2
215	20	232	17	922	1043	-	11.6	4.1	52.6	1.1
216	17	523	24	1654	2027	-	30.8	3.2	119.2	1.2
217	12	420	6	1525	1869	-	35.0	3.7	155.8	1.2
218	5	26	3	101	133	-	5.2	3.8	26.6	1.3
219	12	285	10	1061	1193	-	23.6	3.9	99.4	1.1
220	9	261	5	422	940	-	29.0	1.7	104.4	2.2
221	20	522	30	1318	2181	-	26.1	2.5	109.1	1.6
222	10	134	7	544	659	-	13.4	4.1	65.9	1.2
223	14	249	12	926	1041	-	17.8	3.8	74.4	1.1
IX	178	4063	231	13497	17001 (20298)		22.8	3.3	95.5	1.3
XIII / IX	555	13780	1176	46690	59499 71036?		24.8	3.4	107.2 128.0?	1.3 1.5?

South (East) (West) (North) (South) (East) (West) (North)

(continuation)

## SUMMARY DATA AND CALCULATIONS IN INNER-PERIPHERAL STREET BLOCKS

Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919 (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
19	3	77	3	248	386	-	25.9	3.2	128.6	1.5
47*	11	162	5	142	555	-	14.7	1.2	50.4	3.6
48*	8	248	8	319	841	-	31.0	1.9	105.1	2.6
(57)	3	86	3	148	362	-	28.7	1.8	120.7	2.4
Powisłe in I/II	25	573	19	857	2144	(2284)	22.9	1.5	85.8 (91.4)	2.5 (2.7)
28	2	45	3	71	196	-	22.5	1.6	93.1	2.7
29	7	63	1	102	239	-	9.0	1.6	34.0	2.3
30	14	532	13	767	2057	-	38.0	1.5	146.9	2.6
31	4	170	4	240	573	-	42.5	1.8	143.0	2.3
32	7	348	1	460	1109	-	49.7	1.5	158.4	2.4
33	10	456	20	890	1934	-	45.6	2.0	193.4	2.1
34	12	337	15	688	1343	-	28.1	2.1	111.9	1.9
35	6	149	5	199	573	-	24.8	1.4	95.5	2.8
Powisłe in I	62	2100	62	3417	8024	(8549)	33.9	1.8	129.4 (137.9)	2.2 (2.5)
242	13	283	13	561	1096	-	21.8	2.1	84.3	1.9
243	12	206	1	328	746	-	17.2	1.7	62.2	2.2
244	14	299	12	677	1187	-	21.4	2.0	84.8	1.7
245	1	3	-	7	5	-	3.0	3.5	5.0	0.7
246	1	21	-	46	84	-	21.0	2.5	84.0	1.8
247	7	170	-	290	663	-	24.3	1.8	91.7	2.2
248	2	8	-	11	44	-	4.0	1.3	22.0	4.0
249	11	95	4	146	428	-	8.6	1.6	38.9	2.8
250	17	456	21	813	1867	-	26.8	1.8	109.8	2.2
251	5	106	1	125	391	-	21.2	1.2	78.2	3.1
252	8	290	9	576	1106	-	36.3	2.0	138.3	2.0
Powisłe in X	91	1927	71	3580	7617	(9118)	21.2	2.0	83.7 (100.2)	2.2 (2.5)
342	12	398	12	575	1511	-	33.2	1.4	125.9	2.6
343	26	400	9	598	1612	-	15.4	1.6	62.0	2.6
344	13	353	13	535	1502	-	26.4	1.5	115.5	2.8
345	9	323	7	507	1251	-	35.9	1.5	139.0	2.4
346	11	96	8	177	409	-	8.7	1.9	37.9	2.8
347	4	17	3	35	53	-	4.3	2.0	13.3	1.5
348	5	193	6	359	856	-	38.6	1.8	171.2	2.3
349	4	29	4	69	119	-	7.2	2.3	29.8	1.7
350	12	338	17	559	1333	-	28.2	1.7	111.0	2.3
Powisłe in XIII	96	2147	79	3414	8646	(10321)	22.4	2.0	90.1 (107.5)	2.5 (3.0)

Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919. (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
201	8	109	10	243	405	-	13.6	2.2	50.6	1.6
202*	11	104	37	224	325	-	9.5	2.1	29.5	1.4
203*	7	80	2	120	350	-	11.4	2.0	50.0	2.9
204	3	57	1	133	235	-	19.0	2.3	78.3	1.7
205	6	28	2	73	141	-	4.7	2.4	23.5	1.9
206	10	364	12	483	1544	-	36.4	1.3	154.4	3.1
207	23	897	14	1214	3434	-	43.4	1.4	149.3	2.8
208	16	636	18	785	2197	-	39.8	1.4	137.3	2.7
209	29	969	36	1314	3563	-	33.4	1.4	122.9	2.7
210	1	4	-	6	15	-	4.0	2.0	15.0	2.5
211*	4	16	4	32	65	-	4.0	2.0	16.3	2.0
Powisłe in IX	118	3264	136	4627	12274	(14652)	27.7	2.0	104.0	2.7
									(124.2)	(3.2)
POWISŁE TOTAL.	392	10011	367	15895	38705	(44924)	25.5	1.6	98.7	2.4
									(114.6)	(2.8)
100	14	540	4	754	2161	-	37.9	1.4	154.0	2.7
101*	2	56	-	107	222	-	27.0	1.9	111.0	1.1
102	7	153	4	292	597	-	22.4	1.9	85.3	2.0
103	19	258	8	382	967	-	14.0	1.7	50.1	2.5
104	12	291	4	424	1390	-	24.3	1.6	115.8	3.2
Wola in V	54	1298	20	1959	5337	(6494)	24.0	1.6	98.8	2.7
									(120.3)	(3.3)
63*	3	14	-	9	40	-	4.7	1.2	13.3	4.4
64*	11	239	4	203	603	-	21.7	1.2	54.8	2.9
65	38	413	5	563	1484	-	10.9	1.5	39.0	2.6
66*	14	178	9	309	710	-	12.7	1.9	50.7	2.2
67*	6	64	2	121	522	-	11.3	1.9	87.0	4.3
68	27	579	29	646	1740	-	17.7	1.5	64.4	2.6
69*	8	360	14	614	1533	-	45.0	1.7	191.6	2.4
70*	8	91	1	172	338	-	11.3	2.0	42.3	1.9
Wola in III	115	1838	64	2637	6970	(7656)	16.0	1.6	60.6	2.6
									(66.6)	(2.9)
150*	5	196	3	297	761	-	39.2	1.5	152.2	2.5
151*	14	587	27	999	2160	-	41.9	1.7	164.4	2.3
152	32	588	12	886	2215	-	18.4	1.5	76.1	2.7
153	25	1044	34	1570	4423	-	41.8	1.5	176.9	2.8
154	16	816	49	1134	3833	-	51.0	1.4	239.6	3.4
155	16	426	33	859	1834	-	26.6	2.0	114.6	2.1
156	15	445	44	850	1820	-	29.7	2.1	121.3	2.1
157	16	475	21	760	2033	-	29.7	1.7	127.1	2.6
158	8	206	9	307	913	-	25.8	1.5	114.1	2.9
Wola in VII	147	4783	232	7662	19992	(24876)	32.5	1.9	136.0	2.6
									(169.2)	(3.2)

Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919 (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
123	9	111	3	167	471	-	12.3	1.5	52.3	2.8
124	6	153	5	206	549	-	25.5	1.3	91.5	2.6
125*	14	180	4	191	594	-	12.9	1.2	42.4	3.1
126*	12	224	6	302	779	-	18.7	1.4	64.9	2.5
127	63	1355	13	1486	4704	-	21.5	1.2	74.7	3.1
Wola in VI	104	2123	31	2352	7097	(7890)	20.4	1.3	68.2 (75.9)	2.8 (3.5)
WOLA TOTAL	420	10042	347	14612	39396	(46916)	23.9	1.5	93.8 (111.7)	2.7 (3.2)
285	14	629	19	1028	2636	-	44.9	1.6	188.3	2.5
286	9	151	5	192	601	-	16.8	1.3	66.8	3.1
287	15	423	26	615	1770	-	29.9	1.4	118.0	2.8
288	11	425	30	651	1723	-	41.4	1.5	156.0	2.6
Enclave in XI	49	1628	80	2486	6730	(7482)	33.2	1.5	137.3 (152.7)	2.7 (3.0)
281	2	48	-	126	174	-	(24.0)	2.6	87.0	1.3
282*	4	30	3	60	124	-	(8.3)	2.3	31.0	2.0
283	3	122	6	255	719	-	(40.7)	2.0	239.7	2.8
284	2	17	1	44	80	-	(8.5)	2.5	40.0	1.8
290*	1	23	1	43	122	-	(23.0)	1.9	122.0	2.8
291*	1	1	-	1	3	-	(1.0)	1.0	3.0	3.0
293*	1	103	1	181	346	-	(103.0)	1.7	346.0	1.9
294*	1	2	-	5	10	-	(2.0)	2.5	10.0	2.0
295*	1	-	1	-	-	-	(1.0)	-	-	-
Green Belt - in XI	16	349	14	715	1549	(1722)	(21.6)	2.1	96.8 (107.6)	2.2 (2.4)
58	1	-	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-	-	-
57	: cf. Powiśle in arrondissement II (Rybaki)									
99	: cf. arrondissement IV (Walewki)									
Citadel	-----no information available in, or prior to, 1919-----									
396*	-? no information available									
397*	-? " " " " " " " " " " " "									
398	2	52	1	101	253	-	(26.1)	1.9	126.5	2.5
399*	1? np information available									
400*	-? " " " " " " " " " " " "									
418	- - - - - - - - - - - -									
435	9	149	1	260	552	-	16.6	1.9	61.3	2.1
Praga : Green area	12	201	2	361	805	-	-	-	-	-



Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919. (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
352	11	75	6	200	310	-	6.8	2.7	28.2	1.5
353*	2	3	-	8	6	-	1.5	2.6	3.0	0.7
354	5	101	4	157	361	-	20.2	2.0	72.2	2.2
355	3	32	1	67	110	-	10.7	2.1	36.7	1.6
356**	-?	no information available								
357*	5	116	3	207	439	-	23.2	2.0	87.7	2.1
358	8	174	7	357	829	-	21.8	2.2	103.6	2.3
359	3	9	3	13	42	-	3.0	1.4	14.0	3.2
360	7	196	14	429	744	-	28.0	2.3	106.3	1.7
361	14	378	39	1039	1984	-	27.0	2.8	141.7	1.9
362*	3	109	26	277	577	-	36.3	2.5	192.3	2.0
363*	14	401	57	749	1858	-	28.6	2.3	132.7	2.4
408	18	389	23	816	1963	-	21.6	2.2	109.1	2.4
409	31	1370	194	2841	7148	-	44.2	2.2	230.6	2.5
410	19	522	93	1237	2854	-	28.0	2.5	150.2	2.3
411	17	491	38	1118	2283	-	28.9	2.3	134.3	2.0
412*	18	13	-	33	55	-	?	2.5	3.1	1.6
413*	10	218	9	374	896	-	21.8	2.1	89.6	2.3
414*	2	20	1	54	62	-	10.0	3.0	31.0	1.1
415	1	7	-	28	31	-	7.0	4.0	31.0	1.1
416	5	7	-	29	27	-	1.4	4.1	5.4	0.9
417*	6	162	3	244	567	-	27.0	1.6	94.5	2.3
419*	9	69	-	123	224	-	7.7	2.0	24.9	1.8
420*	-?	no information available								
421	11	358	12	600	1377	-	32.5	1.8	125.2	2.2
422	5	47	2	92	186	-	9.4	2.0	37.2	2.0
423	24	322	7	590	1343	-	13.4	2.1	55.0	2.2
424	11	253	7	382	893	-	23.0	1.8	81.2	2.3
*Old*Praga in XIV+XV	22	5842	549	12064	27169	(31910)	22.3	2.1	103.7 (121.8)	2.3 (2.7)
374*	11	298	30	653	1338	-	27.1	2.7	121.6	2.0
375	1	3	-	6	12	-	3.0	2.0	12.0	2.0
376	13	213	6	388	790	-	16.4	1.9	60.8	2.0
377	17	248	6	376	844	-	14.6	1.7	49.6	2.2
378	1	10	-	14	26	-	10.0	1.7	26.0	1.8
379	10	115	1	121	309	-	11.5	1.5	30.9	2.5
380	6	93	-	103	281	-	15.5	1.5	46.8	2.7
381	7	62	-	79	187	-	8.9	1.3	26.7	2.3
382	20	402	7	522	1301	-	20.1	1.7	65.1	2.4
383	19	581	15	827	1973	-	30.6	1.6	103.8	2.3
384	3	26	1	39	95	-	9.0	1.4	31.7	2.4
385	14	357	9	565	1323	-	25.5	1.6	94.5	2.3
386	12	157	8	354	605	-	13.8	2.3	50.4	1.7
387	14	292	14	539	1005	-	20.8	2.1	71.8	1.8
388	33	889	99	1564	3421	-	26.9	1.9	103.7	2.1
389	21	463	34	869	1925	-	22.0	1.9	91.7	2.2
390	9	303	7	526	1142	-	33.7	1.8	126.9	2.1

Street block	Total number of :				Population		Mean number of :			
	developed properties	habitable apartments	unhabitable premises	habitable rooms	1919 (census)	1913 (estimate)	habitable apartments per property	rooms per apartment	inhabitants per property	inhabitants per room
1	2	3	4	5	6	7	8	9	10	11
(cont.)										
391	9	102	9	280	409	-	11.3	2.8	45.4	1.4
392	11	362	23	757	1513	-	32.9	2.2	137.5	1.9
393	10	281	23	358	1118	-	28.1	2.1	111.8	1.9
394	17	437	7	980	1781	-	25.7	2.3	104.8	1.8
395*	20	650	47	1500	2287	-	32.5	2.4	144.3	1.2
*New*Praga in XIV 2	8	6344	346	11420	24285	(28523)	22.8	1.8	87.4 (102.6)	2.1 (2.5)
364*	4	100	6	208	420	-	25.0	2.0	105.0	2.0
365*	10	399	6	611	1534	-	39.9	1.6	153.4	2.5
366	2	102	3	113	341	-	51.0	1.2	170.5	3.0
367*	15	235	5	321	814	-	15.7	1.5	54.3	2.5
368	18	331	87	455	1238	-	18.4	1.6	68.8	2.7
369	11	139	1	170	509	-	12.7	1.4	46.3	2.9
370	6	126	-	150	460	-	25.0	1.3	76.7	3.0
371	23	427	2	555	1518	-	18.6	1.4	66.0	2.7
372	3	61	7	114	352	-	20.3	1.8	117.3	3.0
373	28	260	2	249	692	-	9.3	1.0	24.7	2.7
401	10	260	8	417	1086	-	26.0	1.6	108.6	2.6
402	6	95	-	124	333	-	15.8	1.4	55.5	2.6
403	17	229	9	344	863	-	13.5	1.9	50.8	2.5
404	57	875	12	974	2864	-	15.4	1.4	50.2	2.9
405	13	175	-	251	613	-	13.5	1.7	47.2	2.4
406	46	803	5	926	2770	-	17.5	1.3	60.2	2.9
407	23	527	8	799	2092	-	22.9	1.7	91.0	2.6
*New*Praga in XIV+XV	6	5144	161	6881	18499	(21727)	17.6	1.4	63.4 (74.4)	2.7 (3.2)
425	11	202	4	230	551	-	18.4	1.2	50.1	1.8
426	3	40	3	90	168	-	13.3	2.3	56.0	2.3
427	14	145	1	165	388	-	10.4	1.1	27.7	2.5
428	19	228	2	255	651	-	12.0	1.1	34.3	1.9
429	3	41	5	66	127	-	13.7	1.6	42.3	2.4
430	6	66	1	94	228	-	11.0	1.4	38.0	2.4
431	17	200	-	217	530	-	11.8	1.1	31.2	2.4
432	7	95	2	98	272	-	13.6	1.0	38.9	2.7
433	9	54	4	117	175	-	6.0	2.1	19.4	1.4
434	14	195	7	301	756	-	13.9	1.5	54.0	2.5
*New*Praga in V	3	1266	29	1633	3846	(4517)	12.3	1.3	37.3 (43.9)	2.4 (2.8)
PRAGA TOTAL	947	18817	1087	32459	74606	(90375)	19.9	1.7	78.8 (95.4)	2.3 (2.8)

## ANNEX (PART II)

II<sup>a</sup>

## THE REGULATION OF PRE-EXISTING AND LAYING-OUT OF NEW STREETS

/c.1765-1915/

## A. CBD/TENEMENT BELT

Street name /new names in brackets/	Location /"cyrkule" I-XIII /	Summary history	Post-1945
Agrykola -Upper	IX	1778-'9; site of a stream	C
Aleksandryja	X	Aleksandryja "jurysdyka" /1670/ cf. Kopernika St.	
Bagatela	IX	line of Customs Wall /1770/	B
Bagno	VIII	ex-mediaeval highroad/reg.1760s/	Z <sub>2</sub>
Bednarska	I	access road to Powiśle+ bridge	A
Belwederska	IX	Royal Route extension/Sielce/	B
Ct. Berg /Traugutt/	I	laid-out in 1865	B
Biała	VII	c.1731-'70/access road	X
Białoskórnicza	I	Mariensztat "jurysdyka" /1762/	X
Bielańska	XII	ex-mediaeval highroad/reg. C17/	X
Błońska	V	extension of Dzika c.1890	Z <sub>1</sub>
Baudouina	X	laid-out in 1898	B
Bonifraterska	II+IV	access road to C18 church	O, X
Bracka	X+XIII	Bożydar "jursydyka" /highway	A
Browarna	I	foot of escarpment /Powiśle/	X
Ceglana /Pereca/	VII	1770 regulation	B
Chłodna	VII	extension of Elektoralna	B
Chmielna	X, VIII, VI	ex-field road, east-west	A, Z <sub>1</sub> , B
Ciasna	II	cul-de-sac, 1890s	B
Cicha	X	cul-de-sac pre-1890s	B
Ciepła	VIII+VI	backroad in Grzybów /1650/	B, X
Czarna	II	1890s link-road	X
Czysta/Ossolińskich/	XII	ex-mediaeval subs.sideroad	B
Daniłowiczowska	XII	palace access road /C17/	X
Długa	II+XII	mediaeval trade + exit route	B
Dziekanka	III	late-mediaeval "jurysdyka"	O
Dzielna	III	ex-field road, regul.1760s	X
Dzika	III, IV, V	ex-mediaeval highway	X, Z <sub>1</sub>
Elektoralna	VII	C17 W.arterial highway	B
Erywańska/Kredytowa/	I	laid-out in 1851	A
Esplanada	IV	Citadel/private land demarcat'n	Z <sub>1</sub>
Filtrowa	XI	laid-out with Waterworks/1890/	C
Flory	IX	laid-out in 1901	A
Foksal	X	laid-out in 1880	A
Franciszkańska	II+IV	ex-field road + church access	X
Freta	II	mediaeval suburban high street	B
Furmańska	I	Mariensztat exit road /1762/	X
Garbaczka			

Street	Location	Laid-out/regulated	Post-1945
Garbarska	I	Mariensztat /pre-1762/	X
Gęsia /Anielewicza/	IV+V	ex-field road, regul.1760s	X, Z <sub>1</sub>
Gliniana	V	laid-out 1860s, regul.1879	Z <sub>1</sub>
Gnojna	VII	Wielopole "jurysdyka"/1667/	Z <sub>1</sub>
Górna/Górnoślaska	XIII, IX	named and regulated in 1770	B
Graniczna	VII+XII	E.border of Grzybów township	Z <sub>2</sub>
Grzybowska	VII, VIII, VI	ex-field road + borderline	X, B
Hipoteczna	XII	laid-out c.1900, cul-de-sac	B
Hortensja/Górskiego/	X	laid-out 1882-3, cul-de-sac	B
Hoża	XIII+XI	ex-field road, extended 1860s	X+A
Inflancka	II+IV	ex-field road, regul.1770	O
Instytutowa/Matejki	XIII	laid-out c.1860 /"Noble"Inst./	X
Jasna	I+X	Bielino "jurysdyka"/1757/ extended in 1902	B
Aleje Jerozolimskie	X, XIII, VIII, XI	1774, extended 1823/4, new numeration c.1908/"Aleje"/	A, B
Kacza	III	ex-field road, regul.c.1770	B
Kaliksta/Śniadeckich/	XI	1784; Ujazdów blvd.network	B
Kapitulna	I	jurisdiction high st./1638/	B
Kapucyńska	XII	laid-out c,1891, cul-de-sac	Z <sub>2</sub>
Karmelicka	III	church service rd.extended 1865	X
Karowa -Upper	I	lane leading to Powiśle, Viaduct	B
Klonowa	IX	laid-out c.1875	A
Kłopot	IV	N.extension of Bonifraterska	O
Komitetowa	VIII	link-road Pańska/Prosta 1870s	Z <sub>1</sub>
Konwiktorska	II	church road 1750s; Citadel esplanade line in II	B
Kopernika /ie Copernicus/	X	replacing Aleksandryja + Wróbla /after 1908/	B
Koszykowa	IX+XI	Customs Wall road /SW/ 1770	B
Kościelna	II	mediaeval suburban street	B
Ct. Kotzebue /Fredry/	XII	laid-out 1879/Brühl Pal.gdns./	B
Kozia	I+XII	back-road of Krakow.Przedmieście	A
Koźla	II	back-road of Freta/Zakroczymska	B
Krakowskie Przedmieście	I+XII	ex-mediaeval suburbs high st., adapted from Cl6 to Royal Route	A
Krochmalna	VII	ex-field road, regulated 1760s	Z <sub>2</sub> , B
Królewska	VIII, XII, I	CBD extension of Grzybowska	B, X
Krucza	XIII	1770, extended 1823 /Aleja Jś/	B, X
Książęca	XIII	former stream, pre-1770	X
Kupiecka	IV	laid-out 1897, cul-de-sac	Z <sub>1</sub>
Leopoldyna/E.Plater	XI	laid-out 1872	B
Leszno/ E-W Thoroughfare	III+VII	Leszno "jurysdyka" /1648/	B, X

Street	Location	Laid-out/regulated	Post-1945
Litewska	IX	laid-out 1877	A
Łucka	VI	ex-field road, regulated c.1770	B
Marszałkowska	I,X,VIII, XIII, IX,XI	laid-out c.1757 as Bielino high street, extended to Ujazdów	X,B
Mariensztat	I	main street in Mariensztat	B
Mariańska	VIII	laid-out after 1864	X
Mazowiecka	I	ex-highway built up from CI7	B
Miedziana	VI	laid-out c.1868	B
Miła	IV+ V	ex-field road, extended c.1879	X
Miodowa	I,XII	former extra-muras service road <del>XXXXXXXXXXXXXXXXXXXX</del>	B
Mirowska	VII	c.1712, Mirów barracks/square	X
Mławska	II	laid-out 1899/1900	Z <sub>1</sub>
Młocińska	V	N.extension of Okopowa /1880s/	Z <sub>2</sub>
Mokotowska	XIII,XI,IX	ex-highway to Mokotów	A
Moniuszki	X	laid out in 1902	B
Mostowa	I, II	mediaeval bridge road	B
Mularska	I	Mariensztat side street /1762/	X
Muranowska	IV	ex-field road, regulated c.1770	Z <sub>1</sub>
Mylna	III	back road in Leszno "jurysdyka"	Z <sub>1</sub>
Nalewki	IV	part line of Bełcząca stream, high street of Jewish district	Z <sub>2</sub>
Natolińska	IX	laid-out c.1899	X
Niecała	XII	ex-garden access road	X
Niska	IV+ V	ex-field road, extended c.1879	X, Z <sub>1</sub>
Nowiniarska	II+IV	laid-out c.1815; Jewish district	Z <sub>2</sub>
Nowodzika	IV	laid-out c.1890	Z <sub>1</sub>
Nowogrodzka	XIII, XI	ex-field road, regulated 1760s	A
Nowojasna	X	laid-out after 1898; cf. Jasna	
Nowokarmelicka /Marchlwskiego/	III, V	laid-out c.1879, not linked with Karmelicka	Z <sub>2</sub>
Nowolipie	III	ex-field road behind Leszno St.	X
Nowolipki	III	ditto, regulated in early-C18	X
Nowomiodowa	I, XII	prolongation of Miodowa 1887	B
Nowopróżna	VIII	cf. Próżna	
Nowosenatorska	XII	former access-road from CI7	X
Nowosienna/Sienkie- wicza/	X	laid-out c.1902	B
Nowowielka	XI	laid-out c.1900-1 /Lwowska/	A
Nowowołyńska	V	cul-de-sac laid-out after 1880	Z <sub>1</sub>
Nowowiejska	IX+XI	Stanislas-Augustus Axis /1767/	B
Nowospólna /Oczki/	XI	laid-out c.1872/extension/	B
Nowozielna	VIII	N.extension of Zielna	
Nowy Świat	X, XIII	S.prolongation of Royal Route, built up from early-C18	B

Street	Location	Laid-out/regulated	Post-1945
Obożna	I+X	ex-palace service road, reg. 1770	B
Ogrodowa	VII	ex-back road in Leszno /1648/	B, Z <sub>1</sub>
Okopowa	III, V	Customs Wall, NW, new rd. 1870	B
Okólnik	X	/"Circular"/, 1 outlet, 1884	B
Ordynacka	X	high street of "jurysdyka" 1739/	B
Orla	XII/VII	link-road-1739-in Leszno	X
Ostrowska	V	laid-out c. 1879	Z <sub>1</sub>
Pańska	VIII, VI	Bielino-Wola artery /1757/	B
Pawia	III, V	ex-field road, regulated 1760s	X, Z <sub>1</sub>
Parysowska	V	laid-out c. 1893 with Square	X
Piekiełko	I	small square built-up in CI8	Z <sub>1</sub>
Pieszka	II	mediaeval suburban street	B
Piękna	XIII/IX, XI	border- + ex-field road /CI6/	B
Podwale	I	following mediaeval walls	B, X
Pokorna	IV	N. prolongation of Nalewki	O, X
Polna	XI	Customs Wall, SW, new rd. 1870	B
Prosta	VIII, VI	ex-field road, parallel Pańska	X, B
Próżna	VIII	link road, extended c. 1862	B
Przebieg	IV	link road, Murano Palace	Z <sub>1</sub>
Przechodnia	VII	Wielopole "jurysdyka" /1667/	X
Przejazd	III, XII	behind Sigismund Walls /1620/	Z <sub>1</sub>
Przeskok	X	link road Zgoda/Szpitalna	X, B
Przybrzeżna	I	river embankment 1820s	Z <sub>2</sub>
Przyrynek	II	mediaeval suburban street	B
Ptasia	VII	Wielopole street network, 1667	Z <sub>1</sub>
Rozbrat	XIII	below escarpment /Powiśle/	X
Aleja Róż	IX	laid-out c. 1891	B
Rymarska	XII	access road to Bank Square	Z <sub>1</sub>
Rysia	I	Bielino "jurysdyka" /1757/	X
Sadowa	XIII	street block access st. /1896/	B
Samborska	II	mediaeval suburbs back-street	X
Sapieżyńska	II	ex-field road, regulated 1760s	X
Senatorska	XII, I	SW mediaeval arterial highway	B, X
Sewerynów	X	Aleksandyja "jurysdyka" /1670/	X
Sienna	VIII, VI	ex-field road, extended in CI9	B, Z <sub>1</sub>
Sierakowska	IV	laid-out c. 1871; Kowal Stn.	Z <sub>1</sub>
Skórzana	VII	Wielopole street network, 1667	Z <sub>1</sub>
Składowa	XI	laid-out c. 1867 /Pankiewicza/	A
Służewska	IX	laid-out 1899	X
Smocza	III, V	back service rd., extended CI9	X, Z <sub>2</sub>
Smolna -Upper	X	ex-field road off Nowy Świat	A, B

Street	Location	Laid-out/regulated	Post-1945
Sochaczewska	V	laid-out c.1879	Z <sub>1</sub>
Solna/Marchlewsk./	VII	back road to Leszno Cl7	B,X
Sosnowa	VIII	link road Chmielna-Śliska	X
Sowia	I	Mariensztat, c.1762	X
Srebrna	VI	laid-out c.1864	B
Stawki	IV+V	ex-line of R.Drna, reg.1770	X, Z <sub>2</sub>
Szara	II	mediaeval suburban back street	X
Śczęśliwa	V	laid-out c.1890	Z <sub>1</sub>
Szczygła	X	access road from RC convent Cl7	X
Szkolna	I	Bielino /1757/	X
Szopena/Chopin/	IX	laid-out 1895	X
Szpitalna	X	Christ Child Hosp.access rd./1757/	B
Aleja Szucha	IX	Ujazdów blvd./rond-point network	B
Śliska	VIII	ex-field road, regulated 1760s	B, Z <sub>1</sub>
Świętojerska	II+IV	mediaeval field/church road	X, Z <sub>2</sub>
Świętokrzyska	VIII, X, I	mediaeval field/border road	X, B
Tamka	X	highway Warsaw-Solec, mediaeval	B
Teodora/Chałubiński/	XI	laid-out c.1881	B
Tłumackie	XII	"jurysdyka", 1750s + square	X, B
Topiel	X	below escarpment /Powiśle/	X
Topolowa/Niepodległ./	XI	laid-out c.1881	B
Towarowa	VI, VII	Customs Wall, W, new rd.1870	X
Trębacka	XII	Dziekanka "jurysdyka" street	X, B
Twarda	VIII, VI	SW extension of Senatorska/Gran.	B, Z <sub>1</sub>
Aleje Ujazdowskie	XIII, IX	1721-'31; August II's South Axis	A
Waliców	VII, VI	1767-'9 and later extensions	X, B
Wałowa	IV	behind Sigismund Walls /1620/	X, Z <sub>2</sub>
Warecka	X	ex-field road off Nowy Świat	X, B
Widok	X	ex-field road, truncated by Warsaw-Vienna Railroad/1840	X, A
Wiejska	XIII	mediaeval highway to Jazdów	A
Wielka/Poznańska/	XI	regulated 1770, extended c.1880	A
Wierzbowa	XII	ex-mediaeval highway	X, B
Więzienna	III	link road by Pawiak Gaol	Z <sub>1</sub>
Wilcza	XIII + XI	ex-mediaeval field road, reg.1770	A
Włodzimierska	I	laid-out 1865 /Czackiego/	B, X
Wolność	III	Leszno back road, Kościuszko walls	B
Wołyńska	V	laid-out c.1879	Z <sub>1</sub>
Wójtowska	II	demarcation line of New Town/N/	X
Wronia	III, VII, VI	laid-out 1760s, extended 1860s	X, B
Wróbla	X	laid-out before 1770, cf.Kopernika	
Wspólna	XIII + XI	ex-field road, regulated 1770	X, B

Street	Location	Laid-out/regulated	Post-1941
Wysoka	X	cul-de-sac off Smolna, c.1909	B
Zakątna	II	extension of Wójtowska St.	X
Zakroczyńska	II	N.extension of Freta High St.; mediaeval highway to Zakroczym	C,X,B
Zgoda	X	mediaeval highway/Bagno-Bracka/	B
Zielna	VIII	Marszałkowska parallel, C19 extensn	B,X
Zimna	VII	Wielopole street network, 1667	Z <sub>1</sub>
Zjazd/Nowy Zjazd	I	leading to bridges I+II, 1843, 1864	X
Złota	VIII,X	ex-field road, regulated 1760s	B, Z <sub>1</sub>
Żabia	VII	Senatorska-Graniczna link road	X
Żelazna	III,VII, VI,VIII,XI	country back lane C17, extended in 1760s + mid-C19	B,X
Żurawia	XIII-XI	ex-field road, reg. C18, extensn. C19	B
Żytnia	III	ex-field road Nowolipie-Wola	B
Źródłowa	I	access road, Mariensztat-Old Town	X

A. Supplement 1 : MEDIAEVAL-COLONIAL-TOWN /STARE MIASTO/

Founded in the 13th. century, streets located and regulated on a chequerboard plan at the turn of that century :

Brzozowa/intra muras/	Piekarska
Celna/formerly Gnójna/	Piwna/formerly Św. Marcina/
Dunaj /Szeroki + Wąski/	Rycerska/intra muras/
Jezuicka/formerly Św. Jana/	Ślepa/intra muras/
"Kamienne Schody"	Świętojańska/formerly Grodzka/
Kanonia /ex-cemetery/	Zapiecek/formerly Piekarska-E./
Krzywe Koło	Żydowska/until C16/C17/
Nowomiejska/"ku nowemu miastu"/	

Market Place /Rynek Starego Miasta/ :

90x73m. Merchants houses /nos.1-42/ rebuilt after 1947 on Gothic foundations/cellars and even groundfloors in Renaissance, Baroque and neo-Classical-styles.

Town Hall demolished in 1818, market operated until early-C20.

A. Supplement 2 : ŻOLIBORZ-FAWORY /ex-Northern District/

Streets militarised or liquidated in 1832-'56 and c.1871 :

Przyrynek/partial/, Samborska/partial/, Zakątna/N.side/, Głęboka, Klimowa, Dominikańska, Kręta, Skąpa, Spadek, Gwardii, Fawory, Czujna, Pólkowska, Koszary, Bitna, Żytnia, Śmiała, Tania, Szymanowska, Zielona, Inflancka, Żółwia, Sucha, Wesoła, Kłopot, Bonifraterska/N.end/, Wygon, Konwiktorska/N.side/, Pokorna/N.end/ Stawki/N.side/, Rybaki/N.end/.

Gwardia/Guards' / Square

Laid out from the mid-1720s with Gwardia Avenue /Northern Axis/, as a military parade ground, built-up on 3 sides with army barracks /extended in the 1820s, later occupied by the tsarist military/.

Barracks partially retained following wartime destruction 1939 and 1945.

Military property /no access to the public/, apart from the "10th. Pavilion" museum of Polish underground patriotic martyrdom 1863-1918.



B. POWIŚLE /riverside, inner-peripheral district/

Most streets originating as dirt/mud tracks or palace service roads in the C16 - C18.

Regulation carried out in most cases in the C19-C20 :

1764-1792 :

Agrykola/Lower/, Huzarska/now 29.Listopada/, "Aleja Jerolimowska"/Lower/, Książęca/Lower/, Myśliwiecka, Rozbrat, Solec High Street, Tamka/Lower/, Czerniakowska/hither/;

1815-1856 :

"Bulwar"/1st.stage/, Browarna, Czerniakowska/Agrykola-Książęca intersections/, Dobra, Furmańska, Górna/Lower/, Karowa/Lower/, Ludna, Oboźna/Lower/, Okrąg, Smolna/Lower/, Topiel, Zaokopowa/now Parkowa/, Drewniana-Gęsta-Wiślana-Lipowa-Radna-Leszczyńska-Zajęcza parallel streets/between Dobra + Browarna/Topiel lines/;

1856-1888 ::

Fabryczna, Łazienkowska, Przemysłowa, Szara, Agrykola/Lower-extended/;

1888-1915 ::

Bulwar/from 3rd.Bridge to Mariensztat/, Czerwonego Krzyża, Dobra/extension/, Aleje Jerolimskie/3rd.Bridge Viaduct/, Karowa/"Slimak" Viaduct/, Leszczyńska-Lipowa-Zajęcza street extensions, Radna cul-de-sac extension, Wilanowska, Ślaska and Elektryczna.

B. Supplement : RYBITWY-RYBAKI ex-fishermen's settlements

Boleść, Bugaj, Kościelna/Lower/, Kucharska, Rybaki, Zakątna /partial regulation in C19 or early-C20/

C. WOLA SUBURB /municipal and post-1916 incorporations/ :

Principal highways and by-roads regulated prior to 1856 :

Droga Kościelna/in Czyste Parish/, Droga Królewska/W.prolongation of Nowowiejska St./, Karolkowa/border road between Old Warsaw + Wola parishes/, Młynarska, Leszno W.extension, Nowokrochmalna W.extension, Obozowa highway/to Koło/, Wolska High Street;

1856-1888:

Hrubieszowska, Karolkowa extended, Kolejowa, Nowogrzybowska extension, Nowowolska extension, Nowożytnia extension, Przyokopowa;

1888-1915 :

J. Długosza/extension of N. żytnia/, Dworska, Elekcyjna, Górczewska/extension of Leszno regulation/, Kolska, Młynarska/widened/, Moczydło, Obozowa/regulation/, Prądkowskiego/Droga Królewska widened/, Skierniewicka, Spokojna, Szlenkierów, Tylna Młynarska, Tyszkiewiczza, Zbożowa.

Opole Square /Plac Opolski/ laid out as a new central-district square after 1908; plot demarcation but little building activity prior to 1915.

Note : 57 "privately-owned" streets /largely unregulated/ were recorded in Czyste Parish /ie post-1916 "arrondissements" XIX, XXII and part of XXIII/ at the time of the so-called Great Incorporation.

C. Supplement 1 : TENEMENT ENCLAVE IN KOSZYKI /XI/ "OKRĄG"

Grójecka/Radom Highroad "beyond the Jerusalem Toll Gate/s" regulated after 1815; Raszyńska highway/to Raszyń village/ regulated after 1884/Waterworks/; Królewska Droga/later Niemcewiczka/ defining the southern limit;

Daleka/"Hinter"/ + Tarczyńska/initially "street without a name"/"ulica bez nazwy"/ laid out before 1893.

C. Supplement 2 :: POWĄZKI SUBURB /in OKOPOWA /V/ "OKRĄG"

Powązkowska as principal high street and NW exit route prior to CI9;

New streets and regulations 1856-1915 :

Powązkowska widened/military purposes/, Burakowska, Młocińska extension, Piaskowa.

D. PRAGA /East Bank district, "cyrkule"/"okręgi" XIV and XV/

Prior to 1794 :

OLD PRAGA - "Brukowana", Zerwańska, Książęca, Senatorska, Szeroka, Rynkowa, Ratuszowa, Brudzińska, Zatylna, Mostowa, Garbarska, Wyporna, Szewska, Nadwiślana, Przewozowa, Praska, Ciemna, Żupna, Piaskowa, Nowa;

SKARYSZEW - Żąbkowska, "przy Targu"/ie Targowa/, "przy Targowisku Wielkim"/ie Targowa-Wołowa/, "Brukowana", Niemiecka, Krowia, Rynek Słodowy, Piaskowa, Krzyżowa;

GOŁĘDZINÓW - Zakroczymska, Garbarska, Graniczna, Nadwiślana.

Remaining streets of "Old" Praga in 1869 /certain name-changes/:

Żąbkowska, Ratuszowa, /Dziwna/, St.Peterburgska/laid-out after 1815/, Strzelecka, Krzywa, Dębowa, Wodna, Mizerna, Błotna, Grodzińska, Targowa, Wołowa, Żupna, Sprzeczna, Farna, Brukowa /regulated c.1818 - formerly Nowa/, Szeroka, Olszowa, Panińska.

New streets demarcated in the 1864 urban plan /tsarist/ :

Aleksandrowska, Moskiewska, St.Petersburgska/extended/, Michajłowska, Namiestnikowska, Konstantynowska.

New streets and regulations c1870-1915 :

OLD PRAGA - Brzeska, Inżynierska, Markowska, Wrzesińska;

KONOPACCZYŻNA - Konopacka, Esplanadowa, Wileńska/c.1862/, Mała, Stalowa, Strzelecka/N.extension/, Kowieńska, Bródnowska, Srodkowa, Szwedzka;

SZMULOWIŻNA - Radzywińska, Kawęczyńska, Białostocka, Łomżyńska, Wołomińska, Łochowska, Siedlecka, Otwocka;

KAMIONEK - Grochowska/Brest Litovska Highway laid-out in c1823/, Skaryszewska, Mińska, Lubelska, Terespolska, Podskarbińska.

E. MOKOTÓW SUBURB

1898-c1904 :

Nowoaleksandryjska/Puławska/ High Street regulated and widened, ditto Rakowiecka/ex-field road opened up in 1880s/, Narbutta, Grodzka, Różana, Szustra, ex-field roads regulated;

c.1910-1915/18 :

side streets laid-out : Sandomierska, Kwiatowa, Asfaltowa, among other, lesser back roads.

Note : 56 streets "open to public use" were recorded in 1916 in Mokotów Parish /incl.Sielce/

E. Supplement : SIELCE SUBURB /Mokotów Lower Town/

c.1898-1904 + 1910-'15 :

Belwederska and Czerniakowska arterial roads tar-macadammed, Chełmska regulated, Stępińska, Sielecka, Iwicka, Czerska laid-out/regulated, 25 lesser, suburban back-streets mainly unregulated.

F. OCHOTA SUBURB

c.1898-1903 + 1908-'15 :

Grójecka/ex-Radom Highroad/tarmacadammed, Kaliska regulated, Szczęśliwicka/lower Czysta Village/ regulated, Spiska, Sękocińska, Barska, Węgierska, Kopińska, Częstochowska, Winnicka, Rokosowska new streets laid-out from 1908/'11, Opaczewska ex-field road regulated /border road with Rakowiec village/.

G. BRÓDNO PARISH /urbanised areas incorporated in 1916/

c.1880-1915 :

101 "streets" laid-out /mainly unregulated dirt tracks/ :

NOWE BRÓDNO	.....	25	
TARGÓWEK/UTRATA	..	63	predominantly private
PELCOWIZNA	.....	13	

H. MŁOCINY PARISH /urbanised area incorporated in 1916/ :

c.1890-1915 /especially post-1911/ :

number of streets unrecorded ; dirt tracks/ back lanes in Powęzki, "Kolonijka", Izabelin, Parysów, Czarny Dwór, Buraków "Duży", Młociny "B", Słodowiec, Kaskada, Marymont, Grossów, Polków, Ruda, Potok and Kępa Potocka wooden townships, hamlets, villages or colonies.

I. GROCHÓW SUBURB /in Wawer Parish/

No streets recorded prior to the 1920s ; country roads and dirt tracks in Grochów I and II settlements, as well as Saska Kępa, Gocław and Kępa Gocławska hamlets.

J. CZERNIAKÓW and SIEKIERKI HAMLETS /in Wilanów Parish/

No streets recorded prior to the 1920s ; country roads and dirt tracks.

SOURCES : Taryfy Domów /Warszawy/, 1770, 1784, 1819, 1832, 1852, 1869, 1880, 1893, 1897, 1901, 1908, 1915; W. Małcużyński /"Rozwój terytorialny miasta Warszawy"/1900/; O. Sosnowski /"Powstanie, układ i cechy sieci ulicznej"/.../Warszawy"/1930/; S. Szymkiewicz /"Wielka Inkorporacja"/1930-Kronika Warszawy/; E. Szwanowski /"Warszawa"/1953/ and "Ulice i place Warszawy"/1970/; A. Słoniowa /"Początki nowoczesnej-infrastruktury Warszawy"/1978/.

17

PUBLIC SQUARES IN THE CITY CENTRE AND TENEMENT BELT

Św. Aleksandra/St. Alexander's Square /Pl. Trzech Krzyży/

Starting point of August II's Calvary Route /Southern Axis/ at the convergence of the Royal Route, Bracka-Mokotowska highway and intersecting streets Książęca, Żurawia, Wspólna and Hoża. Public square from 1787, enlarged 1817 /5 houses demolished/. St. Alexander's church raised 1818-26, enlarged 1886-94.

Bankowy/Bank Square /Pl. F. Dzierżyńskiego, 1951-'90/

Public square opened up in 1825 on the site of a former palace forecourt /Ogiński family/, fronted by state financial institutions on the W. side, bourgeois residences on the E. /non-extant/.

Broni/Arms Square

Laid-out in 1824 as an army exercise ground, partially occupied in c. 1890 by railway sidings, yards + warehouses, now urban fallow and housing estates.

Grzybowski/Grzybów Square

Former market square of Grzybów township at the convergence of Graniczna-Twarda, Królewska-Grzybowska + Bagno streets; location in c. 1650. Town hall pulled down 1830, C19 open market, parish church built on the S. side.

Krasińskich/Krasiński Square

Former Krasiński Palace forecourt /C17/, 1789 public square and 1st. National Theatre building, named after Krasiński family in 1815, fronted by palace, courts and merchant-tenement houses.

Muranowski/Muranów Square

Former Murano Palace forecourt, public sq. after 1790, built up with tenements from late-1860s, market place for Nalewki district. Completely obliterated 1943, ground plan not retained thereafter.

Parysowski/Parysów Square

N. Okopowa district new market square laid out after 1893, plan partially retained since 1945, never fully built-up.

Ronds-points /place Na Rozdrożu, Unii Lubelskiej, Zbawiciela/

Laid-out in 1767/8 as part of the Ujazdów boulevard street plan, known originally as "Rotunda"/Pl. Zbawiciela/, Rondo Mokotowskie /Pl. Unii Lubelskiej/ and /still retained/"at the parting of the ways"/"Na Rozdrożu"/.

Rynek Nowego Miasta/New Town Market Square

Located prior to 1408, town hall /demolished in 1818/, houses in brick/stone raised from the early-C16, occupying NW portion of the originally 4-sided square, low building/wooden/ and some neo-Classical merchants houses, heightened or partially repalced from the 1890s by tenement high-rise, rebuilt since 1947, 2-storey cornice obligatory.

Saski/Saxon Square /Place Piłsudskiego i Zwycięstwa/

expansive forecourt adapted from former Morsztyn Palace forecourt for August II's summer residence /1712-'27/, barracks on the N.+S. sides, later occupied by the Prussians, French + Russians. Saxon Palace rebuilt in 1839-'42, private building to N.+S., state-public to the E., Russian Orthodox Cathedral in the middle 1894-. Only Europejski Hotel + ex-Russian War Ministry retained.

### Teatralny/Theatre Square

Public square created on the site of the demolished Marywil Trade Centre and by incorporating the ex-Pocieją market square/1820s/. Grand Theatre put up 1825-32 opposite the /new/TownHall, E.+ W. sides built up with neo-Classical houses, partially replaced or adapted in tenement property development from c.1890. Buildings burnt out 1939 + esp. 1944, only the Theatre and Blank Palace survived post-war redevelopment, as well as 2 neo-Classical houses, N. side empty to date, facing the E-W thoroughfare.

### Ujazdowski/Ujazdów Square

Opened up by widening Ujazdów Ave. below Piękna St. c.1825 as far as Na Rozdrożu circus ; turned into the Ujazdów Park after 1893.

### Warecki Square

/Napoleon and Powstańców Warszawy/

Open space created before the 1st. Christ Child Hospital 1753-'56, public square laid-out 1823-26, when PO building raised, enlarged in 1900, later fronted by the state pawnshop/1885/. Hospital buildings demolished from 1900 and new streets laid-out on the W.side/Boduena, Nowosienna, Moniuszki, also Nowojasna/. Banks and luxury tenements, partially demolished after 1945 to be replaced by new banks etc.

### Witkowskiego/Witkowski Square

Laid-out after 1868 on the axis of extended Sienna Street as a market place for the newly-created Towarowa commissariat /VI/, built up with tenements thereafter. A market hall raised in the centre c.1900/1. Square liquidated after 1948.

### Zamkowy/Castle Square

Created out of the former /main/ Royal Castle forecourt and by pulling down part of the mediaeval walls, Cracow Gate and merchant houses/Bernardyńska St./ after 1806 /J.Kubicki arch./, thereby opening up the Old Town to Krakowskie Przedmieście. A partially-completed urban conception never to be seen through.

### Zielony/Green Square

/Pl. J.Dąbrowskiego/

Former market square of Bielino jurisdiction-township /1757/, operating as a market place until the 1880s. Town houses raised from the mid-C19, later dept.stores, luxury salons and banking houses, partially replaced since 1939/45.

### Żelazna Brama/Iron Gate Square

Former market square of Wielopole jurisdiction /1667/. The market operated until 1943/44. Built up in various stages ; ground- and single-storey houses, low stone/brick houses, neo-Classical merchants houses, partially replaced by tenement high-rise from the late-C19. Total obliteration in 1939-44 and 1945-65. Original urban plan not retained.

SOURCES :: O.Sosnowski/"Powstanie, układ i cechy sieci ulicznej... /.../Warszawy"/; E.Szwankowski/"Ulice i place Warszawy"/; P.Biegański, W.Tatarkiewicz/"Place Warszawy"/in "Kronika Warszawy"/1970/; Z.Stępiński/"Siedem placów Warszawy"/1988/.

PRINCIPAL STATE, MUNICIPAL AND PRIVATELY-FUNDED PUBLIC BUILDINGS

RUSSIAN STATE-OWNED

- A Main Post Office
- B Telegraph Office
- C Telephone Exchange
- D1 Vienna Railway Station
- D2 Kalisz " "
- E Moscow " "
- F St.Petersburg Rly.Stn.
- G Vistula-Baltic Line Stn.
- H Tram Depot
- I Kowal Line Station
- J ex-Royal Castle
- K Warsaw Region Army HQ
- L General Army Staff HQ
- M Rgnal. Artillery Division HQ
- N Rgnal. Enginner Corps HQ
- O Military Commission HQ
- P1 Tsarist Barracks in the tenement belt
- P2 Pawiak Gaol
- Q Warsaw Police HQ
- R New State Bank
- S ex-State Bank + Exchequer
- T Provincial Govt. Buildings
- U Ministry of Justice
- V Main Archives
- W Warsaw Province Courts
- X University /Russian language/
- Y Polytechnic
- Z 1st.Grammar School

CITY PROPERTY AND MUNICIPALLY-FUNDED PROJECTS

- 1 City Hall
- 2 Fire Station HQ
- 3 Pawn Brokers
- 4 Gościnny Dwór Mkt. Hall
- 5 Mirów Market Halls
- 6 Towarowa Market Hall
- 7 Koszyki Market Hall
- 8 Świętojerska Market Hall
- 9 Christ Child Hospital
- 10 Municipal Waterworks
- 11 Electricity Power Station
- 12a "Grand" Theatre
- 12b Public Library "Koszyki"

RELIGIOUS TEMPLES

- 13 St.Johns RC Cathedral
- 14 All Saints' RC
- 15 St. Alexanders
- 16 St. Peter-Paul
- 17 St. Florians /Praga/
- 18 Powązki RC Cemetery Church
- 19 Evangelical Church
- 20 Calvinists' Church
- 21 Russian Orthodox Cathedral
- 22 Holy Trinity Russ.Orth.Cath.
- 23 St.Mary Magdalene Orthodox
- 24 Tsarist Army Orthodox Ch.
- 25 Praga Synagogue
- 26 Reformed Synagogue
- 27 Community Orthodox Synagogue

PRIVATE BUILDINGS INTENDED FOR PUBLIC USE

- 28 Trade Bank
- 29 Bank of Discount
- 30 Azov-Don Bank
- 31 Municipal Credit Society
- 32 Rural Credit Society
- 33 Merchants Club
- 34 Artisans Club
- 35 /Polish/ Citizens' Club
- 36 Russian Club
- 37 Stock Exchange
- 38 Jabłkowski Bros. Dept. Store
- 39 Simons Trade Centre
- 40 Lesser's Trading Emporium
- 41 Luksemburg's Shopping Arcade
- 42 Friedman's Shopping Passage
- 43 "Rosja" /Russia/ Insurance Comp.
- 44 Museum of Industry and Farming
- 45 Museum of Handicrafts
- 46 Trading College
- 47 Summer Theatre /wooden/
- 48 "New" Theatre
- 49 Rozmaitości Theatre
- 50 "Polski" Theatre
- 51 Philharmonic Hall
- 52 Circus
- 53 Krasiński Family Library
- 54 Zachęta Society Art Gallery
- 55 Fine Arts School
- 56 Jewish Childrens' Hosp.
- 57 Jewish Community Centre
- 58 Warsaw Charity Society HQ
- 59 Vienna Hotel
- 60 "Europejski" Hotel
- 61 Bristol Hotel
- 62 Polonia Hotel
- 63 "Golgotha" Panoramic Rotunda  
(confiscated by US customs in 1920s,  
the painting has never been returned)

## ANNEX

## AN INVENTORY OF BUILDING PLOTS IN LEFTBANK WARSAW 1852/'68-1914

Table I:

CATEGORISATION OF PROPERTIES ACCORDING TO PERIOD OF CONSTRUCTION  
AND/OR REDEVELOPMENT\*

District ("okrag")	Total number of propen- ties	Properties built in the years:							Redeveloped:				
		prior to 1860	1861~ 1890	1891~ 1900	1901~ 1910	1911~ 1914	after 1915	period Unknown	prior to 1900	1901~ 1910	1911~ 1914	after 1915	Unknown
I	416	216	55	16	24	14	6	85	31	20	22	5	5
II	411	311	28	14	10	14	3	31	22	21	25	4	1
III	566	41	216	109	55	61	2	82	33	46	45	7	1
IV	231	28	96	41	21	8	1	36	21	24	16	-	1
V	413	22	135	88	50	53	4	61	16	21	31	5	1
VI	429	24	127	94	39	42	7	96	28	25	24	10	1
VII	501	49	205	85	54	51	5	52	20	18	25	7	1
VIII	428	16	200	52	38	29	8	85	25	15	16	4	1
IX	296	9	78	54	31	25	12	87	13	10	7	4	1
X	465	56	163	33	67	53	5	88	29	23	27	6	1
XI	474	13	99	93	82	46	3	138	17	26	23	7	1
XII	312	75	146	22	20	18	1	30	24	20	12	4	1
XIII	473	39	204	66	33	24	7	100	9	17	24	5	1
XIV	476	10	107	80	46	64	4	161	19	31	31	3	1
XV	471	31	78	97	60	43	5	157	17	13	13	3	3
XVI	418	24	42	51	76	102	10	115	14	20	27	5	1
XXII	403	21	70	72	37	58	2	146	12	14	10	2	1
MID-TOWN I-XIII	5415	899	1752	767	524	438	64	971	288	286	297	68	7
PRAGA XIV/XV	947	41	185	177	106	107	9	318	36	44	44	6	3
SUBURBS XVI-XXVI	3774	109	449	589	675	761	65	1126	64	137	130	25	4
GREATER WARSAW	10136	1049	2386	1539	1305	1304	138	2415	388	467	471	99	14

\* Data based on "Tablica"VII of "Rezultaty...", Vol. I, Part II.

Table II:

LOCATION OF BUILDING PLOTS ACCORDING TO LAND REGISTRY NUMERATION  
(based on the Dzierżanowski Registrar of 1868/'9)

LAND REGISTRY NUMBERS	SUB-STUDY AREA	SPECIFIC LOCATION/ADDRESS
1 - 218	Stare Miasto (CBD - C)	mediaeval nucleus/market place
219 - 235	Nowe Miasto (T.1)	Mostowa St. - north side
236 - 247B	CBD - C	Mostowa St. - south side
248/9 - '80	Tenement Belt 1	Freta St./ex-mediaeval suburb
281 - 305	CBD - C	mediaeval infill
306 - 362	T.1	Market Place and environs
363 - 365	CBD - C	Pancer's Viaduct (demolitions)
366 - 405	N. Central (CBD-B+E)	Krakowskie Przedmieście (E. side)
406/7 - '12	Bank District (CBD-A)	Berga/Włodzimierska streets
413 - 503	CBD - B+E	Krakowskie Przedm./Saxon Gdns. (Senatorska-Miodowa-Podwale stą
504 - 533	CBD - C	Podwale/post-mediaeval infill
534 - 644	CBD - B+E	Długa-Bielajska-Wierzbowa sts.
645/6 - '96	Leszno (Tenement 2)	Leszno St. - north side
697 - 714	Mirów (Tenement 6)	Leszno St. - south side
715 - '37/8	Mirów CBD (T.5)	Leszno St. - CBD
739 - 742	CBD - B+E	Tłomackie Sq./Rymarska St.
743 - 755	T.5 - assimilation	Bank Sq.-west side/Solna St.
756 - 781	Tenement 6	Elektoralna - west end
782 - 804	CBD-T.5	Elektoralna St. - east end
805 - 812	T.6	Solna St. - west side
813 - 820	CBD-T.5	Solna St. - east side
821 - 934	T.6	Ogrodowa and Chłodna streets
935/6 - '90	CBD-T.5	za Żelazną Bramą market area
991 - 1007B	T.6	Krochmalna St. - west end
1008A - 1030	CBD-T.5	Krochmalna/Grzybowska streets
1031 - 1036A	T.6	Grzybowska west end/north side
1037 - 1053	Towarowa (T.8)	Grzybowska west end/south side
1054 - 1065	Grzybów (T.7)	Grzybowska east/Królewska west
1066A - 1076	CBD - A	Królewska St.- east end
1077A 1078CD	CBD - B+E	Graniczna St.-east side
1079 - 1091°	Tenement Belt 7	Grzybów Sq./Twarda Street
1092A - 1093	Tenement Belt 8	Twarda St.- SW extension
1094A - 1107A	T.7	Grzybów Square/Twarda Street
1108 - 1112	T.8	Ciepła/Waliców streets
1113A - 1116	T.6	Waliców St. - north end
1117 - 1123	T.8	Ceglana St. profile + environs



(continuation)

land registry numbers	sub-study area	specific location/address
1124 - 1129	Mirów (T.6)	Żelazna Street profile in T.6
1130/1 - '32	Leszno (T.2)	Żelazna Street profile in T.2
1133 - 1142	Mirów (T.6)	" " " in T.6
1143 - 1173B	Towarowa (T.8)	Żelazna/Żucka sts./Witkowski St
1173C - '73E	T.6	Wronia St. in T.6
1174 - 1191AB	T.8	Pańska St. in T.8-south side
1192 - 1222	Grzybów (T.7)	Pańska St. in T.7 (profile)
1223 - 1243A	T.8	Pańska St. in T.7-north side
1244A - '44B	T.7	Bagno St./Pociejów II Market
1245A - '46	Bank District (CBD-A)	Nowy Świat north end
1247 - 1321	Nowy Świat (CBD-F)	Nowy Świat - street profile (includes 1269-'86B in T-10)
1322 - 1328	CBD - A	Świętokrzyska Street profile
1329 - 1330	T.7	
1331AB-1345B	CBD - F	
1346B 1352B	CBD - A	Mazowiecka Street profile
1353 - 1361	CBD - F	Szpitalna/Warecka streets
1362 - 1369	CBD - A	Jasna/Szkolna streets
1370 - 1388A	Tenement Belt 7	
1388B - 1390C	Koszyki (T.9)	
1391	South-East T.Belt(10)	Marszałkowska Street profile
1392 - 1400	CBD - F	
1401 - 1404	CBD - A	
1405 - 1492C	T.7 (also T-9:1444-'7B)	Zielna, Śliska, Wielka, Sienna sts
1493 - 1496	CBD - F	Chmielna/Złota single plots
1497 - 1517	T.7	Złota St.profile + Sosnowa St.
1518 - 1535	CBD - F	Złota St. + Chmielna St.N.side
1536 - 1558	T.7	Chmielna Street profile in T.7
1559A - 1567	CBD - F	Chmielna St.S.side + Widok St.
1568/9 - '72/3	T.7	Occupied by W-w/Vienna Railr'd.
1574 - 1581	CBD - F	Street Block no.224 + Bracka St
1582BH - '82F	Tenement Belt 9	South side/Jerusalem Avenue
1582G - 1591	Tenement Belt 10	S.Jerusalem Ave/S.Bracka St.
1592	CBD - F	14 Bracka St. (police address)
1593 - 1599I	T.10	E.Nowogrodzka St./Krucza St.
1600A - C(D)	T.9	W.Nowogrodzka St./Toll Gates
1600E - I	T.10	E.Nowogrodzka St./Żurawia St.
1600K, O + S	T.9	Wielka/Marszałkowska st.plots
1600L-N/P-R +	T.10	E.Nowogrodzka-Żurawia-Wspólna
1601 - 1641	T.10	sts.
1642 + 1643	T.9	W.Wspólna Street plots
1644 - 1675	T.10	W.Hoża/Wspólna + Mokotowska sts
1676	T.9	Wspólna Street (police no.2)

(continuation)

land registry numbers	sub-study area	specific location/address
1677/8 - '99	Tenement Belt 10	E.Hoża-Krucza-E.Wilcza streets
1700A - 1700G	Tenement Belt 9	South Marszałkowska St.-W.side
1701A - 1753	T.10	E.Wilcza-Krucza-Wiejska sts.- Ujazdów Avenue
1753ABC - '53E	T.9	"Koszyki" villa grounds
1754 - 1758A	T.10	Marszałk.-Nowowiejska-Krucza- Piękna streets
1758B + C	T.9	Wielka/Piękna streets
1759 - 1763B	T.10	Bagatela/Marszałk.streets
1764 - 1770	Tenement Belt 1	Świętojerska-Nowowiniarska sts.
1771AB - '79	Tenement Belt 3	Św.jerska-Wałowa streets
1780 - '91/2	CBD - B+E	Krasiński Square + Gardens
1793 - 1800	T.3	Franciszkańska-Wałowa streets
1801 - 1812	T.1	Nowiniarska-Franciszkańska sta.
1813 - 1819	T.3	Franciszkańska N.side
1820 - 1826	T.1	Koźła St. - west side
1827 - 1854	Ex-Northern	liquidated (Citadel)
1855/6 - '64	T.1	Zakroczymska-Wojtowska streets
1865 - 1869	Ex-N.	liquidated (Citadel)
1870 - '90/1	T.1	Stara-Kościelna-Przyrynek sts.
1892 - 1910	Ex-N.	Citadel
1911/2 - '27	T.1	Przyrynek-Samborska-Zakątna sta.
1928 - 2045	Ex-N.	Citadel
2046 - 2047	(T.1)	Szymanowska plots - demolish'd after 1871
2048 - 2093	Ex-N.	Citadel
2094 - 2103	(T.3)	Inflancka-Kłopot sts. ; later demolished (1871), except 2098
2104 - 2142	Ex-N.	Citadel
2143 - 2159	(T.3)	Kłopot st.-W.side, liquidated after 1871
2160 - 2165C	T.3	Bonifraterska St.- W.side
2166/7	T.1	Church of the Order of St.John
2168 - 2171	Ex-N.	Citadel
2171A - '71F	(T.1) (?)	liquidated after 1871 (Stawki)
2172 - 2175	Ex-N.	Citadel
2176 - 2181	T.1	Czarna-Konwiktorska streets
2182 - 2189	Ex-N.	Citadel
2190 - 2213	T.3	Muranowska Street (profile)
2214A - '31	(T.3)	Pokorna-Inflancka-Smutna sts. (liquidated after 1871)

(continuation)

land registry numbers	sub-study area	specific location/address
2232A - 2287E (2271A-74B=Niska St.=inOkopowa)	Tenement Belt 3	Nalewki street profile-Dzika-Niska-Miła-Stawki streets
2288 - 2301	Okopowa (T.4)	Gęsia St.-S.side
2302 - 2307D	T.3	Dzika-Stawki streets
2307E - '7H	(T.1)	Stawki wind-mills (liquidated after 187)
2308 - 2320	T.4	Dzika Street - west side
2321 - 2324	T.2 (Leszno)	
2325 - 2339F	T.4	Pawia Street (profile)
2340 - 2353/4	T.2	
2354B - '57	T.4	
2358 - 2488	T.2	Dzielna-Nowolipki-Nowolipie-Karmelicka street profiles
2489 - 2494	T.4	Gęsia-Smocza streets
2495 - 2521	T.2	Wolność-Kacza-Żytnia streets
2522 - 2543	Ex-N.	Citadel
2544 - 2563	T.1 (Nowe Miasto)	Rybaki in tenement belt
2564 - 2584	Powisłe Inner-Periph.	Rybaki- river side
2585 - 2593/4	CBD - C (Stare Miasto)	Rybaki-Bugaj streets
2594AB-2606/7	Powisłe	Rybaki-Bugaj - river side
2608 - 2641	Mariensztat (CBD-D)	Market place + side streets
2642 - 2644	N.Central (CBD-B+E)	Mariensztat in street block 11
2645 - 2666	CBD - D	Mariensztat-Sowia streets
2667A - '68	CBD - B+E	Krakowskie Przedmieście
2669--2672	(CBD - B+E)	Property clearance area (1864), (including plots 371-385)
2673A - '79	CBD - B+E	Bednarska Street profile
2680 - 2687	CBD - D	
2688A - '90	CBD - B+E	
2691 - 2696	CBD - B+E (Powisłe)	Furmańska-Mularska-Browarna sts
2697 - 2725	CBD - D	
2726 - 2737	Powisłe	Wiślana-Browarna streets
2737A - '41	CBD - B+E	Powisłe in street block no.9
2742 - 2764	Powisłe	Wiślana-Lipowa-Radna streets
2765 - '83/4B	CBD-F(Nowy Świat)	Oboźna-Aleksandrija streets
2785A - '94B	Powisłe	Leszczyńska-Oboźna streets
2795 - '98/9	CBD - B+E	Dobra St. (in street block 10)
2800 - 2836	Powisłe	Dobra-Topiel-Zajęcza streets
2837 - '67/8	CBD - F	Tanka - Cicha streets
2869 - 2871	Powisłe	Tanka-below escarpment
2872 - 2904	CBD - F	Wróbla-Szczygła-Ordynacka sts.
2905 - 3063	Powisłe - Solec	Solec-Jerozolimska-Okrag-Smolna Dolna-Czerniakowska-Rozbrat-Górna-Fabryczna-Książęca sts.
2979A - '83a-f	CBD - F	(Upper) Smolna St.

(continuation : Inner-peripheral areas, excluding Powiśle).

land registry numbers	sub-study area/location
3064 - '69ABC	beyond the Belvedere Toll Gates ; addresses unspecified
3070 - 3071N	beyond the Jerusalem Toll Gates (no addresses)
3072A - 3116B	beyond the Wola Toll Gates : Wola High Street Karolkowa St. Młynarska St.                    WOLA (New) Żytnia St.                SUBURB Przyokopowa St.
1317 - 3134C	beyond and inside of the Marymont Toll Gates (liquidated after 1832 for the Citadel)
3135 - 3140	beyond the Powązki Toll Gates (Citadel-demolition)
1 - 19	
20 - 29	beyond the Powązki Toll Gates : Powązki High Street (in Powązki suburb)
1 - 8	PRAGA (Old) : Ząbkowska-Ratuszowa streets
9 - 34	Praga (Old) : liquidated for the French Citadel (in 1806) , together with plot nos. : 99,101,112-'4,124,125,130-'2,135,141,200-'2, 215,256-'67,279,285,302-'8,313-'49,351-'70, 372-'74,382-'4,394-'6,413,421-'7,430-'7, 439-'56,458-'60,462-'91,494-'96,498,499, 502-'26
35 - 145A	Praga-Gołędzinów : liquidated after 1871 for the Russian Citadel Esplanade and Śliwicki Fort
146/7/8-527	Praga (Old) : Targowa High Street Wołowa High St. Aleksandrowska St. Ząbkowska St. Moskiewska St. Zupna St. Sprieczna St. Brukowa St. Szeroka St. Olszowa St. Panińska St. St.Petersburg St. Dębowa St.

Table III:

SUBPARCELLISATION OF BUILDING PLOTS BETWEEN 1852 AND 1869  
(based on H.Świątkowski(1852) and W.Dzierżanowski(1869)  
property counts)

A. EVOLVING INNER-URBAN CORE AND TENEMENT BELT (STUDY AREA)  
(land registry numbers 1 - 2521 and /intermittent/2544-2904)

land registry number	police address (1869)		land registry number	police address (1869)	
<b>CBD-A (BANK DISTRICT)</b>					
409	Count Berg	1 X	1346A-C	: predating 1852	
409A	" "	3 X	1346D	Mazowiecka	6
B	" "	5 X	E	"	8
C	Włodzimierska	12 X	G	"	4
D	"	10 X	1347B,C + D	: pre-1852	
E	"	8 X	1347E	Mazowiecka	12
F	"	6 X	F	"	10
G	"	4 X	1350	"	11
H	"	2 X	1350A	"	9
J	"	5 X	1351A + B	:	
K	"	7 X	1352A + B	: pre-1852	
L	"	9 X	1363A,B+C	:	
M	"	11 X	1363D	Jasna	12
N	"	13 X	1364	"	5
O	"	- X	1364A	"	3
409P	Count Berg	- X	1368A	Szkolna	4
412A - C	: pre-1852		B	"	6
412D	Królewska	3	1369	"	8
412E	"	5	1402B	: pre-dating 1852	
1066A	Erywańska	3	1402C	Marszałkowska	54
B	"	5	D	Marszałkowska	52
C	"	7	1403	"	58
DE	Marszałkowska	9 X	1403A	"	62
FG	Erywańska	2 X			
H	"	- X			
I	"	4			
K	Królewska	25			
L	Erywańska	10			
Ł	"	12			
M	"	14			
N	Królewska	27			
O	"	31			
P	Marszałkowska	66			
Q	Erywańska	8			
R	"	6			
1066S	Królewska	29			
1071A + BC	: pre-dating 1852				
1245A + B	: pre-1852				
	(occupied by the Russians)				
1326	Świątokrzyska	12			
A	"	-			
BC	Włodzimierska	- X			
1327A + B	: pre-1852				

NOTE : addresses denoted "X" signify empty plots (still) in 1869,  
a cross ("+") signifies corner houses/plots

land registry number	police address (1869)	land registry number	police address (1869)
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CBD-B+E (N.CENTRAL)

369A	Krakowskie Przedm.	58	
B	Bednarska	20	
371-385	- urban clearance		
+2669-72	in 1864		
	(Konstantynowski Sq.)		
413A-G	: pre-1852		
413H	Saxon Square	3	
415A	Czysta	3	
471A-F	: pre-1852		
471G	Rymarska	8	
H	"	10	
473A-C	: pre-1852		
473D	Senatorska	29	
476A-D	: pre-1852 + 477A-B		
484A	Miodowa	10	
484B	Podwale	13	
486A-B	: pre-1852		
489A - D	: pre-1852		
494A	(former RC monastery)		
495A	Danielewiczowska	2	
497A - C	: pre-1852		
500A - C	: " "		
543A-B	: " "		
547A-BC	: " "		
549A-B	: " "		
586A-B	: " "		
592A-B	: " "		
599A - C	: " "		
600AB-EF	: " "		
601A-B	: " "		

614A-B	: predating 1852		
614C	Niecała	2	
D	"	6	
EF	"	8	
G	"	10	
H	"	12	
I	"	11	
K	"	9	
L	"	7	
Ł	"	5	
M	"	3	
621/2-3	: City Hall (1818-)		
634A-B	: pre-1852		
638A	Wierzbowa	2	
B	Czysta	6	
C	"	4	
739A-B	: pre-1852		
743A-B	: " "		
1077A - D	: pre-1852 (Graniczna)		
1078A - CD	: " "		
2667A-B	: " "		
2673A-B	: " "		
2678A - C	: " "		
2688A-B	: " "		
2690A-B	: " "		

CBD-C (STARE MIASTO-OLD TOWN)

21/2	: plots merged		
72AB	: pre-1852		X
C	Celna	1	
127A/294	Piekarska	16	
127B	"	11	
215/216C	Bugaj	3	
286/7	Rycerska 15(merged)		
297/8	plots merged		
364-'66	: plots bought up for Pancer's Viaduct		
520	Podwale	22	
520A	"	-	X
B	"	-	
2588	Bugaj	15	
2588A	Brzozowa	18	

CBD-D (MARIENSZTAT BRIDGEHEAD)

2615-2629/30	Źródłowa	5	
2616/7-2635	"	4	
2618-2633	"	2	
2640/1	: demolitions (1843)		
2647A - BC	: pre-1852		
2650A-B	: " "		
2660	: site of Bernadine RC church + convent (Pancer's Viaduct 1843)		
2687A-B	: pre-1852		
2706/7/8/9/10	: plots merged (tannery)		
2716/17/18/19	: plots merged (single property)		

IIIc

(continuation : Nowy Świat-CBD)

land registry number	police address (1869)	
1253	Nowy Świat	49
1253A	Warecka	5
B	"	3
C	"	1
1258A - C	: pre-1852	
1259A - C	: " "	
1259D	Chmielna	- X
E	"	2
1260	Nowy Świat	27
1260A	" "	25
B	Chmielna	1
C	"	5
D	"	3
1256A	Nowy Świat	17
B	" "	15
C	Bracka	12
1298A-B	: pre-1852	
1312A	Nowy Świat	3 +
BC	Ordynacka	6
1319/20/1	: occupied by the Russians(1864)	
1334A-B	: pre-1852	
1345A-B	: " "	
1355A	Szpitalna	3 X
G	Warecka	6
B	Szpitalna	8
E	Warecka	16 +
F	Szpitalna	14
G	"	12
H	"	10
1357	Warecka	7
A	"	9
B	"	11
1358A-B	: pre-1852	
1360/1	: occupied by the tsarist authorities	
1396A	Marszałkowska	40
B	"	38
1520	Złota	7
A	"	5
1522	"	1 +
A	Zgoda	1
1531	Chmielna	24
A	"	22
1559A	Marszałkowska	24
B	"	26 +
1564A	Chmielna	17
B	"	15
C	"	13
1565A - D	: pre-1852	
1566	Widok	10
A	"	12
1567	"	14
A	"	16

CBD-F (NOWY ŚWIAT)

land registry number	police address (1869)	
1574A - D	: predating 1852	
E	Jerusalem Ave.	28
F	" "	30
G	" "	32
H	Widok	11
I	"	13
K	"	15
L	"	17
M	"	19
N	Jerusalem Ave.	26
O	" "	38
1574P	" "	36
1575	Widok	5
A	"	3
1576	Bracka	19
A	"	17
1578	Bracka	2
A	Widok	8
B	"	6
C	"	4
1580AC	Bracka	13
B	Jerusalem Ave.	24
1592	: local police HQ (private property)	
2765A - BC	: pre-1852	
2766A - D	: " "	
2777A-B	: " "	
2779A	Oboźna	1
B	"	5
C	"	3
2782A-B	: pre-1852	
2783/4/5	: plots merged	
2846A - D	: pre-1852	
2874A - C	: " "	
2890	Szczygła	5
A	"	3
2979A	Smolna Górna	9
B	" "	11
C	" "	13
D	" "	15 X
E	" "	7
F	" "	5
G	" "	1 X
H	" "	3
I	" "	-
2982A - AF	: pre-1852	
2982BEG	Smolna Górna	6 X
CI	" "	8
DH	" "	- X
2983	" "	-
2983ABCDEF	: "occupied by the street"	

(continuation : Nowe Miasto and Leszno tenement belt districts)

land registry number	police address (1869)	land registry number	police address (1869)
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T-1 (NOWE MIASTO)

227/8	: plots merged	1822A	Koźła	7
251A	: occupied by the Russians (1864)	B	"	5
279	Freta	1863A - D	: pre-1852	
280	"	1879-1880	: empty plots	
321/2	: plots merged	2176	Bonifraterska	6
1769A - C	: pre-1852	A	Czarna	7
D	Nowiniarska	2178	"	1
E	"	A	"	3
1809A - CD	: pre-1852	2179A	"	4
		B	"	6

T-2 (LESZNO)

657ABED	Leszno	8	2370A-B	: pre-1852	
657C	"	10	2370C	Dzielna	27
670A	"	30	D	"	29
B	Karmelicka	2	E	"	33
671A - C	: pre-1852		F	"	31
673A-B	: " "		2373	"	15
674	Leszno	46	A	"	13
A	"	44	B	"	11 X
693	"	82	C	"	17
A	"	84	2375	"	3
696A	"	88	A	"	1
B	"	90	C	"	7
2340	Pawia	43	D	Karmelicka	12
A	"	49	E	"	10
B	"	47	2376A	Nowolipki	2
C	"	45	B	"	4 } in IV
2341	"	41	2378	"	10
2343	"	35 X	2379	"	12
A	"	37	2383	"	20
2345	"	29	A	"	18
A	"	31	2385A	"	24 X
2347A	"	21	B	"	28
B	"	- X	C	"	30
G	"	23	D	"	-
2351	"	15	2391A -	: pre-1852 (D? E?)	
2351A	"	13	F	Nowolipki	50
2352	"	9	G	"	48
2352A	"	11	2393	"	41
2353	"	5	A	"	43
2358	Dzielna	4	2394	"	35
A	"	6	A	"	37
B	"	8	B	"	39
2360	"	16	2402	"	17
A	"	12	A	"	13
B	"	14	B	"	15
2364	"	20	2403A	: pre-1852	
A	"	22 X	B	Nowolipki	11
B	"	24 X	C	Karmelicka	6
C	"	26 X	D	Nowolipki	13
2369A - D	: pre-1852		2418	Nowolipie	16
2369E	Dzielna	44 X	2419	"	18
F	"	42	2423	"	24
G	"	40	A	Karmelicka	9
H	"	38	B	"	11
I	"	- X	2429	Nowolipie	36
K	"	50	2430	"	38



TRK

(continuation : Leszno(cont.) and Nalewki tenement belt districts)

land registry number	police address (1869)		land registry number	police address (1869)	
(T-2/Leszno/cont.)					
2431	Nowolipie	40	2500A	Wolność	10
AB	Nowolipki	21	B	"	4
2439	Nowolipie	56	C	"	2
2440	"	58	2501	"	15
2444	"	68	A	"	17
A	"	66	2506A	"	3
2453A-B	: pre-1852		2506B	"	5
2456AB	Nowolipie	41	2506C	"	7
C	"	43	2509/10	: plots merged	
2457	"	39	2514	Żytunia	2
A	"	37	A	"	8
2460	"	31	2515	"	6
2461	"	29	A	"	10
2481A-B	: pre-1852		B	"	14
2485	Nowolipki	36	D	"	16
A	"	34	E	"	12
2496	Dzielna	30	2518	"	7
2496/7	"	32	A	"	5
2498/9	: plots merged	X			

T-3 (NALEWKI)

1776A-B	: pre-1852		2269	Niska	- X
1778A - D	: " "		2271A	"	6
1793A-B	: " "		B	"	8
1794A-B	: " "		2272	"	10
1797A - 6	: " "		A	"	12
1796A-B	: " "		2273A - C	: pre-1852	
2162A	Bonifraterska	11	D	Niska	20
B	"	13	2274A-B	: pre-1852	
2191ACD	: plots merged		C	Miła	14
B	: pre-1852		D	"	16
2197A - C	: pre-1852		E	"	18
2207/8	: plots merged		F	"	22
2209/10	: " "		G	"	20
2232A	Pokorna	2	H	"	48
B	"	1	2279	"	17
2236/7A	: pre-1852		A	"	19
2236B	" "		2280	"	15
2240A - C	: " "		2281A - C	: pre-1852	
2244A-B	: " "		2284	Miła	5
2245	Nalewki	19	A	"	1
A	Dzika	18	B	"	3
B	"	20	2286	Gęsia	2
2247A - C	: pre-1852		A	"	4
D	Gęsia	7	2287	"	8
(military school)			A	"	10
2247E	Dzika	26	B	"	12
F	"	24	C	Dzika	28
2248A - D	: pre-1852		D	Gęsia	6
2249	Nalewki	31	E	Dzika	30
A	Dzika	38	2306 + A	: pre-1852	
2251A	Nalewki	35	2307A - C	: " "	
B	"	37	D	Dzika	52
2254	"	34	E	"	54
A	"	32	F	"	60
2255	"	28	G	"	62
A	"	30	H	"	64
2257AB - C	: pre-1852		I	"	66

Okopowa

(continuation : Okopowa and Mirów tenement belt districts)

land registry number	police address (1869)	land registry number	police address (1869)
<u>T-4 (OKOPOWA)</u>			
2171*			
2289/90	Gęsia 61	2313A - G : pre-1852	
2289B	" 63	2313H Niska 3	
CD	" 65	I "	-(brick-
2290	" - X	K "	1 works)
A	" 59	2318 Dzika 15	
B	" 57	A "	17
C	" 55	2326 Pawia - X	
2291	" 53	A " 8(2357A)	
A	" 47	B " 6(2357B)	
B	" 49	C " 10(2357C)X	
C	" 51	2327 " 12	
2293	" 39	A " 14	
2294	" 37	2331A " 30	
A	" 35	B " 28	
2296	" 31	C " 26	
2297	" 29 X	2336 " 44	
2298A	" 27	A " 42	
B	" 25	2337 " 48	
2300A	" 15	A " 46	
B	" 17	2338 " 52 X	
C	" 21	A " 50	
D	" 19	2339 " 54	
2309A	Dzika 45	A " 56	
B	" 43	B " 58	
C	" 49	C " 60	
2910A	" 39	D " 62	
B	" 41	E " 64	
C	" 47	F " 66	
2311A - E : pre-1852		2354B " 1	
2311F	Dzika 35	C " 3	
G	" 37	2489 Smocza 10	
2312	" 33	2491A - E : pre-1852	
2312A	" 4	2492A - C : " "	

\*2171A - F : 5 undeveloped plots (Stawki St.)

T-5+T-6 (MIRÓW)

697A - C : pre-1852		917 Chłodna 47	
697D Leszno 89		A " 45	
698 " 81		B Krochmalna 38	
699A " 75 X		922 Chłodna 35	
B " 77		A Krochmalna 36	
C " 79		926A-B : pre-1852	
701A - C : pre-1852		926C Chłodna 27	
D Leszno 67		927A - C : pre-1852	
794A - C : pre-1852		927D Żelazna 28	
798A-B : " "		E Krochmalna 32	
845 Ogrodowa 48		F Chłodna 13	
A Wronia 25		934 + AB : pre-1852	
B " 27		949A-B : " "	
859 Ogrodowa 47 X		950A-B : " "	
869 " 27 X		956AB + C : " "	
899 Chłodna 42 X		975 Gnojna 9	
903 " 50		A Krochmalna 1 +	
A Wronia 26		991 " 14	
		A Ciepła -	
		992A-B : pre-1852	

(continuation : Mirów(cont.) and Grzybów tenement belt districts)

land registry number	police address (1869)		land registry number	police address (1869)
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(T-5/6=Mirów=cont.)

999A-B : pre-1852  
 999C Grzybowska 64  
 D " 68  
 E " 68  
 1001A-B : pre-1852  
 1001C Wronia 18  
 D " 20  
 E " 16  
 1006 Krochmalna 31  
 A " -  
 B " -  
 1007A Ciepła 8  
 B Krochmalna 29  
 1008A-B : pre-1852  
 1009A-B : " "  
 1013A-B : " "  
 1017A-B : " "

1033A Grzybowska 34  
 B " 36  
 1034A " 48  
 BC " 50  
 1034D " 52  
 1036A " 56  
 1113A Waliców 8  
 B Grzybowska 38  
 1125AB Żelazna 26  
 1137/'8 : plots merged  
 1141A-B : pre-1852  
 1142A Żelazna 27  
 B " -  
 C Grzybowska 44  
 D " 46  
 1173C - E : pre-1852

T-7 (GRZYBÓW)

1054A-b : pre-1852  
 1054C Grzybowska 29  
 1055A - G : pre-1852  
 1055H Grzybowska 25  
 1056 " 11  
 A " 13  
 1065 Marszałkowska 77  
 A " 75  
 B Królewska 35  
 C Marszałkowska 79  
 1083 Grzybów Sq./Bagno  
 1083AB  
 1085A-B : pre-1852  
 1087A-B : " "  
 1087C Mariańska 11  
 D " 9  
 E " 7  
 F " 5  
 G " 3  
 H " 8  
 I " 6  
 K " 4  
 1087L " 2  
 1089A Twarda 21 X  
 B : pre-1852 17  
 C 19  
 D 15  
 1090A-B : pre-1852  
 1090C Twarda 40  
 D " 34 X  
 E " 36  
 F " 42  
 1091A - C : pre-1852  
 D Twarda 31 X  
 E " 33 X  
 F " 35 X  
 G " 37 X  
 H " 39 X  
 I " 41 X  
 K " 43 X  
 L " 45 X

1091M Twarda 47  
 N " 49  
 O " 51  
 1094A " 20  
 B Ciepła 2  
 C " 4  
 D " 6  
 1097 Twarda 14  
 A " 12  
 1098A " 6  
 B " 8  
 C " 10  
 1102 Grzybowski Sq. 14  
 A " 16  
 1103A-B : pre-1852  
 1106A Ciepła 9  
 B Waliców 3  
 1107 Ciepła 10  
 A " 11  
 1192 Pańska 47  
 A " 45  
 B " 43  
 1193 " 41  
 A " 39  
 1195 " 33  
 A " 35  
 1214 " 6  
 A " 8  
 1215 " 10/12  
 A " 14  
 1216 " 18  
 A " 20  
 B Mariańska 11  
 1218A-B : pre-1852  
 1221 Pańska 34  
 A " 32  
 1244A-B : pre-1852  
 1372 Marszałkowska 67  
 A " 69

(continuation : Grzybów (cont.) and Towarowa tenement belt. districts)

land registry number	police address (1869)	land registry number	police address (1869)
(T-7/Grzybów/cont.)			
1381	Marszałkowska 49	1490A	Sienna 9
A	Zielna 12	B	" 11
1388A-B	: pre-1852 (Warsaw-Vienna Railway)	C	" 13
1417	Zielna 9	1492A	" 3
A	Wielka 14	B	" 1 +
1436	" 35	C	" 2
A	Śliska 4	1505A - E	: pre-1852
1440	Wielka 22	1505F	Twarda 53
A	Złota 10	G	Złota 49
1449A-B	: pre-1852	H	Żelazna 5
1455A-B	: " "	I	Twarda 55
1461	Śliska 30	1508	Złota 33
1462A	" 32	A	" 35
B	" 34	B	" 37
1465	" 40	1509	" 29
A	" 42	A	" 31
1467	" 35	B	Sosnowa 1
A	" 37	1510	" 4
B	" 45	1512	Złota 21
C	" 47	A	" 23
D	" 49	1543	Chmielna 48
E	" 39	A	" 50
F	" 41	1544	" 52
G	" 43	1545	" 54
1468	" 33	1549AB - F	: pre-1852
A	" 31	1549G	Chmielna 66
1469	" 29	H	" 74
1470	" 27	I	" 68
1486	Sienna 27	K	Żelazna 3
A	" 25	L	Chmielna 72
B	" 23	1551	" 45
1487	" 19	A	" 47
A	" 21	B	" 49
BC	Sosnowa 6	1556A	" 33
D	" -	B	" 35
		C	" 37
		D	" 39

T-8 (TOWAROWA)

1037	Grzybowska 73	1092C	Sienna 2
A	" 71	D	Zielna 10
1038	" 67	E	" 14
A	" 69	G	" 12 X
1039	" 65	1117	Ceglana 3
A	" 63	1117A	Ciepła 1
1040	" 13	B	" 3
A	" 11	C	Twarda 22
1046	" 51	D	" 24
A	" 49	E	Prosta 2
1047A-B	: pre-1852	F	Ceglana 1
1092A-B	: " "	1118A-B	: pre-1852

(continuation : Towarowa(cont.) and Koszyki tenement belt district)

land registry number	police address (1869)	land registry number	police address
(T-8/Towarowa/cont.)			
1443(A)	Żelazna 25	1176	Pańska 81 X
B	Grzybowska 47	1183	" 69
1147A-I	: pre-1852	A	" 65
AA	Twarda -	1185	" 63
AB	Żelazna 13	A	" 61
K	Twarda 52	1188	Żelazna 15
L	Tenement enclave - X	A	" 16
M	(factory) -	B	Pańska 18
1147N	Łucka - X	1190	" 49
1156	" 18	C	" 51
A	" 20	D	" 53
B	" 10	1191AB	" 28
C	" 22	1227A	" 46
1171A	Wronia 6	B	" 48
B	" 4	1235	" 64
C	" 15	A	" 66
D	" 8	1241	" 72
1172	" 16 X	A	Prosta 7
1173A-B	: pre-1852	1242	Pańska 74
		A	Wronia 3
		1243	Pańska 76
		a	" 78

T-9 (KOSZYKI)

1388B	: pre-1852	1700A	Marszałkowska 21 X
1390A	Marszałkowska 23	B	" 17
B	" 15 +	C	" 19
C	Piękna 13	D	Piękna 16
1582BH,E,G+I	: pre-1852	E	" 22
1582N	Jerusalem Ave. 21	1700G	Marszałkowska 19
1582R	" " 39	1700F	Piękna 20
1582S-T	" " 41-43	1753ABC	(palace : pre-1852)
1600A - C	: pre-1852	D	: pre-1852
D	(brickworks) -	E	: Jerusalem Barracks
E	Nowogrodzka 37 X	1758*B"	: pre-1852
F	" 35	1758C	Piękna 3
G	" 33 X	(1444-1447B : in XI)	
H	Żurawia 28 X	1445	Wielka 13
I	" 30 X	A	" 11
K	" 32	B	" 9
L	Wielka 31 X	C	" 7
M	Żurawia 29	D	" 5
N	" 27	1447A	Marszałkowska 25
O	Marszałkowska 30	B	" 27
P	Wspólna 32 X	1754A-R : administratively coming under "cyркуł"IX (cf.T-10)	
R	" 34	1762 + A : the same applies	
1600S	Wielka 17		

(continuation : South-East Tenement Belt (IX-XIII))

land registry number	police address (1869)	land registry number	police address (1869)
<u>T-10(SOUTH-EAST/IX-XIII)</u>			
1582C,D,D <sub>1</sub>	: pre-1852	1666D	Mokotowska 2
1582C <sub>1</sub>	Jerusalem Avenue 3+	E	Marszałkowska - X
C <sub>2</sub>	" " 33(?) -5	F	" - X
K	" " 23(+)	G	" - X
D <sub>2</sub>	" " 21	H	" - X
D <sub>3</sub>	" " 19	I	" - X
P	" " 15	L	" - X
Q	" " 13	M	" - X
M	" " 11+	1667A-B	: pre-1852
L	" " 9	1680	Hoża 15
1590	Wspólna 2	A	Krucza 6
A	" 4	1694	" 11
1599A-B	: pre-1852	A	" 13
1599C	Nowogrodzka 16	B	Wilcza 16
DF	" 18	1701A-B	: pre-1852
E	Marszałkowska 18	1710/11A	Wilcza 5
G	Nowogrodzka 22	B	" 3
HK	" 20	1712	Krucza 4
1599I	" 12	A	" 2
1618A-B	: pre-1852	1713A	Piękna 3
C	Żurawia 21	B	Ujazdów Avenue 13
D	" 25	C	Ujazdów Avenue 15
E	" 23	1714A-B	: pre-1852
F	" 18	C	Ujazdów Avenue 9
G	" 22	DE	" " 7
H	" 26	1715	" " 5
I	Nowogrodzka - X	A	Marszałkowska 4
K	" 27	1721A	Ujazdów Avenue 4
L	" 25	B	Wiejska 2
M	" 23	C	Ujazdów Avenue 2
N	" 21	1724A - F	: private gardens
O	Żurawia 20	1726AB-C	: pre-1852
P	Nowogrodzka - X	D	Wiejska 3
R	" 29	E	Instytutowa 1/2 X
1618S	" 31	F	Ujazdów Avenue 10
1628	Żurawia 5	G	" " 12
A	" 7	H	Piękna 4
1631A-B	: pre-1852	K	Instytutowa 4
1645A	Hoża 26	1726L	" 6
B	" 28	1726I	" 3
1648	" 20	1730A-B	: pre-1852
A	" 18	1741/2	: plots merged
1654	Wspólna 7	1754A - I	: pre-1852
A	" 5	B <sub>1</sub>	Nowomiejska 13
B	" 3	H <sub>1</sub>	Marszałkowska 11
C	Hoża 10	H <sub>1</sub>	" 9
D	" 8	K <sub>2</sub>	Nowomiejska 7
E	" 6	-L	" 5
1656/7A	St.Alexander Sq. 5	M	" 3
B	Hoża 2	N	" 13
C	" 4	O	Marszałkowska 5
1658	Mokotowska 23	P	" 7
A	Hoża 3	R	" 2
B	Mokotowska 25	1756A	Mokotowska 4
1666A - C	: pre-1852	B	Ujazdów Avenue 6
		C	Piękna 10
		1757A-B	: pre-1852

(KOSZYKI)

land registry number	police address (1869)		land registry number	police address (1869)	
(T-10/IX-XIII/cont.)					
1757C	Krucza	7	1761A	Bagatela	1
D	"	5	B	"	3
E	"	3	1762A	Marszałkowska	3 in XI
1758A-B	: pre-1852		B	"	1
1758C	Piękna	3	1763A	"	2
1760	Bagatela	5	B	Bagatela	2
1759	Wielka	- X			

B. PARCELLISATION IN THE LEFT-BANK INNER-PERIPHERY

land registry number (1852)	(POWIŚLE)	land registry number (1869)
2564A-B		2574A-B
2594A-B		2575A-B
2600a-B		2580/1 : plots merged
2727A-B		2812A-E(FG?) : plots sold by the Polish Bank
2745A-B		2814A-B
2752A-B		2821A-G : Topiel-Dobra-Zajęcza Drewniana sts.(factory and XXX)
2787A-B		2909 + A
2794A-B		2921/2 : plots merged
2800A-B		2929/30A-B : brewery (new plot)
2805A-B		2929A : timber yard (old plot)
2811A-B		2931 + A
2812A-G : "Polish Bank" (X-open storage)		2932 + A
2816A-B		2958AB : plots merged
2911A-B		2998 + A-F : Górna Street
2912A-B		3000A-C : Czerniakowska/Fabryczna St.development
2913A-B		3001A-B : ditto
2916A-B		3013/14
2919A-B		3015/6/7/8 military barracks
2920A-B		3058A-B : Czerniakowska Street
2927A-B		
2929A-C/'30 : Solec Street (timber yard)		
2934A-D : Solec High St.- (bought up by the City)		
2947A-B		
2958A-B		
2960A-B		
2974A-B		
2989A-B		
3008A-C : Military/barracks		
3012A-C : " "		
3041A-B		
3050A-B		

Note: WOLA SUBURB and PRAGA plots (3072A-3116B + 1-527) have been excluded from tables 10,11 and 12 as lying beyond the main study area ; cf table 9.

The Tenement Enclave "behind the Jerusalem Toll Gates" has been included in the said tables, although other new plots laid out beyond the customs wall are summarised - like those in Wola and Praga - in Table 9.

Table IV

NEWLY-DEMARCATED PLOTS AND BUILT-UP PROPERTIES 1869-1875/6\*  
(numbers of apartments and residents recorded in 1882)

land registry number	police address (in 1882)	number of:		land registry number	police address (in 1882)	number of:		land registry number	police address (in 1882)	number of:		
		flats (A)	Residents (B)			flats (A)	Residents (B)			flats (A)	Residents (B)	
<b>CBD-A (BANK DISTRICT)</b>												
408/9	Count Berg-1	13	45 +	408/9K	undeveloped	-	-	1066I	undeveloped	-	-	
408/9A	" " -3	20	106	L	"	-	-	T	Erywańska-4a	22	62	
B	" " -5	4	17 +	M	Włodzimierska-11	10	52	W	" -6	15	66	
C	Włodzimierska-14	22	119	N	" -13	10	2	X	" -6a	3	20	
D	" -12	20	129	O	Count Berga-7	12	14 +	1325A	Świętokrzyska-10	8	25	
E	" -10	19	81	P	" " -9	9	55	B	" -10a	20	35	
F	undeveloped	-	-	R	Włodzimierska-11a	8	43	1346H	" -16	23	89	
G	"	-	-	1066DE	undeveloped	-	-	K	Mazowiecka-6a	2	11	
H	Włodzimierska -4	17	87	FG	"	-	-	1365A	Szkolna-2	12	56	
J	undeveloped	-	-	H	"	-	-					
<b>CBD-B+E (NORTHERN-CENTRAL)</b>												
368	Krakowskie Przedm.-60	3	19	612	Wierzbowa-1	45	188	1078D	Królewska-10	26	57	
368A	" " -60	3	21	612A	Niecała-1	34	201	E	Graniczna-2	1	4	
(B)	Mariensztat-19	10	39	B	Krakowskie Przedm-3	18	69					
413K	Królewska-8½	4	22	E	Count Kotzebue-/	16	91					
				(612C+D undeveloped on new street)								
<b>CBD-C (STARE MIASTO)</b>												
113A	Piwna-7	17	62	178/133	Nowomiejska-2/	22	105 +					
B	" -9	18	95		Wąski Dunaj-2							
(plots occupied by govt. authorities after 1869)				(plots merged after 1869)								

\* Based on tax registers from 1874 + 1877 and the Results of the One-Day Census of 1882



land registry number	police address (in 1882)	A B	land registry number	police address (in 1882)	A B	land registry number	police address (in 1882)	A B
			<b>CBD-D (MARIENSZTAT)</b>					
2613	Garbarska-2	11 62	2624	Mariensztat-2	31 138	2648A	Mariensztat-1	19 85
2613A	-2a	57 210	2624A	Dobra -39	27 135	B	" -1b	19 76
						C	" -1c	26 121
			<b>CBD-F (NOWY ŚWIAT)</b>					
1266/7A	Bracka-8a (+)	17 91	1297L	Foksal (34)	4 13	1566B	Widok-12a	2 26
B	" -8b	8 28	1313A	Nowy Świat-66	7 16(+)	1574F2	Jerusalem Ave.-30	19 82
1266/7	Jerusalem Ave.-16	9 76(+)	B	Ordynacka-8	19 83	H2	Widok-17	17 73
1266/8B	" " -18b	18 86	C	" -6	22 71	RS	Jerusalem Ave.-26	23 120
1289A	Smolna-17	29 175	1354A	Zgoda-6	13 82(+)	1578A2	Widok-2a	14 74
1297 (demolished house)	"	1 9	1493A	" -1a	17 72	2768B	Aleksandryja-21	13 32
1297B	Foksal-(34)	1 15	B	" -1b	13 75(+)	2779E	Obożna-5	13 27
E	"	1 21	1494A	Złota-2	17 85(+)	2874AB	(merged)	79 441
F	"	1 5	B	" -2a	35 146	2982CIB	Smolna-10	8 38
G	"	1 4	1528A	Szpitalna-2	23 94	DH	" -8	14 65
H	"	3 26	1528	Chmielna-14	13 68(+)	EG	" -6	9 34
J	"	2 5	1529	" -16	17 106(+)	(further subdivisions of plot 2982 ensuing after 1882 into 2982BAF, CJ, K, M, as well as 5720 + 6722 (Wysoka St.))		
			1533A	" -28A	22 80(+)			
			<b>T-1 (NOWE MIASTO-II)</b>					
1857B	Mikołajewska Route	62 338	1857	Zakroczymska-15	30 145	2176C	Bonifraterska-4a	19 121
A	" (barracks)	1 11		(private)		2178C	Czarna/Sapieżyńska (1-a)	29 207
			<b>T-2 (LESZNO-III)</b>					
671D	Leszno-30a	7 32	2341B	Pawia-39d	10 30	2343(B)	Pawia-37b	31 148
674B	" -40	30 178	C	" -39c	32 140	2343C	" -37a	26 113
693B	" -76a	1 5	D	" -41a	16 48	2348	" -19	5 25
D	Wronia-36	13 65	E	" -41b	21 93	2348A	" -19a	25 191
E	" -34	2 3	2342	" -39	20 94	2351a	(undeveloped)	
696	" -88	1 133	A	" -39b	11 34	2353	Pawia-5	32 203
			B	" -39a	6 11	2353A	" -7	29 136

*Leszno continued*

land registry number	police address (in 1882)	A	B	land registry number	police address (in 1882)	A	B	land registry number	police address (in 1882)	A	B
2354/54A	Pawia-9	30	183(+)	2386A	Nowolipki-32b	14	58	2442	Nowolipie-62	20	73
2354B	Dzika-1	23	169	B	" -32a	28	130	2442A	Smocza-1	24	67
C	" -3	27	161	C	" -32	25	113	2443A	" 1a	13	42
2359	Dzielna-10	27	152	D	" -32c	40	163	B	" 1b	14	71
2359A	" 10a	10	57	2392A	" -58	17	82	C	" 1c	24	77
B	" 10b	17	79	B	" -56	11	41	2448	Nowolipie-76	17	70
2360C	" 12c	20	70	C	" -56a	18	88	2448A	" -78	30	126
2366	" 34	7	27	2395	" -33	19	117	2453C	" -51	13	64
2366	" 34b	5	21	2395A	" -33a	36	180	Cl	" -51	35	154
2366	" 34d	9	49	2398	" -27a	13	60	D	" -53a	40	196
A	" 34	16	56	2398A	" -27	27	41	2465	" -21	21	116
c	" 34c	1	9	2399	" -23a	8	38	2465A	" -21a	1	2
E	" 34e	8	46	2399	" -25	8	37	2488	Smocza-6	7	25
2370H	" 27	3	18	2400	" -23	7	37	2488A	" -6	13	52(+)
2373D	" 11a	31	165	2400A	Smocza-1d	1	3	2496	" -5a	21	118(+)
E	" 11	18	96	2401	Nowolipki-19	11	39	2496A	Dzielna-32	19	112
F	" 9b	13	74	2401B	" 19a	30	196	2497	" -36	21	75(+)
G	" 9a	33	207	2406	" 3	14	70	2503	Smocza-11	19	74
2374A	" 9	16	62	2406A	" 3a	6	45	2503A	" -11a	21	83
G	" 7b	33	172	2421	Karmelicka-4a	16	67	B	" -11b	14	61
C	Karmelicka-13a	16	82	2421A	" 4b	10	70	C	" -11c	9	45
D	" -15	19	107	B	" 4c	13	65	D	"Przy"okopowa-2	3	20
E	" -17	15	84	C	" 4d	10	44	2510A	Kacza-8	29	117
F	" -19	15	77	2441	Nowolipie-60a	16	90	2515F	Żytunia-8	8	31
2375F	Dzielna-16	13	75	2441A	" 60	17	60	2516A	" -13	43	142
2385E	Nowolipki-30b	28	139	B	Smocza-2b	14	55	2517A	" -9a	1	4
				C	" -2a	13	52	2518A	" -5	3	16
				D	" -2		gardens				
<b>T-3 (NALEWKI-IV)</b>											
2191A	Muranowska-6	8	96	2191H	Pokorna-4	5	12	2197D	Muranowska-28	40	244
B	" -10	41	168	I	" -6	31	248	E	" -30	22	164
D	" -8	31	190	K	" -8	20	120	F	" -32	44	297
E	" -4	8	26	P	Sierakowska	22	108	G	" -34	29	178

Nalewki cont.

land registry number	police address (in 1882)	A	B	land registry number	police address (in 1882)	A	B	land registry number	police address (in 1882)	A	B
(Nalewki cont.)											
2197H	Muranowska-36	22	136	2261AB	Nalewki-14	84	205	2281C			
I	" -38	27	181	C	" 14	45	198	2287E	plots undeveloped		
K	Dzika-52	15	161	2269	Stawki-2	33	169	2307D - I			
L	" -52a	27	147	2269AB	Niska-2a	6	27	2376	Nowolipki-2	23	72/+
2204A	Muranowska-17	18	63	2275/6	Miła-25	19	115	2376A	" -4	14	87
B	Nalewki-34	24	129	2275/6A	" 25	28	143(+)				
2248E	Dzika-36	17	100	B	Dzika-44	36	236				
T-4 (OKOPOWA-V)											
2171A	Stawki-3	9	35	2272BCD	Niska-12a	11	50	2313/18a	Niska-21	9	46
A	" -7	25	121	C	" -12a	13	77	2313A/2	Miła-37a	17	37
A	" -11	9	30	D	" -12a	16	70	A/3	" -39	17	29
A	" -13	15	57	2273F	" -16b	31	178	A/5	" -41	27	116
AA	" -9	21	102	G	" -16c	14	77	A/7	" -32	10	40
A1	" -15	15	93	H	" -18	2	12	A/12	Smocza-24	4	24
A2	" -17	20	84	I	" -14a	7	28	A/17	Niska-19	15	61
A3	" -19	29	132	2290D	Gęsia-55	12	48	A/21	Nowokarmelicka-2	17	86
AC	Wołyńska-22	20	76	E	" -59	15	65	AB	"Nowo"Miła-33	10	248
B2	Nowo-Wołyńska---	13	70	2294B	" -33b	8	45	AB	Nowokarmelicka-1a	20	92
B4	" -	2	14	2295AB	" -31	121	521	AB/1	Dzika-27	16	82
B5	" -	19	95	E	" -31	11	54	AB/2	Miła-37d	4	17
B6	" -	18	63	2299	" -21	50	358	AB/2a	Nowokarmelicka-5	16	67
C	Wołyńska-24	33	152	2299	" -21a	60	356	AB/3	Miła-29	21	157
BC	" -20	18	83	2300C	(undeveloped)	-	-	AB/3	" -29a	37	242
CC	" -18	17	75	2309A	Dzika-45	51	254	AB/4	" -31	4	23
CD	" -16	14	80	B	Powązkowska-43	2	8	AB/6	" -36	11	43
CE	" -14	15	77	C	(undeveloped)	-	-	AB/7	Dzika-29a	39	232
D	Stawki-23	21	86	D	Zaokopowa-17	1	8	AB/7	Miła-37b	20	100
E	" -1	8	44	E	" -49	21	13	AB/8	" -35	31	173
F	" -21	30	111	F	Dzika-43a	2	8	AB/10	Dzika-29	26	158
G	Smocza-18a	9	37	2311B/2	Stawki-6	23	60	AB/11	Miła-37c	61	311
H	" -18b	19	62	H	" -4	3	17	AB/13	" -37	21	147
I	Stawki-5	16	65	2311A, D, E	(undeveloped)	-	-	AB/31	-27	21	130
K								AB/31a	Niska-3	43	237
O											

III  
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land registry number	police address -in 1882-	A	B	land registry number	police address	A	B	land registry number	police address -in 1882-	A	B	
<b>-Towarowa cont.-</b>												
1147D/8	Witkowski Square-3	15	73	1147P	Twarda-50	5	27	1224A	Pańska-38	20	81	
D/9	" "	21	111	1148A	Żucka-2a	1	5	1230A	" -54a	53	219	
D/10	" "	4	20	B	" -2b	26	103	1243B	" -76a	15	71	
D/13	" "	8	25	C	" -2c	32	121	1549T	Twarda-49	1	3	
D/24	Twarda-40a	11	91	1170A	Prosta-14a	2	11	W	" -51	40	174/+	
1147EAL	Srebrna-14	2	24	1176	developed after 1869	30	111	X	" -47	30	85	
F	Okopowa-1+	47	189	A	Pańska-77a	12	59	1550A	Chmielna-53	29	126	
K/3	" "	32	177	1185B	" -59a	11	52	B	" -51	16	95	
L	-developed > 1869	10	51	1187A	Żelazna-15a	29	156	D	" -57	18	85	
Z	Miedziana-14	12	54	1188B	: plot undeveloped	-	-	E	" -47	9	46	
								C	" -55	36	118	
<b>T-9 / KOSZYKI-POMOLOGICAL-XI/</b>												
1390D	Piękna-31	1	9	1582E/1	Jerusalem Avenue-33	22	92	1700G	Marszałkowska-19	13	71	
F	Wilcza-17c	15	73	E/4	" "	-45	1	6	F	Piękna-48	21	114
H	Marszałkowska-21a	11	32	E/5	" "	-47	40	132	H	" -44	1	8
I	Wilcza-17d	11	52	E/6	" "	-49	2	22	I	" -42	10	47
1444-A?	"Nowo" Wielka-15	19	98	E/10	" "	-57	2	8	K	" -40	6	30
B	Hoża-30a	14	66	E/14	" "	-65	2	9	L	" -32	103	436
G	" -30b	11	47	E/15	" "	-67	2	6	M	" -34	30	78
1445C/1	Leopoldyny-4	5	24	E/18	" "	-73	2	4	N	" -38	75	335
C/2	Hoża -34	18	84/+	E/25	" "	-87	57	226	1700P	" -36	37	111
C/3	Leopoldyny-13	1	5	E/26	" "	-89	4	19	1754E	Kaliksta-2	1	4/+
C/4	" -15	7	26	E/3a	" "	-35	7	22	F	Nowowiejska-12	1	95
"C"	" -11a	8	42	E/37	Składowa-4	1	9		F1	" -14	1	11
C/5	Hoża-36	24	148	1582G/2	"behind the Toll Gates"	8-30			XW	Marszałkowska-13a	6	30
C/7	"Nowo" Wspólna-33	11	53	EF	Jerusalem Avenue-111	7	24	1754Z	" -7b	4	37	
C/8	Wspólna-35	17	77	1600	" "	-4	28	1758D	Wilcza-30	9	57	
1445E	Hoża-33	12	56	A/1	Nowogrodzka--	4	31	E	" -32	1	3	
F	Leopoldyny-1	8	25	D/5	" -36	10	46	F	" -34	6	20	
H	" -5	12	64	LP	" --	1	3	G	Piękna-50	21	76	
I	" -9	27	131	1642A	Hoża-22	9	48	H	Wilcza-60	7	49/+	
K	" -3	9	35	1676A	" -28	17	59	K	" -38	12	34	
L	" -7	6	29	B	" -24	18	105	P	" -21	22	97	
M	Hoża-23	4	58	C	" -26	7	41	R	" -30c	1	5	
								S	Piękna-52	11	37	

land registry number	police address -in 1882-	A	B	land registry number	police address	A	B	land registry number	police address -in 1882-	A	B
				T-10 / ALEKSANDRYJSKA-UJAZDÓW-XIII /							
1271A	Bracka-4	20	126	1649A	Hoża-12c	23	132	1693A	Krucza-2	15	63 /+ /
B	" -4a	23	92	1650A	" -12d	19	53	B	" -2e	10	52
1272A	" -2a	22	74	1651/2A	" -12a	17	85	1697A	Wilcza-22a	15	74
1582C/3	Jerusalem Avenue-5a	10	53	B	" -12b	22	99	1701D	Marszałkowska-6a	11	45
C/4	Krucza-10a	14	69	C	Wspólna-11a	38	197	E	" -6b	30	113
K	Marszałkowska-20	8	47	1654F	Hoża-10a	14	76	F	" -6f	22	95
1599K	Nowogrodzka-18	23	102	H	Wspólna-7a	18	83	G	Piękna-24	2	4
L	" -20b	21	109	1655A	" -1	17	82	K	" -18	10	51
1608B	" -3	33	160	1658B	- undeveloped plot			1702A	Wilcza-15a	19	79
1614A	Krucza-12	20	126 /+ /	1666E	- developed after 1869	15	82	1704A	" -13a	23	105
B	Żurawia-12a	17	78	F	- developed after 1869	16	83	1713D	Piękna-1d	23	105
1618BB	developed after 1869	18	86	G-M	: undeveloped plots	-	-	F	" -1f	2	16
I	Żurawia-27a	30	165	O	Mokotowska-1a	8	29	1714F	Róż Avenue-4	3	3
P	-undeveloped plot			R	" -1d	7	34	P	" " -14	3	8
S	Nowogrodzka-21a	13	76	W	Koszykowa-21	6	19	G	" " -3	3	12
T	Żurawia-27	14	94	X	Marszałkowska-4a	2	18	J	" " -5	1	16
U	Wspólna-34	21	112	1666Z	Mokotowska-1a	9	51	K	" " -6	2	13
W	" -32	35	106	1671A	Ujazdów Avenue-21	6	27	L	" " -8	10	41
X	" -30	23	100	1673	Mokotowska-16	9	46	N	" " -9	2	3
Z	" -28	20	98	1677/8	Marszałkowska-10	7	15	1726E	- undeveloped plot		
1621A	Żurawia-15a	11	69	1679B	Krucza-13a	18	75	M	Wiejska-1	28	85
1638A	Krucza-8	18	64	C	Hoża-17c	3	10	N	Piękna-2a	13	68
1639A	" -13a	15	86	D	" -17d /+ /	9	15	O	Wiejska-1a	23	131
1641A	Wspólna-26	16	75	E	" -17e	20	103	1756D	Mokotowska-6	11	51
1644A	" -23	13	62	F	Krucza-13bb	18	88	1757F	Krucza-1a	17	91
B	Hoża-18a	32	149	1690A	Wilcza-6a	13	67	K	Piękna--/open land/1	22	22
1647A	" -14a	26	114					1763C	Bagatela-6	4	15
1649	Wspólna-13a	24	96					2915C	Solec-57	32	148
				POWIŚLE INNER-PERIPHERY				D	" -57	42	267
2821A	Topiel-14	13	58	2821G	Drewniana-4	5	24	2929BC/30	Czerniakowska-80	6	45
B	" -6	16	86	H	" -8	24	80	B/30	Solec-31	38	259
B	Dobra-10	8	34	J	Topiel-12b	17	90	2989C	Rozbrat-26	34	200
C	" -8	14	44	K	Leszczyńska-9	8	25	3001BD	" -8 /+ /	5	27
D	" -6	18	92	L	Topiel-12a	19	82	3041B	Ludna-4	21	92
E	" -11	3	14 /+ /	2827A	Zajęcza-6	28	169	3058C	Czerniakowska-13	18	51

Table V :

NEWLY-DEMARCATED PLOTS AND BUILT-UP PROPERTIES 1876/7-1882  
(according to the 1882 One-Day Census)

Land registry numbers	address (*police* numbers taken from 1901, 1915 or present day)	number of:		district/ sub-study area
		apartments	residents	
1	2	3	4	5
5000	Srebrna(6)/Miedziana(2)	12	57	T-8 (VI)
5001	Srebrna(8)	12	13	
5002	Krochmalna(87)	8	37	Wola Suburb
5002A	Krochmalna(87)/Karolkowa(50)	40	74	
5003	Krochmalna(85)	10	45	
5004	Krochmalna(83)	16	21	
5005	Krochmalna(81)	12	69	
5007	(Przy)*Okopowa*(47)	8	33	
5009	Przyokopowa(43)	6	52	
5010	Miła(47)	38	234	T-4 (V)
5012	NowoWspólna(77)	9	39	T-9 (XI)
5013	NowoWspólna(69)	12	51	
5015	Hoża(78)	50	218	
5016	Hoża(76)	5	32	
5017	Hoża(74)	20	90	
5018	Żytnia(31?)	1	15	Wola Suburb
*5027	*Koszyki*(Koszykowa-32)	2	6	T-9 (XI)
5029	Piękna(37)	7	23	
5029A	Piękna(35)	3	12	
5030	Piękna(33)	82	321	
5031	Piękna(31)	40	161	
5031A	Piękna(29)	5	16	
5033	(nowo)Wilcza(53)	10	78	
5034	(nowo)Wilcza(59)	26	95	
5035	*Koszyki*(Koszykowa-52; later 5426)	11	69	
5035	Wilcza(73)	19	74	
5036	Wilcza(75)/Koszykowa(54)	2	11	
5036A	Wilcza(79)/Koszykowa(58)	6	19	
5037	Nowokarmelicka(19)	23	107	T-4 (V)
5038	Miedziana(16)	11	61	T-8 (VI)
5039	Wołyńska(23)	51	248	T-4 (V)
5040	Wołyńska(21)	24	173	
5041	Wołyńska(19)	27	124	
5042	Wołyńska(17)	26	130	
5043	Wołyńska(15)	20	78	
5044	Wołyńska(13)	22	105	
5045	*Koszyki*(Koszykowa-31)	5	45	T-10 (IX/XIII)
5046	*Koszyki*(Koszykowa-33)	4	22	
5048	Mokotowska(25)	12	34	
5049	Marszałkowska(38)	48	192	
5051	Srebrna(14)	5	21	T-8 (VI)
5052	Wronia(4)	14	54	
5053	Wronia(6)	6	37	
5054	Miedziana(5)	25	118	

\* cf. 5019, 5020 + 5021 (Jerusalem Ave. 33, 31 + 29) under 5088,



(continuation)

1	2	3	4	5
5057	Żurawia(45)	24	123	T-9 (XI)
5058	Wronia(10)	7	29	T-8 (VI)
5061	Srebrna(12)	3	8	
5062	Srebrna(10)	3	19	
5067	Wołyńska(11)	48	271	T-4 (V)
5068	Karolkpwa(32)-Okopowa(17/19)	3	16	T-2 (III)
5069	Miła(60)	5	20	T-4 (V)
5070	Miła(62)	1	6	
5071	Nowolipki(64)	31	146	T-2 (III)
5072	Nowolipki(62)	30	129	
5073	Nowolipki(60)	41	186	
5076	(Tarczyńska-24)	3	9	Tenement Enclave
5077	(Raszyńska-3/Tarczyńska-5)	21	76	
5078	(Belwederska 8)	7	25	Powisłe-Sielce
5079	Smocza(4)/Glinki(2)	2	16	T-4 (V)
5080	Smocza(39)/Glinki(1)	48	160	
5081	Glinki(4)	9	38	
5082	Glinki(37)	18	68	
5087	(Raszyńska-6/Tarczyńska-1)	15	71	Tenement Enclave
5088	Krucza(12)	20	97	T-10(IX/XIII)
5019	Jerusalem Avenue(33)	23	109	
5020	Jerusalem Avenue(31)	9	48	
5021	Jerusalem Avenue(29)	24	114	
5089	(Grójecka-13/Daleka)	15	57	Tenement Enclave
5090	(Tarczyńska-23)	6	16	
5090A	(Tarczyńska-25)	3	16	
5091	(Tarczyńska-19)	24	97	
5092	"Okopowa"(Towarowa10/Srebrna-15):29-128			T-8 (VI)
5097	"Przyokopowa"(Polna-26)	1	4	T-9 (XI)
5098	"Przyokopowa"(Polna-28)	4	16	
5100	(Raszyńska-12)	4	23	Tenement Enclave
5103	(Tarczyńska/Daleka)	24	65	
5104	Wspólna(40)	23	144	T-10(IX/XIII)
5105	Wronia(12)	7	38	T-8 (VI)
5106	Hoża(47)	6	28	T-9 (XI)
5109	Leopoldyny(12)	34	147	
5110	Leopoldyny(10)	2	9	
5112	Miedziana(14)/Sienna(92)	49	432	T-8 (VI)
5113	Złota(74)	33	187	T-7 (VIII)
5114	Złota(72)	1	4	
5119	Złota(60)	38	225	
5120	(Tarczyńska-22)	16	81	Tenement Enclave
5133	(Grójecka-11/Daleka-12)	6	33	
5136	Litewska(12)	36	195	T-10(IX/XIII)
5137	Litewska(10)	6	36	
5138	Litewska(8)	5	22	
5140	Litewska(4)	17	89	
5141	Szuch Avenue(15)/Litewska(2)	10	44	
5148	Marszałkowska(20)-"newly-built"	2	9	
5151	Marszałkowska(14)	3	27	

(continuation)

1	2	3	4	5	
5152/3	Szuch Ave. (13)	2	2	]—T-10 (IX/XIII)	
5155	Marszałkowska (4)/Szuch Ave. (3)	11	35		
5156	Ceglana (5)	11	39	T-8 (VI)	
5163	Miła (56)	6	25	T-4 (V)	
5164	(Tarczyńska-24)	16	63	Tenement Enclave	
5167	Miedziana (11)	22	88	T-8 (VI)	
5172	(Belwederska-6)	2	2	Powisłe-Sielce	
5173	(Tarczyńska-6)	5	29	Tenement Enclave	
5175	Wilcza (57)	10	49	T-9 (XI)	
5176	{Grójecka-17}	7	34	] Tenement Enclave	
5177(h?)		{Grójecka-19}	8		32
5179		{Grójecka-15}	5		20
5181	Wilcza (63)	2	10	T-9 (XI)	
5184	Złota (68)	4	11	T-7 (VIII)	
5188	Witkowski Square (6)	7	22	]—T-8 (VI)	
5190/1	Twarda (64/66)	39	160		
5192	Czerniakowska (179?)	9	41	] Powisłe-Solec	
5193	Rozbrat (6?) also 3003/5233	8	59		
5210/11	Przemysłowa (31/3)	6	16		
5216	Przemysłowa (36)	10	47		
5217	Przemysłowa (34)	8	44		
5218/19	Przemysłowa (30/32)	3	7		
5228	Przemysłowa (12)	14	74		
5233=5193		-	-		
5234	Miła (40)	15	93	T-4 (V)	
5236	Wronia (11)	1	3	T-8 (VI)	
5238	Leopoldyny (33)	20	81	T-9 (XI)	
5239(B)	Wspólna (42)	27	166	]—T-10 (IX/XIII)	
5240	Wspólna (44)/Marszałkowska (82)	26	132		
5241	Krochmalna (50)/Żelazna (73)	38	195	T-5/6 (VII)	
5242	(Raszyńska-14/Tarczyńska-9)	15	48	Tenement Enclave	
5244	Złota (76)	2	22	T-7 (VIII)	
5256(J)	(Grójecka-21)	1	2	Tenement Enclave	
5264	*Koszyki* (Koszykowa-67) (or 5246-Koszykowa 36 + 52 ?)	35	151	T-9 (XI)	
5272	Srebrna (2)	30	69	(T-9/XI; (+ 84 soldiers)	
5275	Fabryczna (8)	21	76	] Powisłe-Solec	
5276	Fabryczna (6)	20	75		
5283	(Grójecka-3)	10	37	Tenement Enclave	
5287	Wspólna (21/23)/Krucza (31) (later separated from 1650)	34	146	T-10 (IX/XIII)	
5288	*Przyokopowa* (Polna-36)	2	9	T-9 (XI)	
5293	Róż Avenue (16)	1	7	T-10 (IX/XIII)	
5295	Fabryczna (18/20)	44	205	Powisłe-Solec	
5299	Instytutowa (10)	6	38	T-10 (IX/XIII)	

Table V :

NEW PLOTS DEMARCATED PRIOR TO 1882 AND DEVELOPED IN 1882-1915\*

land registry number	address (*police numbers taken from the 1887, 1897, 1901 or 1915 property registers)	approximate period/date of construction	district/sub-study area
5006	Krochmalna/ (secondary developm't)		Wola
5007	Przyokopowa sts.		Suburb
5011	Miła 49 (tenement outbuildings)	1890s	T-4(V)
5014	Wspólna 67 (tenement)	c.1900	
5022	Marszałkowska 61 (corner house)		
23	Koszykowa 26/28	1890s	
24	" 30 (tenements)		
25	" 32		T-9(XI)
26	" 44 (tenement)	post-1897	
5028	Piękna 39 (corner house)	1890s	
5050	Marszałkowska 36 (tenement)	1890s	
5055	Miedziana 3 (tenement)	1890s(?)	T-8(VI)
5056	Wspólna 52 (tenement)	post-1901	T-9(XI)
5059	not located	(undeveloped?)	-
5060	Kaliksta 15 (medium-house)	1880s/90s	T-9(XI)
5063/4	Wołyńska 3/5 (small house + service)	1880s	
5065	Wołyńska 7 (tenement)	1890s	T-4(V)
66	" 9 (tenement)	1890s	
5074	Industrial property-Tamka St.	1890s	Powisłe
5075	Tenement Enclave (Tarczyńska 24)		
5083-5085	Not located (developed after 1901?)		
5093	Dzika 55 (medium-house + service)	1880/90s	T-4(V)
94	Dzika 57,59 (undeveloped)		T-4(V)
95	" 63 (post-1901)		
96	Okopowa -(?) (undeveloped?)		
5099	Okopowa -(?) (undeveloped?)		
5101	Tenement Enclave : Tarczyńska 13,21		
2			
5107	Hoża 49 (back-tenement + gatehouses)	1880s	
8	Hoża 63 (corner house)	1890s	T-9(XI)
5111	Leopoldyna 8 (tenement)	post-1897	
5115	Wilcza 66 (tenement)	post-1897	
16	" 68 (corner house)	post-1897	
5117	Nowokarmelicka 10 (secondary dvlpmt.)	1880s/90s	T-4(V)
5118	Krochmalna 55 (tenement)	1880s/90s	T-6(VII)
5121-5132	Not located (undeveloped?)		
(+)5134	Marszałkowska 24 (medium-house)	1890s	
35	Litewska 14 (military property)	1880s/90s	
39	" 6 (tenement)	1880s/90s	
42	" 1 (corner plot, undvlpd.)		
43	" 3 (tenement)	1880s/90s	T-10(SE)
44	" 5 "	"	
45	" 7 "	"	
46	" 9 "	"	
47	" 11 "	"	
5149	Marszałkowska 18 undeveloped plots		
50	" 16		
5154	Szuch Avenue 15 (villa)	1880s/90s	
5157	Ceglana 7 (tenement, dvlpd. in 2 phases)	1880s	T-8(VI)
5158/9(1897)-redeveloped	: 5158 (Hoża 47) 1901		
	5159 (" 45) (NEW		
	(new plot) 6344 (Hoża 49) c.1904 TENEMENT		
5160	Hoża 35 (after 1897 no.43)	1890s DVLPMT.	T-9(XI)
61	Wielka 15 (tenement)	1890s	
62	" 13 (tenement)	"	
5165	Krochmalna 53 (tenement)	1880s/90s	T-6(VII)

\* according to tax registers from 1887, 1891, 1893, 1897 + 1901

land registry number	police address	period of dvlpmt.	district/sub-study area
5166	Miedziana 13	1880s/90s	T-8(VI)
5168	Tenement Enclave; 2nd.dvlpmt.	1880s/90s	
5169+5170	Undeveloped (Wola-Gzyste suburb)		
5171	" (Sielce suburb-Belwederska)		
5174	Wilcza 55 (tenement)	1880s/90s	T-9(XI)
5178	Krucza 8 (tenement)	1880s/90s	T-10(SE)
5180	Wilcza 61 (tenement)	1890s	T-9(XI)
5182	Marszałkowska 2 (corner house)	1890s	
5183	Mokotowska 39 (tenement)	1890s	T-10(SE)
5185	Twarda 43 (wooden bld'ng)	1890s	T-7(VIII)
5186	Miła 36 (tenement)	1890s	T-4(V)
5187	Witkowski Sq.4 (tenement+corner, 1890s)		T-8(VI)
5189	Towarowa 6 (tenement)	1880s/90s	
5194-5209	industrial		
5212-5215	Przemysłowa open storage	1880s—	Powisłe
5220-5227	(new street, 1878) residential		(Solec)
5229-5232			
5235	Kacza 21(?) (tenement) post-1901		T-2(III)
5243	Złota 78 (corner house) 1890s		T-7(VIII)
5245+A	Tenement Enclave (Grójecka 23, post-1901)		
5246	Koszykowa 36, later 52 (tenement) 1890s?		T-9(XI)
5247	Muranowska 8 (corner house) 1890s		
48	" 6 (tenement) "		
49	Przebieg 3 (tenement outbuildings)*		T-3(IV)
50	Bonifraterska 29 (2nd.dvlpmt. 1880s—)		
51	" 31 (corner house) 1890s		
52			
53	Esplanadowa 3-7 (horse tram terminus, 1880s)		
54	-also no. 2191 FMNO-		
5255	Krucza 6 (tenement) 1890s		T-10(SE)
5257	Tenement Enclave (Tarczyńska 11)		
5258	Kaliksta 8 (frontal tenement, 1890s)		
59	" 12 (tenement) post-1901		
60	Polna 66 (tenement) post-1908		
61			
62	not located (in Koszyki district)		
63	Koszykowa 43 (corner house) 1890s/1900		T-9(XI)
65	" 53 (tenement) 1890s		
5266/5744	Koszykowa 53/65 (Koszyki Market Hall, 1908)		
5267	" 57 (tenement) 1897-'99		
68	Polna 76 (tenement) " - "		
69	" 74 (undeveloped) -		
5270	Miedziana 2 (corner plot, semi-dvlpmt.)		
71	" 6 (tenement) 1890s		T-8(VI)
(5272)	Śrebrna 2 (tenement; privatised after 1882)		
5273	Miła 54 (semi-developed plot, 1880s/90s)		T-4(V)
5274	Fabryczna		Powisłe
5277	Marszałkowska 10 (undeveloped)		
78	Szuch Avenue 9 (tenement-wealthy) 1898-1900		
79	7 " - " ditto		T-10(SE)
80	5 (villa) ditto		
5281	Miła 53 (tenement) 1890s		
82	" 55 (corner house) 1890s pre-'97		T-4(V)
5284+5285	Not located		
5286	Krucza 29 (corner house) 1890s/90s		T-10(SE)
5289	Polna 34 (tenement) 1890s		
5290	Mokotowska 1 (corner house) post-1901		T-9(XI)
5291	Składowa 3 (tenement) 1890s		
5292	Tenement Enclave (Grójecka 3)		
5294	Jasna/Zielony Sq.6 (plutocrat's residence, 1880s)		CBD-A
5296+5297	Fabryczna 22 + 24/Rozbrat 20 pre-1897		Powisłe
5298	Tamka 1; subdivided after 1900		Powisłe

Table VII

NEWLY-DEMARCATED PLOTS AND BUILT-UP PROPERTIES c.1882-1901\*

land registry number	location/address (police nos. from 1887-97 or 1901-15)	land registry number	location/address
5300 -	Marszałkowska 12 (T-10)	5452+5457	Powisłe
5301-3	" 45,43,41 (T-9)	5453	Wola Suburb
5304	..... T-9	5454-55	Nowogrodzka 70,72 : (T-9)
5305-7	Wilcza 65,67,69 (T-9)	5456	Polna (+) " "
5308	..... T-4	5458-68	HRUBIESZOWSKA STREET (Wola, laid out <1882, nos. 1-12, private road : J.Goldszmit)
5309	Marszałk.95 (T-9)	5469.	Wola Sub.
5310	..... T-4	5470-71	T-10
5311-13	not located	5472-76	- Waliców 1-9 (T-8) ↓
5314	..... T-4	5477-78	-(Piękna-Marszałk.-T-10)
5315-19	not located	5479	Wola Suburb
5320	CBD-F	<u>5480</u>	..... T-10 <span style="float: right;">PLOTS DEMARCATED TO 1890</span>
5321-23	not located	5481+5483	Wola Suburb
5324	tenement enclave	5482	Powązki Suburb
5325-26	not located	5484	..... T-9
5327	..... T-4	5485-86	Wola Sub.
5328-29	not located	5487-88	T-9
5330-33	- Mokotowska 22,24 + 26:(T-10)	5489-93	- Wspólna 59,61,63a,63b (in T-9)
5334	not located	5494	..... T-4
5335-52	tenement enclave (incl.2nd.development)	5495	T-1
5353	..... T-10	5496-97	- Krochmalna 71,75(T-6)
5354-55	- Nowogrodzka 97 + a (institutional, T-9)	5498-5503	- Towarowa 64,62,60, 58,56,54 (in T-6)
5356-57	- Chmielna 130 + 132 (T-8)	5504-5	- Grzybowska 84,82 (T-6)
5358-59	Wola Suburb	5506+5011	Wola Suburb
5360-61	- Belwederska (Sielce Suburb)	5507	..... T-10
5362	..... T-8	5508-9	T-9
5363-64	- Stawki 61,63 (T-4)	5510	..... T-8 (semi-dvlpmt.)
5365-67	- Mokotowska 31,29 (and) Koszykowa 14a (T-10)	5512+5515	T-4
5368-75	- NOWODZIKA STREET (in T-4) (laid out c.1890: nos.8-2 + 1-9)	5516	Wola Suburb
5376-93	- NOWOWOLSKA STREET (c.1890-Wola Sub.)	5517	not located
5394	..... T-10	5518-22	- street blocks 261+2 (in T-9)
5395-97	Wola Suburb	5523	Wola Suburb
5398-5417	PARYSOWSKI SQUARE and environs (T-4, laid out after 1890, Parysowska, Szczęśliwa sts. partial dvlpmt.-1915)	5524	..... T-9
5418-19	T-8	5525-26	- Żurawia-Marszałk. (T-10)
5420-22	Wola Suburb	5527-28	- Wspólna-Marszałk. (T-9)
5423	not located	5529	not located
5424-27	T-10 (Koszykowa + environs)	5530	T-8
5428-32	Wola (Młynarska)	5531-32	- Wspólna 47a,47 (T-9)
5445	..... T-4	5533-34	not located
5446-49	Wola Suburb	5535-36	- Marszałk.32,34 T-10
5450-51	- Towarowa,Wola side	5537-39	- Mokotowska 21,23,33
		5540-41	- Koszykowa 34,40 (T-9)
		5542	..... T-8
		5543-52	not located
		5553	..... T-4
		5554-56	not located
		5557-58	- Szczęśliwa 1,3 (T-4)
		5559-60	- Koszykowa 17,11 (T-10)

\* according to tax registers from 1887,1891,1893,1897 + 1901

land registry number	location/address (1887-97/1901-15)	land registry number	location/address
5561-'62	Wilcza 51,57a (T-9)	5654	..... (T-8)
5563-'65	Koszyk, Nowow. (T-10)	56	..... (T-7)
5566	..... (T-8)	5657-'58	not located
5567-'70	Marszałk.+ Wilcza (in T-10)	5659-'60	Młocińska 4+10 (T-4)
5571	not located	5661	Sielce Suburb
5572+5574	(T-10)	62	..... (T-9?)
5573+5575	(T-9)	5663+5664	(T-4)
5576	..... (T-4)	5665-'66	Powiśle
5577-'78	Koszyk.17,15	5667	Nowosenatorska 8 (tenement infill in CBD-E)
5579	..... (T-10)	5668	Sierakowska 2 (demolition of former palace)
5580	.....	5669-'71	Wielka-Wilcza-Wspólna (in T-9)
5581-'82	not located	5672	Powiśle
5583	Wola Suburb	5673-'74	Piękna 41,43
5584-'85	Żelazna 14,16 (T-9)	5675	..... (T-10)
5586 + A	Wola Suburb	76	..... (T-4)
5587-'88	Karmelicka 5,5A (T-2)	77	..... (T-8)
5589	..... (T-9)	5678+5679	(T-3)
5590	..... (T-4)	5680	Wola Suburb
5591+5593	not located	81	..... (T-6)
5592, '94 + '95	(T-9)	82	..... (T-7)
5596	Solec-Powiśle	5683-'84	not located
5597-'98	(T-7)	5685-'86	Żelazna 39,37 (T-8)
5599	..... (T-8)	5687-'88	(Sienna, Towarowa)
5600-'2	Wspólna 49a,49b,49c (T-9)	5689	..... (CBD-F)
5603	Tenement enclave	5690	..... (T-4)
5604	..... (T-9)	5691-'92	Kaliksta 5,3 (T-9)
5607+5612-'15	: KAPUCYŃSKA ST. (new street after 1900)	5693-'4 + 5697	(T-4)
5608-'9	Nowiniarska 2,4 (T-1)	5695-'96	Dzielna 81,79 (T-2)
5610-'11	not located	5698	..... (T-8)
5616	Wola (post-1901)	5699-5708/1713H	: CHOPIN ST. (ul. "Szopena") 1890/91, nos.19,17,16,14,12,10,8, 6,4 + 2, in T-10)
5617-'21	Nowowiejska, Mokotowska, Piękna (T-10)	5709	..... (T-4)
5622-23	Instytutowa 9,7 (T-10)	5710	not located
5624-'26	(T-9)	5711-'13	Koszykowa 63,61,59 (T-9)
5627	..... (T-7)	5714	..... (T-7)
5628	Wola Suburb	15	..... (T-10)
5629	..... (CBD-B+E)	16	Wola Suburb
5630	..... (T-9)	5717-'18	not located
5631-'33	Foksal 13,15,17 (CBD-F)	5719	Foksal 19 (CBD-F)
5634	..... (T-9)	5720-'21	Krucza 43,41 (T-10)
5635-'36	Solec-Powiśle	5722	Żurawia 18
5637-'39	not located	5723-'25	Wronia 7,5,3 (T-8)
5640-'45	: KUPIECKA (new) ST. (north side, nos.18,16,14,12, 10,8 - T-3) c.1897	26-'27	Towarowa - st.block no.135
5646	Kupiecka 6 (dvlpd.later)	5728	..... (T-9)
5647	..... (T-1)	29	..... (T-7)
48	..... (T-7)	5730	Chopin St.(undvlpd.) (T-10)
49	..... (T-9)	5731	..... (T-10)
50	..... (T-4)	5732-'33	Wilcza 56,54a (T-9)
5651+5655	(T-2)	5734-'35	Nowowiejska 13,15 (T-9)
5652	Wola Suburb	5736	Wola Suburb
53	..... (T-7)		

1893

land registry number	location/address (1897 or 1901-15)
5737	(T-4)
5738-'41	- Stawki 71,73,75,77 (in T-4)
5742	- Piękna 14a (T-10)
5743-'44	- Koszyk.3,5 (T-10)
5745-'46	- Kampinoska (T-4)
5747-'48	- Smocza 47,49 (T-4)
5749	- Chopin 15 (T-10)
50	- Koszyk.12 (T-10)
5751-'54	: Niska 67,12,30,8 +5759 +65 (T-4)
5755-'56	not located
5757-'59	- Smocza 57,60
5760	(T-10)
5761-'62	not located
5763	- Mokotowska 37 (T-10)
64	- Jerusalem Ave.73 (T-10)
5765	(T-2)
66	(T-7)
5767-'69	- Sochaczewska 8,6,10 (new street 1880s) (T-4)
5770	- Foksal 14 (CBD-F)
5771	Wola Suburb
5772	(T-6)
73	(T-8)
74	not located
75	(T-8)
5776	- Chopin 13 (T-10)
77	Wola Suburb
78	not located
79	(T-4)
5780-'86	: Młynarska St. in Wola (<1897)
5787-'88	- Smocza 10,8a (T-2)
89-'96	- Nowolipki 51-37AB (T-2)
5797	(T-7)
5798-'99	- Prosta 8,10 (T-8)
5800	- Ceglana 9 (T-8)
5801-'2	- Żelazna 41a,43
5803	not located
5804	(T-4)
5	(T-7)
6	(T-10)
5807-'9	-street block 198 (T-8)
5810	(T-9)
5811-'17	: ŚW.BARBARY STREET (nos.1-11,laid out c.1900 in T-9)
5818	(T-1)
5819-'22	not located
5823	(T-2)
24	(T-9)
25	(T-10)
5826-'29	- Stawki 28,26,24,22 (in T-4)
5830	Wola Suburb
5831-'32	- Nowolipie 70,68a (in T-2)

land registry number	location/address
5833	- Żelazna 43 (T-8)
5834	- Mokotowska 4/6 (T-9)
35-'36	- Marszałk.31a,31 (T-9)
5837	not located
38	(T-3)
39	(T-7)
40	(T-9)
41	(T-10)
5842-'43	- Nowowiejska in T-9
5844-'50	: Mokotowska 17,15,13,11,9,7,5 in T-9)
5851	Wola Suburb
52	(T-9?)
53	(T-9?)
5854-'55	- Królewska 27,29 (in CBD-A)
5856-'57	not located
5858	(T-3)
59	(T-6)
5860-'64	- Złota 75-83 (in T-7) (+ Żelazna 24)
5865-'70	- not located (in T-7?)
5871	(T-9)
5872-'74	- post-1901 (T-9)
5875-'76	- street block no.327 (in T-10)
5877	not located
5878-'80	- Twarda 37,39,41 (in T-7)
5881-'85	- Jewish Cemetery area + Niska extension (Wola in V)
5885	: PLOTS DEMARCATED TO 1897
5886	(CBD-F)
5887-'89	Solec - Powiśle
5890-'93	not located
5894-'98	: Kupiecka St.,south side (nos.11,9,7,5,3 in T-3)
5899	(T-10)
5900-'2	Powiśle in CBD-F
5903-'5	not located
5906	(T-9)
7	not located
5908-'9	- Pańska/Prosta 72/19,70/17(T-8)
5910	= 1582E
5911-'13	- Złota 54,52,50 (T-7)
5914	(T-4)
5915/2450	(T-2)
5915-'18	- Górna 26-20 (T-10)
5919	(T-6)
5920	not located
5921-'25	- Mokotowska 20,18,16,14,12 (T-10)
5926-'30	- Nowowiejska 18a,16,18,14 (T-10)
5931	not located
32	(T-10)
33	- Ciasna St.-(T-1) : street block infill

land registry number	location/address /in 1901 or 1915/	land registry number	location/address
5934	..... /T-2/	6024	- Sienna 77 T-8
5935/6	- Chopin 1	25	- Towarowa 31
37	- Ujazdów Ave. T-10	6026	..... Wola Suburb
38	/1753F/	6027	..... T-8
5939	/1600E/ - T-9	6029	..... Wola Suburb
5940-	44 - street block 24	6030	- Sienna 76/street block no.137 in T-8
	/CBD-D, subdivided from 2624: N.Zjazd 2-6 + Dobra 94/	6032	..... Powiśle
5945	/2915E/-Solec-Powiśle	6033	..... T-9/Wilcza 46/
5946	- subdivision of 1206, T-7	6034-6047	: Koszyki - NOWO-WIELKA new street built-up after 1901
5947	- " " 2354/54A, T-2	6048	- Wielka 9 in T-9 /+/
5948	- subdivision of 1174, T-8	6049	- not located
5949	- " " 5101, /Tenement Enclave/	6050	..... T-9
5950	- subdivision of 1506, T-7	6051	..... T-4
5951-5962	: SADOWA STREET, nos.11-1+2-14, c.1897/8, owner Lothe, street blocks 327 + part of 328 in T-10	6052-	54 - Ogrodowa 59, post-1901 developm t
5963-	74 - subdivisions of plots 3090 in Wola Suburb /Skierniewicka-Wolska sts./	6055-	56 - post-1901/Leszno/
5975	- subdivisions of 2485A + 2486 in T-2	6057-	58 - not located
5976	- subdivision of 5002 in Wola	6059-	65 : Powiśle-Solec, post-1901
5977	- ..... T-8	6066-	70 : Okopowa in T-2, post-1901
5978-	80 - Dobra St./Powiśle/	6071	- Teodora 17 in T-9
5981	- subdivision of 2311 <sup>1</sup> / <sub>2</sub> /T-4/	6072+	74 - not located
5982	- subdivision of 1754 <sup>II</sup> /T-9/	6073	..... T-4
5983-	86 : street block 113 in T-4, Kampinoska St.	6075-	79 : Dzielna 9 Leszno, T-2
5987	- not located	6080-	82 - Wola Suburb
5988+	91 Nowogrodzka in T-9	6083-	87 : ŚW.BARBARY new street nos.12-4, 1899-1901
5989	..... T-8	6088-	90 - Wola Suburb
5990	- subdivision of 3106E in Wola Suburb	6091-	96 - Stawki in T-4
5992	- subdivision of 5660 + 5576 in T-4	6097-	99 - CBD INFILL /Moniuszki St.in CBD-F/
<b>PLOTS DEMARCATED TO 1898</b>		6100	..... T-8
5093	- subdivision of 786, T-6	6101-	2 : post-1901
5994-6000	: post-1901	6103-	5 : Ostrowska 7-3 in T-4
6001	..... Wola Suburb	6106-	13 : Wola Suburb
6002, 6004 + 6008	- 9 not located	6114	..... Solec-Powiśle
6003	..... T-3	6115-	21+6126-28 not located
6005	..... Wola Suburb	6122-	25 : Leszno infill, post-1901
6006	..... T-8 /+/	6129	..... -Powiśle/Solec
6007	..... Powiśle	6130-	33+6137-38 not located
6010	..... T-4	6134	..... Wola Suburb
6011, 14 + 16	: post-1901	6135	..... T-2
6012+ 13	- Smocza in T-4	6136	..... T-4
6015	..... T-4	6139	..... T-4
6017-	20 : Śliska-Sienna in T-7 /corner houses/	6140,	41, 43 - not located
6021	..... T-8	6142	- Klonowa 1 in T-10
6022,	23, 28 + 31 : post-1901	6144-	49 : CBD INFILL ; Jasna-Hortensja-Przeskok streets in CBD-F
		6150-	51 - Grzybowska in T-8
		6152	- Żelazna, in T-8
		6153-	54, 6156-9 - not located
		6155	..... T-4
		6160-	63 - Wola Suburb
		6164-	67 - Gęsia St. 91-97, T-4
		6168	- post-1901



land registry number	location/address /in 1901 or 1915/	land registry number	location/address III
6169 -	Stawki in T-4	6214-'23 :	NATOLIŃSKA STREET, nos.3-21 + 14-22, c.1900 in T-10
6170-'71 -	Pawia 64a, 64 in T-2	6224-'26 :	SŁUŻEWSKA STREET, nos.5,3,3a + 2, c.1900 in T-10
6172 -	Chopin /developed after 1901/	6227-'29 :	development of S Spokojna St. after 1901 in Wola Suburb/V
6173 -	Kupiecka 4 in T-3	6230 -	Nowolipki 94/96, T-2
6174 -	Miedziana in T-8 /developed after 1901/	6231-'41 -	not located, post- 1901
6176 -	Hotel Bristol in CBD-B+E	6242-'44 -	post-1901 building in Koszyki /T-9/
6175+6177-'82 :	Wola Suburb	6245-'51 -	not located, post- 1901
6183 -	Sienna 67 in T-8	6252 -	Al. Róż in T-10
6184 -	Stawki 34 /undeveloped/ in T-4	6253 -	Daniłowiczowska in CBD /XII/
6185, '87, '88 :	not located	6254-'56 -	not located, post- 1901
6186 -	Nowolipki 16, T-2	6257 :	subdivision of 2910B, to create plots 6257- 6259 in Powiśle/CBD-F /Czerwonego Krzyża 1,2,4/
6189 -	Dzika 75, T-4	6260 -	61 - not located, 1901-
6190-'92 :	Stawki-Smocza- Dzika in T-4	6262-'64 :	Powiśle/Solec
6193-6202 :	not located, and developed after 1901		
6203 -	post-1901/Aleje Jeroz./		
6204-'8 :	Leszno Infill in T-2 or T-6		
6209-'13 -	not located /post-1901/		

DEMARCATION TO 1901 / Czerniakowska St. /

PLOTS LAID / 6265 - Mokotowska 46, T-10 /  
OUT AFTER 1901 / 6266 - Grzybowska 94, T-8 /

Table VIII:

LOCATION OF NEWLY-DEMARCATED PLOTS 1901-1915  
(based on tax registers from 1908 and 1915)

land registry number	location/address -police nos. from 1908+1915-	land registry number	location/address
6267+	68 - not located	6348	- Wiejska 19 in T-10
6269	- Dzika 62 in T-4 /+/ 6270-	6349	- Nowokarmelicka in T-4 /subdivision of 2329/30A/
6270-	73 : "NOWO"WIELKA STREET /nos.6-10+9, laid out in 1900-1 in T-9, since 1922 named Lwowska St./	6350	- Nowogrodzka 78 in T-9
6274-	75 - Belwederska 14+16 /Sielce Suburb in T-10/	6351	- Grzybowska in T-8 or T-6
6276-	77 - Parkowa St./Sielce	6352	- Kaliksta 2 /+/ 6353
6278-6286	- Wola Suburb, incl. St.Stanisław St., Młynarska etc.	6353	- Waliców 2/4 in T-8 /Trade School/
6287-6305	: WILANOWSKA STREET /nos.26-6+5-19 in Powiśle-Solec, laid out in c1900/	6354	- not located
6306-	9 - Jerusalem Avenue in Powiśle	6355-	60 :BODUENA, NOWOJASNA + NOWOSIENNA new streets in CBD-F /tenement-office infill after 1900-BLOCK 233/
6310-	11 : CBD-F infill - MONIUSZKO /new/ STREET; Warsaw Philharmonic Hall	6361-	64 : Moniuszko+Nowojasna streets - BLOCK 232 /cf nos. 6438 and 6439/ CBD-F infill
6312	- FLORY/new/Street in T-10	6365-	66 : Moniuszko in street block 231/cf.nos.6440,6683, 6940,6945,6952 + I354/
6313	- Twarda 69 in T-8	6367	- not located
6314	- Flory St. in T-10	6368	- Jerusalem Ave.7 in T-10
6315	- Długa 50 infill in CBD-B+E Simons Arcade-Nalewki/+/ 6316	6369	- not located
6316	- Chopin St./T-10/	6370-	72 - Jerusalem Ave.59-55 in T-9/nos.41-45/
6317	- not located	6373-	74 - Nowogrodzka 43+44
6318	- Radna St.in Powiśle	6375	- Nowogrodzka--/T-10/
6319	- Ujazdów Ave./T-10/	6376	- not located
6320	- not located	6377	- Krucza 47a in T-10
6321	- subdivision of 2785E in Powiśle	6378	- not located
6322	- BULWAR /VISTULA BLVD. in Powiśle	6379	- Rozbrat in T-10
6323	- Belwederska in Sielce	6380	- Kaliksta 6 in T-9
6324	- Marszałkowska 35 in T-9	6381	- "Nowo"Dobra in Powiśle
6325	- Mokotowska 8 in T-9	6382-	84 : Wąska 1-5 in CBD-B+E /plot subdivision and speculation in CBD/
6326-	28 - not located	6385	- Nowokarmelicka 2a /+/ in T-4
6329	- Lipowa 2/Bulwar in Powiśle	6386	- not located
6330	- Marszałkowska 15a in T-9	6387	- 90 : Szucha 8,6,4 + Bagatela 10 in T-10
6331	..... Wola Suburb	6391	- Nowojasna 1
6332	- Nowowiejska 27 in T-9/?/	6392	- Nowosienna 9 CBD-F
6333	- Solec St. in Powiśle	6393	- Nowojasna 3 /infill/
6334	- Przemysłowa 29 in Powiśle	6394	- not located /T-9?/
6335-	37 : Warsaw Art School /built 1913 on Bulwar in Powiśle/	6395	- Polna 50 in T-9
6338	- Bulwar/Vistula Blvd.	6396-	99 : Dobra 16,14,19a,11/13 in Powiśle
6339	- Dzika 62 in T-4 /?/	6400-	4 - not located
6340	- Moniuszko St.:CBD-F infill	6405-	12 : new plots demarcated in street block 268 /T-10/ Marszałkowska-Wileka-Hoża streets
6341-	43 - not located	6413	- Jerusalem-Ave.80a in T-7
6344	- Hoża 49 in T-9	6414+6416	- not located
6345	- Krochmalna 60 in T-5/6	6415	- Zajęcza 2 in Powiśle
6346	- not located	6417-	20 - Smolna 36-30 - tenement speculation from after 1901
6347	- Muranowska 37/subdivision of plot 2274A		

land registry number	location/address -police nos. from 1908+1915-	land registry number	location/address
6421-22	- not located	6593	- Szuch Ave.19a in T-10
6423-32	:: CZERWONEGO KRZYŻA /Red Cross-new-Street/, plots without police nos. laid out before 1908- in Powiśle	6594-6604	- not located
6433	- Nowokarmelicka 2b in T-4	6605-6624	:: new plots in Wola Suburb /Opole Square/- largely undeveloped to 1915
6434	- not located	6625-27	- not located/Wola?/
6435-37	- Polna 56,54,52 in T-9	6628	- Tylna Młynarska 3 in Wola Suburb
6438-39	- Nowosienna+Moniuszko streets in CBD-F/BLOCK 232	6629	- not located /Wola?/
6440	- Nowojasna 12 in CBD-F /st.block 231/	6630	- Młocińska 9 in T-4
6441-43	- not located	6631	- Moniuszko in block 230 -CBD-F infill-
6444-c.6460	- new plots demarcated in Ochota Suburb between Grójecka, Kaliska + /new/Jerusalem streets, incorporated into Warsaw City c.1907/8	6632-36	- not located
6461-6506	- not located /Ochota Suburb ?/	6637-38	- Tamka 1a+1b in Powiśle
6507	- Krochmalna 83a in Wola	6639	- not located/Powiśle?/
6508	- not located	6640	- Szczygła 1a in CBD-F
6509	- Daniłowiczowska 6/Kapucyńska 11 infill plot /CBD-B+E/	6641	- Żelazna 40 in T-8
6510	- not located	6642	- Róż Ave.10 in T-10
6511	- Dobra 48 in Powiśle	6643-47	- not located
6512-17	- not located	6648/9	- Hortensja 5 in CBD-B+E
6518	- Dobra 54 in Powiśle	6650-52	- not located
PLOTS DEMARCATED TO 1908		6653	- Żródłowa 3 in CBD-B+E
6519-25	- not located	6654	- Polna 40 in T-9
6526	- Kopernika 1 in T-10 /+ /street widened + extended, replacing Aleksandryja Wrobla streets, in c1907/	6655	- Służewska 4 in T-10
6527-28	- Solec 38a+b; subdivision of plot 2986A in Powiśle	6656	- not located
6529-33	- not located	6657	- Łazienkowska 8 in Solec-Powiśle
6534	- Polna 10 in T-9	6658-60	- not located
6535	- Karolkowa in Wola Suburb	6661	- ..... Wola Suburb
6536-37	- not located	6662-66	- not located
6538	- Nowolipki 38?/subdivision of plot 2385E in T-2 ?/	6667	- Czerniakowska 13 in Solec-Powiśle
6539-42	- not located	6668-69	- not located
6543	- Wronia 23a in T-8	6670-75	- Grójecka St.+ environs in Ochota Suburb
6544-47	- not located	6676-77	- not located/Ochota?/
6548	- Nowogrodzka in T-9 /?/	6678	- Dobra 12 in Powiśle
6549-55	- not located	6679-80	- Wspólna 3+3a in T-10
6556-58	- KLONOWA-new-STREET /laid out in 1875, plots demarcated c.1908->/	6681-82	- not located
6559-71	- not located	6683	- Warecki Sq.7 in CBD-F
6572	- Nowogrodzka 2a in T-10	6684-85	- not located
6574	- Krucza 10 in T-10	6686	- Nowomiejska 8 in T-10
6573+6575-82	- not located	6687	- Nowogrodzka in T-9/?/
6583	- Klonowa 14 in T-10	6688-90	- not located
6584-87	: plots demarcated on Flory and Klonowa streets	6691	- ..... Wola Suburb
6588-92	- not located /T-10?/	6693	- Piękna 66a in T-9
		6692+6694-95	- not located
		6696	- Bagatela 12 in T-10
		6697	- Szuch Ave.2a in T-10
		6698-6702	- not located
		6703	- Tylna Młynarska 5a in Wola Suburb
		6704	- Żurawia 22 in T-10 /subdivided or mistake/
		6705-6	- Przyokopowa in Wola
		6707	- not located
		6708	- Młocińska 12 /?/ in T-4
		6709-11	- not located
		6712	- Chocimska in T-10
		6713-15	- not located
		6716	- Żelazna 66 in T-5/6/?/

land registry number	location/address -police nos. from 1915-	land registry number	location/address
6717-	20 - not located	6856+6858	- Tamka 45a+b in CBD-F /infill/
6721-	22 - WYSOKA-new-STREET /cul-de-sac in CBD-F ; bourgeois tenements from c.1909	6857	- Kopernika 30 in CBD-F
6724	- Wilcza 31 in T-10 /multi-storey tenement/	6858	- Solec 50 in Powiśle
6723+6725-	31 - not located	6859-	68 - not located
6732-	35 - Tylna Młynarska in Wola Suburb	6869-	76 : ZAGÓRNA-new-STREET in Powiśle laid out before 1914
6736-	42 - not located	6877-	78 - not located
6743	- Mławska 5/7 in T-1 /tenement infill/	6879	- Żelazna 22 in T-8
6744-	47 - not located	6880	- Tamka 1a/subdivision/ in Powiśle
6748	- Nowogrodzka 18A in T-10 /subdivision of plot 1509C/	6881	- Przyokopowa 9 in Wola
6749-	50 - not located	6882-	87 - not located
6751-	54 - Street Block 146 in T-8/Waliców-Ceglana sts./	6888	- Żelazna 42 in T-8
6755	- Leszno 124 in Wola	6889-	97 - not located
6756-	58 - Solec/Dobra streets in Powiśle	6898	- Pawia 49 in T-2 /?/
6759-	61 :: site of Karaś Palace, subdivided in 1909; palace demolished in 1913, plots undeveloped apart from 6760 /multi-storey tenement/	6899-6900	- not located
6762-	69 - not located	6901	- Dobra 9 in Powiśle
6770	- Nowokarmelicka 1 /+/ in T-4	6902-	9 - not located
6772-	73 - Marszałkowska 19+21 in T-9	6910	- Nowolipie 21 in T-2
6771+6774-	78 - not located	6911	- subdivision in block 14A /closed down factory in T-8/
6779	- Kopernika 3 in CBD-F	6912	- Niska 20
6780	- Młynarska in Wola Suburb	6913	- Niska 14 in T-3
6781	- not located	6914-	17 - Niska 16,18,22,24?
6782	- Polna 42 in T-9	6918	- Mławska in T-1/infill/
6783-	85 - not located	6919-	24 - not located
6786	- Chocimska St. in T-10	6925	- Radna 15,17 in Powiśle
6787	..... not located	6926-	7 - not located/Powiśle?/
6788-	91 - street block 145 in T-8	6928/9	- Piękna 11/11b in T-10 /corner tenement dvlpmt. from c1912/
6792	- Sewerynow in CBD-F; plot developed in the 1930s	6930	- not located
6793	- Tylna Młynarska in Wola	6931	- Mokotów plot in Warsaw City /T-10/
6794	- Wilcza 29a in T-10	6932-	33+6935-38: not located
6795	- not located	6934	- Polna 16 in T-9
6796	- Raszyńska 14 in Tenement Enclave	6939	- Przyokopowa 12 in Wola
6797	- not located	6940	- Świętokrzyska 23/+/ in CBD-F/infill/
6798	- Belwederska in Sielce	6941	- not located
6799-6843	- plots not located	6942-	44 - Dobra 40-44 in Powiśle
6844	- Szczygła 4a in CBD-F	6945	- Świętokrzyska 25a-CBD-F
6845	- Dzika 61b in T-4	6946	- Ludna 9b in Powiśle
6846-	47 - not located	6947-	51 - not located
6848	- Chocimska St. in T-10	6952	- Świętokrzyska 25, CBD-F
6849	- Moniuszko/N. Jasna in CBD-F	6953-	55 - not located
6850	- Elektryczna 3/a/ in Powiśle /new street in connection with the Electric Power Station expanded before 1914/	6956	- Leszno 111 in T-5/6
6852	- Gesia 35 in T-4	6957-	67 - not located
6851+6853-	55 - not located	6968	- Karolkowa 32 /Wola/
		6969-	70 - not located
		6971	- Wilcza 16/16a in T-10
		6972	- Polna 30 in T-9
		6973	- Dobra 7, in Powiśle /Wola?
		6974-	75+6977-80 : not located
		6976	- Leszno 101 in T-5/6
		6981	- Polna 38/40 in T-9
		6982-	87+6989-90 : not located
		6988	- Dobra 24/+/ in Powiśle

land registry number	location/address -police nos.- from 1915-	land registry number	location/address
6991	- subdivision of street block 144 in T-8	7029	- Ludna 11/a/ in Solec-Powisłe
6992	- 3 - not located	7030	- Mokotów in T-10
6994	- Mokotów in T-10	7031	- 36 - not located
6995	- 97 - not located	7037	- 38 - Hoża 3+1a in T-10
6998	- subdivision in block 144 in T-8; cf 6911+6991		/multi-storey tenements c1914/
6999-7028	- not located	7039	- 60 - not located
		7061	- subdivision in block 144
		7062	- 89 - not located
		7090	- subdivision in block 144
		7091	- not located
		7092	- 93 - Woła Suburb
		7346	- Nowolipie 17/a/post-1919?
		7652ab	- Lipowa 12 /mistake-printing error in registry?

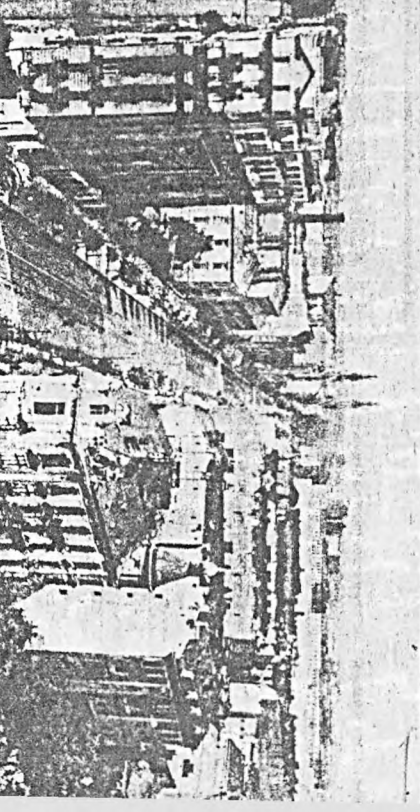
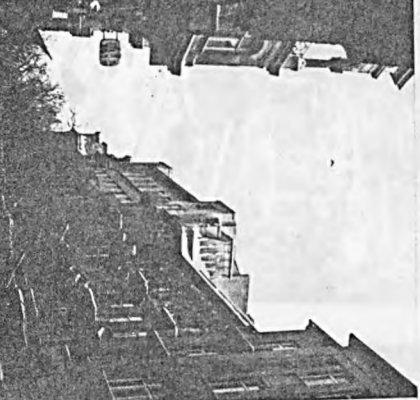
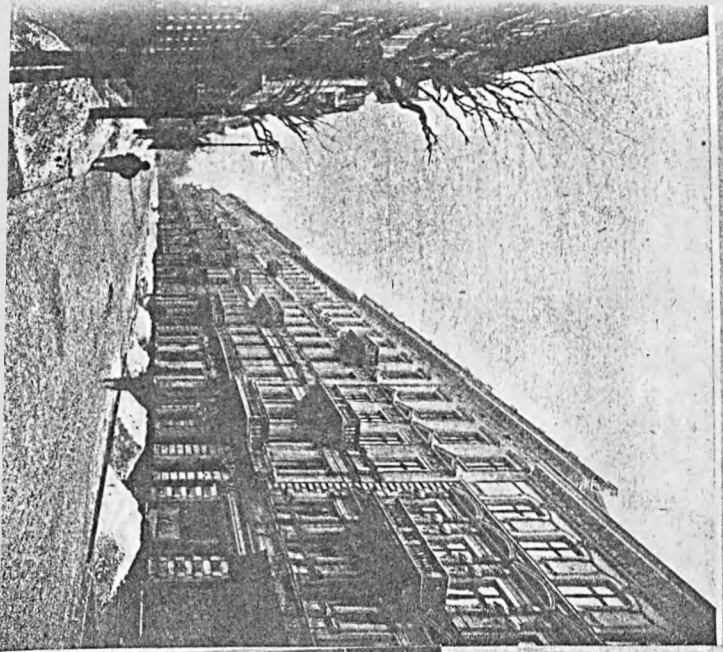
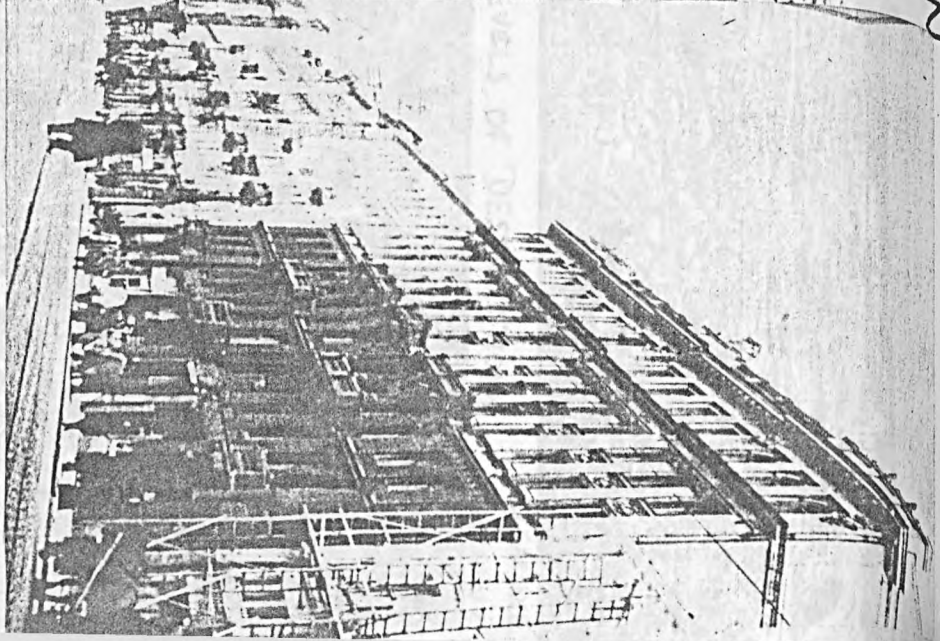
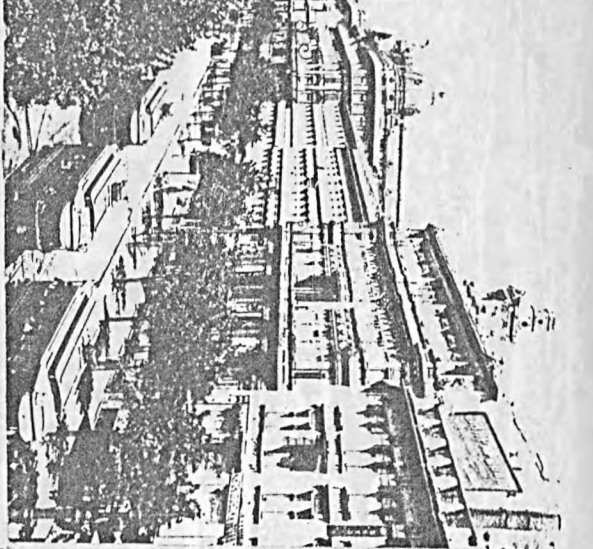
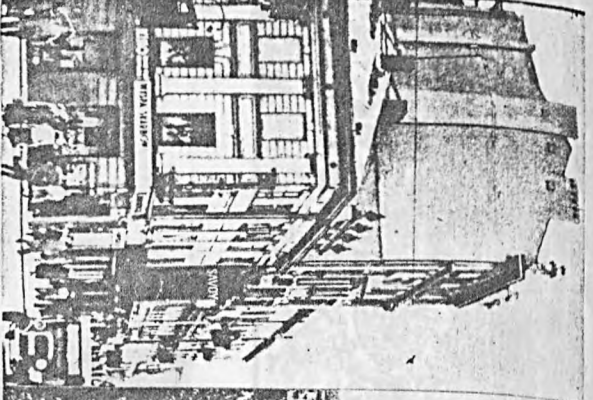
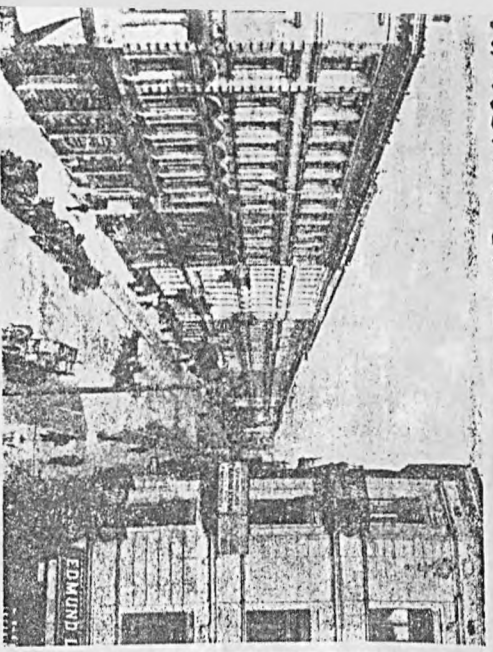
THE "HISTORIC" TOPOGRAPHY OF INNER WARSAW : SUB-AREAS  
 /in the inventory and photographic documentation of building types  
 predating 1919/

CBD-B : Krakowskie Przedmieście				I
CBD-C/D: Stare Miasto/Mariensztat	ex-I+XII			N
CBD-E : ex-"arrondissement" XII				N
CBD-A : Bank district				E
CBD-F1 : Nowy Świat/Marszałkowska	ex-I+X			C
CBD-F2 : Nowy Świat - Escarpment				O
<hr/>				R
T-1 : Nowe Miasto ex-"arrondissement" II				E
T-2 : Leszno .....	ex-III	NORTHERN		T
T-3 : Nalewki .....	ex-IV	INNER CITY		E
T-4 : Okopowa .....	ex-V			N
T-5 : Mirów assimilation	] ex-VII			E
T-6a : Mirów middle reaches				M
T-6b : Mirów west of Żelazna St.				E
T-7a : Prózna Street profile	] ex-VIII	WESTERN		N
T-7b : Grzybów Square remnants		INNER CITY		T
T-7c : Urban Clearance/Palace of Culture				
T-7d : Grzybów - tenement enclaves				
T-8a : Towarowa before Żelazna St.	] ex-VI			B
T-8b : Towarowa west of Żelazna St. 1				E
T-8c : Towarowa west of Żelazna St. 2				L
T-9a : Jerusalem Avenue in ex-XI	] ex-XI			T
T-9b : Middle-Pomological quarter				
T-9c : Lower Pomological quarter			SOUTHERN	
T-9d : Former Koszyki manor estate			INNER CITY	
T-10a : South-Nowy Świat/ Escarpment	] ex-XIII + IX			
T-10b : Upper Alexander				
T-10c : South-eastern tenement belt Lower Alexander				
T-10d : Ujazdów				
<hr/>				
POWIŚLE	/in ex-"arrondissements" I, II, X, XIII + IX/			INNER URBAN PERIPHERY
WOLA	/ " " "	I, I, V, VI, VII /XIX+XXII//		
PRAGA	/ " " "	XIV + XV/		
MOKOTÓW	/ " " "	XVI + XX /+IX//		
OCHOTA	/ " " "	XXIII/		
Tenement enclave in ex-"arrondissement" XI				



# WARSAW STREET PROFILES

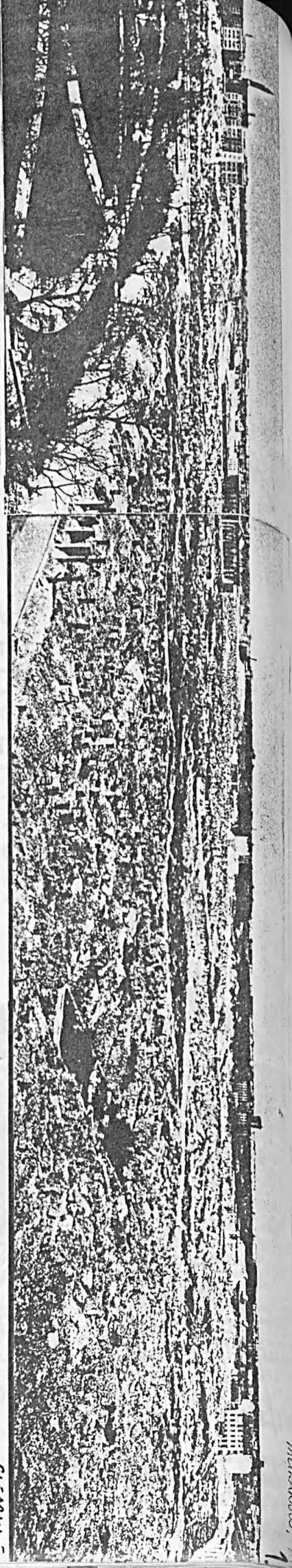
## PHOTOGRAPHIC DOCUMENTATION



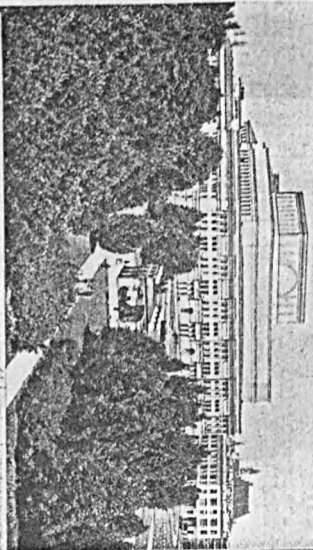
1	5	6	7
2	3	4	8

1. WISZCZYCA southside from ALEXANDER SQUARE (built-up in the 1870s)
2. WIEDZIMIERSKA EAST SIDE Looking NORTH (1870s)
3. FOKSKAL TENEMENT PROFILE (Developed 1890s + 1900-'14)
4. TERUSALEM AVENUE southside from LEOPOLDYNA 1890s - 1910
5. 'TOOTH-GAP' PROFILE OF NOWY ŚWIAT: HOTEL SAWY, 3-FLOOR TENEMENTS + 2-FLOOR TOWN HOUSES
6. N-MARSKAŁKOWSKA: 3-FLOOR TENEMENTS (1860s-'80s) AND COMMERCIAL DWIGHT.
7. KOLEWSKA ST. HIGH RISE REPAIRING EARLIER HOUSING
8. MARSZAŁKOWSKA FROM UNIA LUŻE CIWA SQ. LEFT TENEMENT SKY-SCRAPER

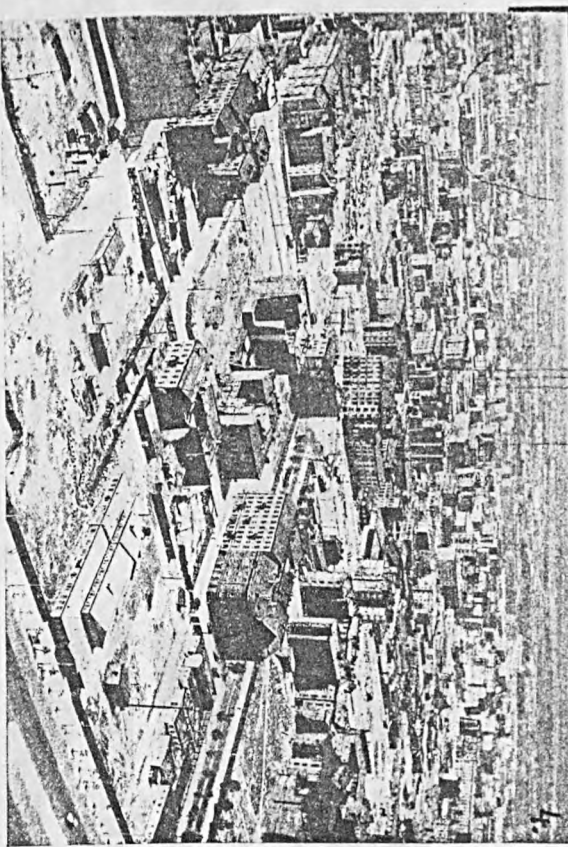




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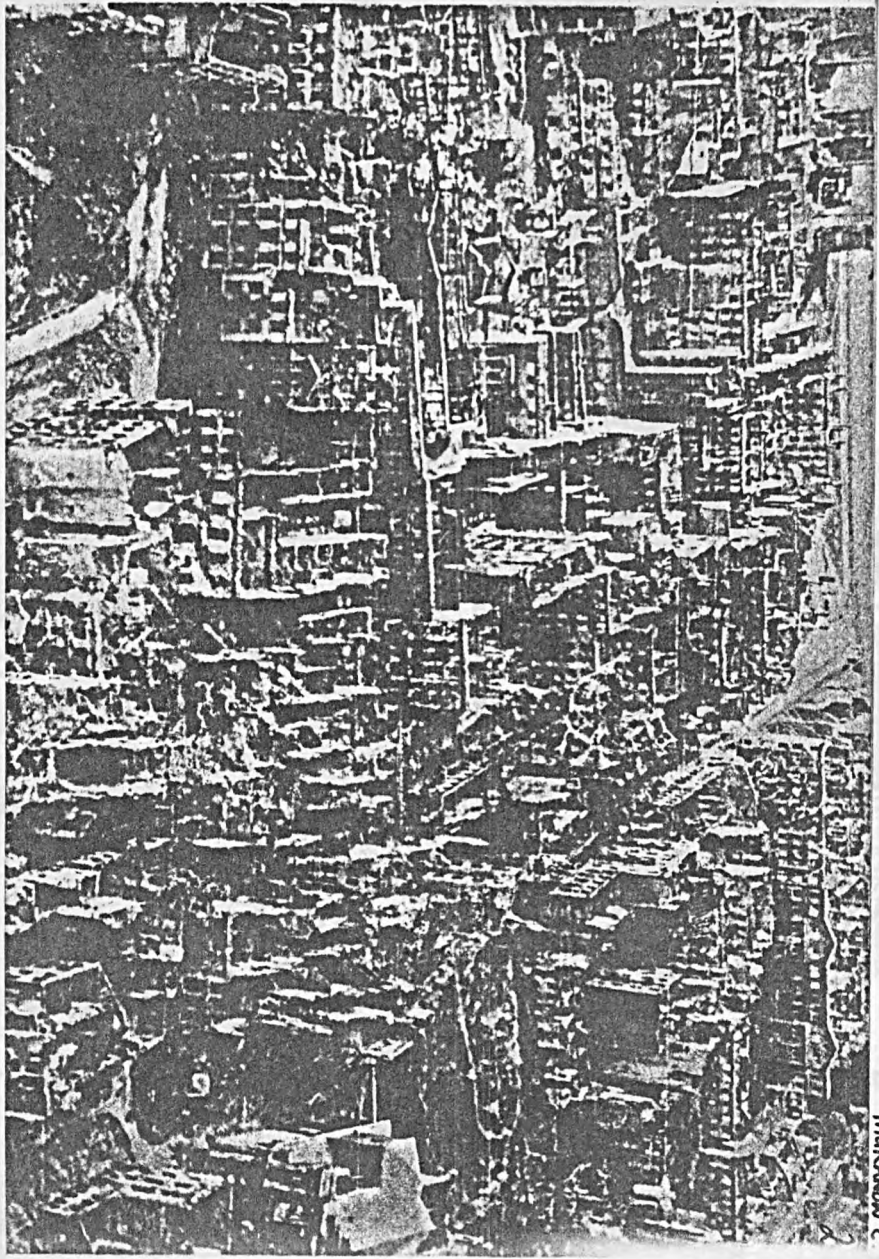


1. Muranów
2. The New Town
3. Site of the Saxon Palace with new theatre
4. "The Wild West" awaiting redevelopment in the 1980s.



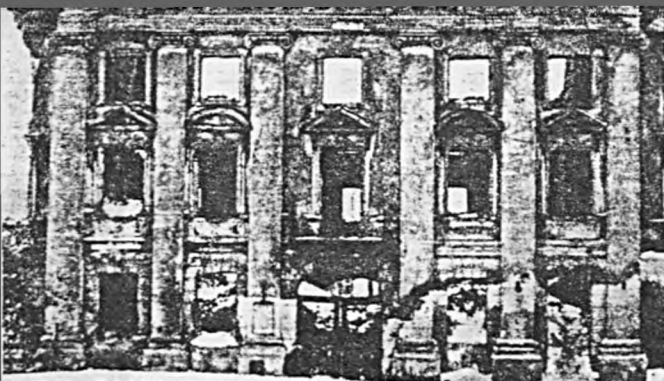
CONTRASTING LEVELS OF DESTRUCTION

CLEARANCE  
MURANÓW c.



W roku 1945 tak wyglądała normalna część Warszawy, tu ruiny Nowego Miasta, które od strony Wisły  
**NEWTOWN c. 1948**  
 COMPLETELY BURNED-OUT  
 For details see page 10

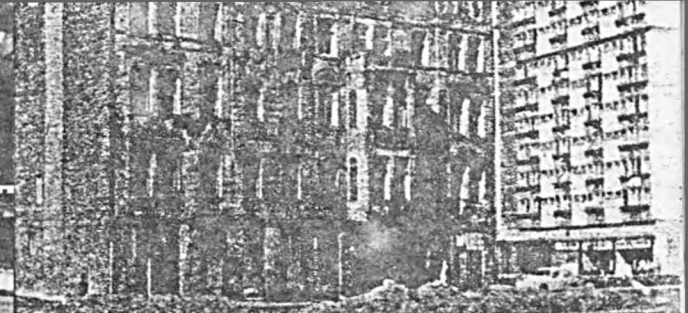




THE CROWN ARTILLERY BARRACKS ON GESIA ST.



SITE OF TOWN HALL AND CANONITES' TEMPLE  
c.1954



GRZYBOWSKA 24/1026 1970s

# DEMOLITION

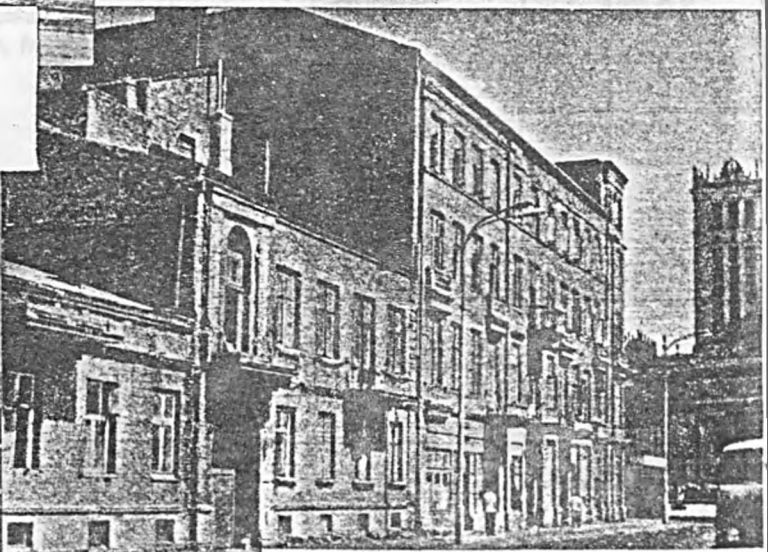
1950s - 1980s



NOWY ŚWIAT 24/1293 BACK-TENEMENT 1989



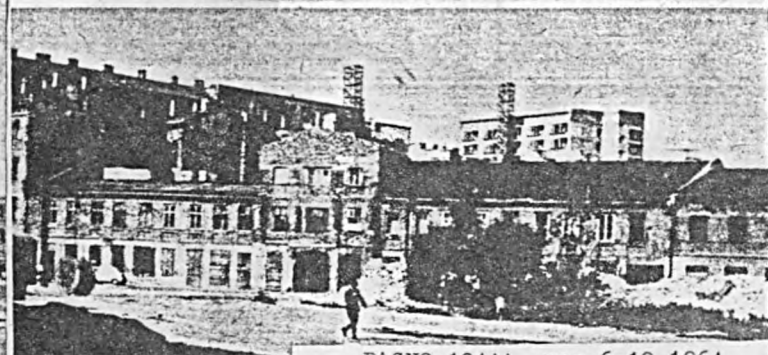
CHMIEŁNA 138/ TWARDA 61, 59, 57, 55  
1549X, T, H, 1505K



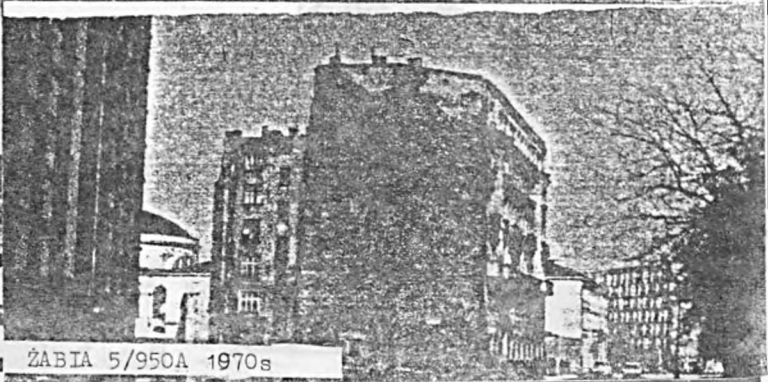
ŻŁOTA 44/SOSNOWA 7/1486E 1970s



CHMIEŁNA 19/1576A 1970s



BAGNO 1244A nos.6-10 1964

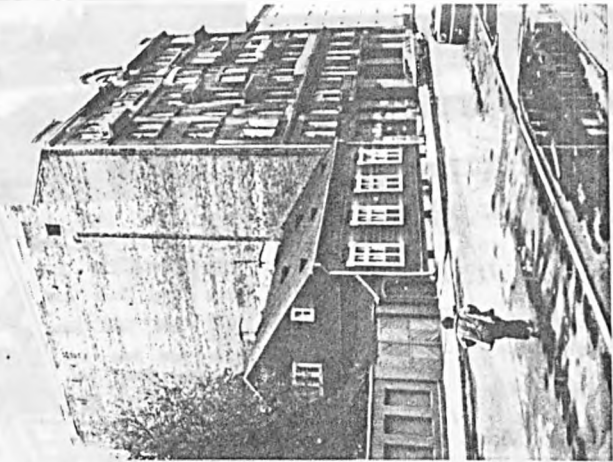
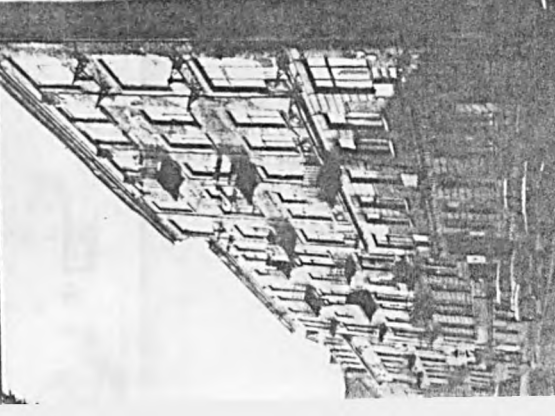
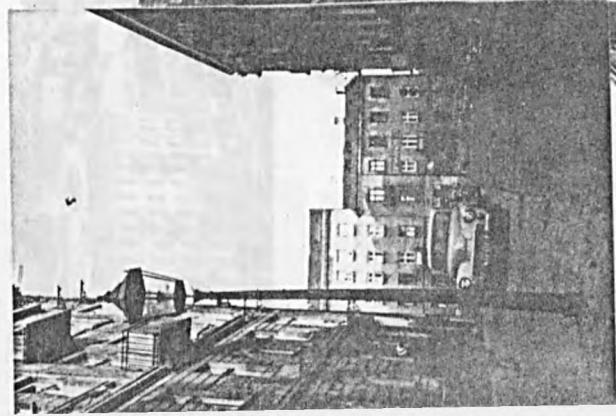
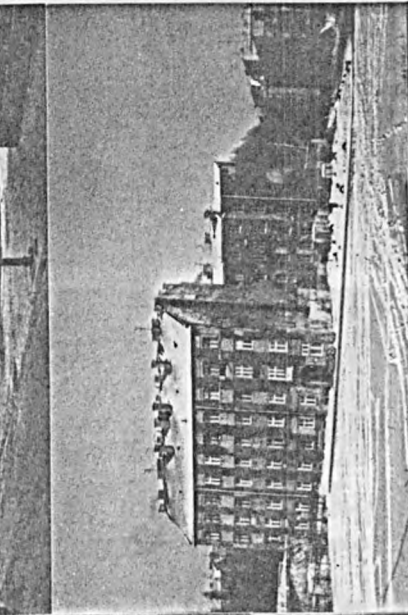
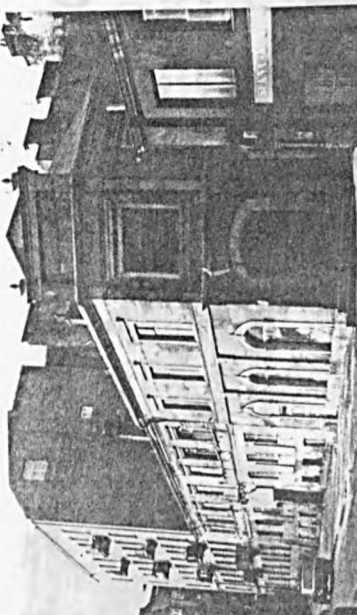


ŻABIA 5/950A 1970s

# ATYPICAL BARRACK-TENEMENTS & TOWN HOUSES ON THE EASTBANK

(from left to right)

MAŁA STREET PROFILE; TENEMENT OUTBUILDINGS BEHIND  
WIKESIŃSKA ST.; WILEŃSKA (NORTH) PROFILE - SITES OF DEMOLISHED  
WOODEN HOUSES; KONOPAKA 6; ŚRODKOWA PROFILE 2; STRZEŁKA 10







**BEYOND THE MID-TOWN:**

**WOLA** ←

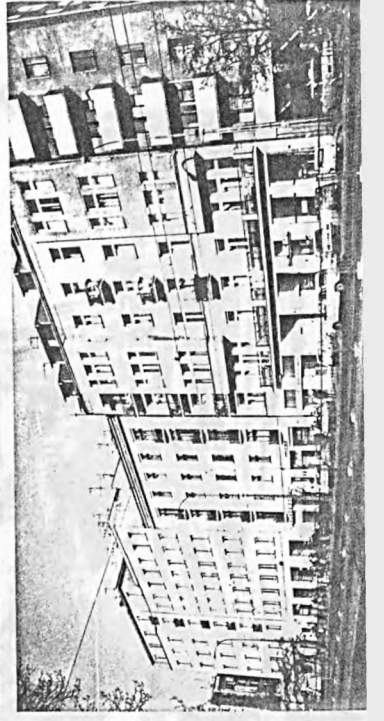
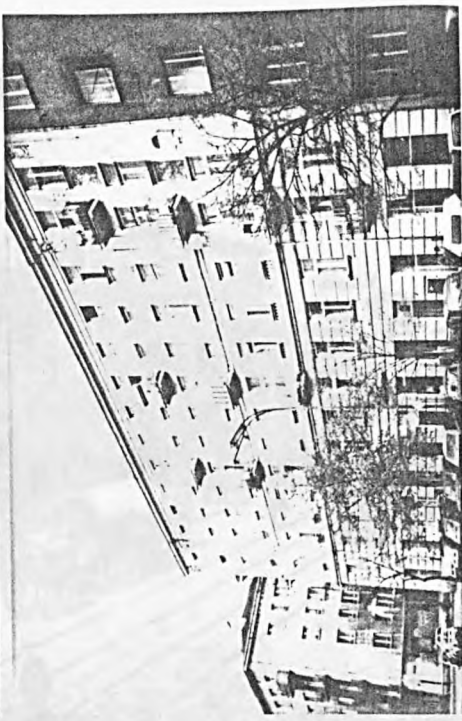
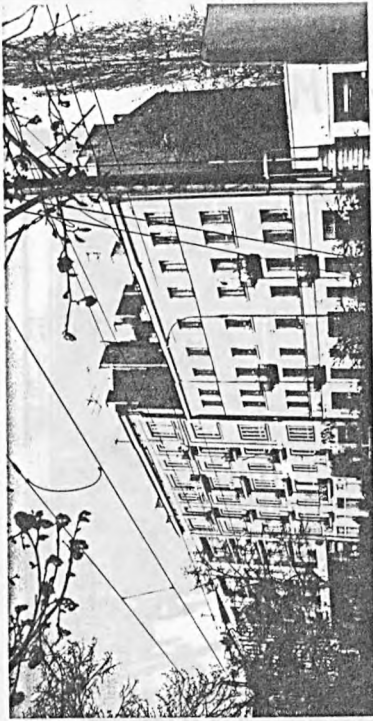
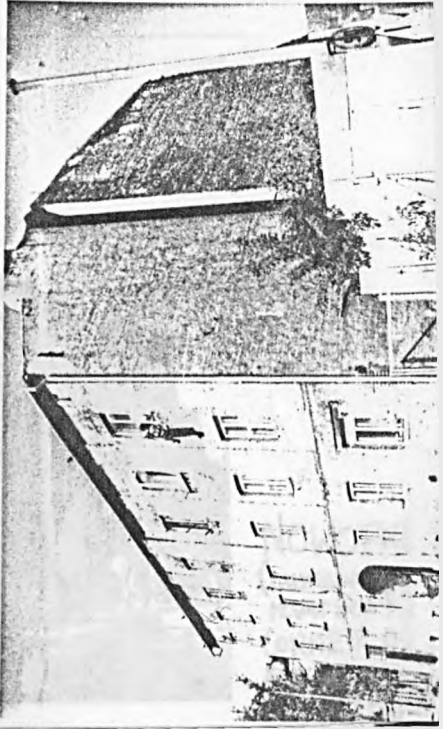
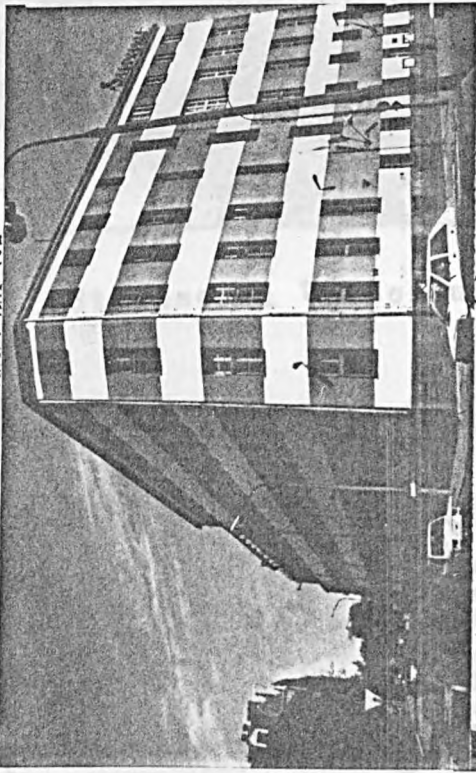
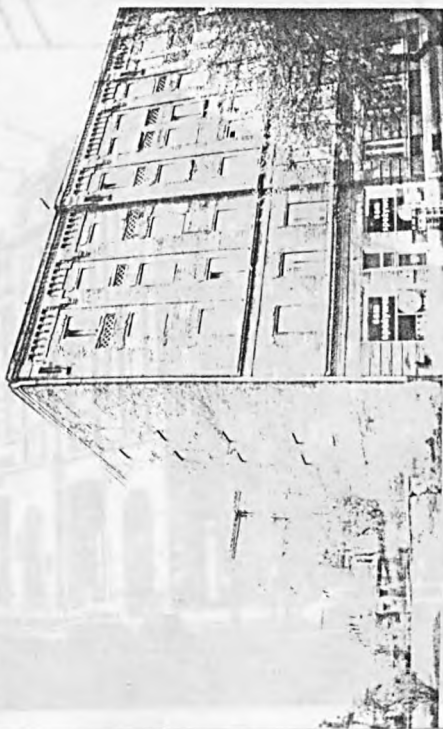
SEMI-TENEMENT  
LANDS (WOLSKA)  
WAMELBERG COLONY  
SUBURBAN TENEMENT-ARTISANS' HOUSES  
ON THE CORNER OF  
KAROLUKOWA ST.

**POWIŚLE**

FUCHSA SONS COCOA  
FACTORY, TOPIEL 12

**MOKOTÓW** →

PULAWSKA 33-35  
RAKOWIECKA 11  
PULAWSKA 3-7  
GRATE WHITE FLATS-1910s



# FROM NALEWKI TO NOWOTKI

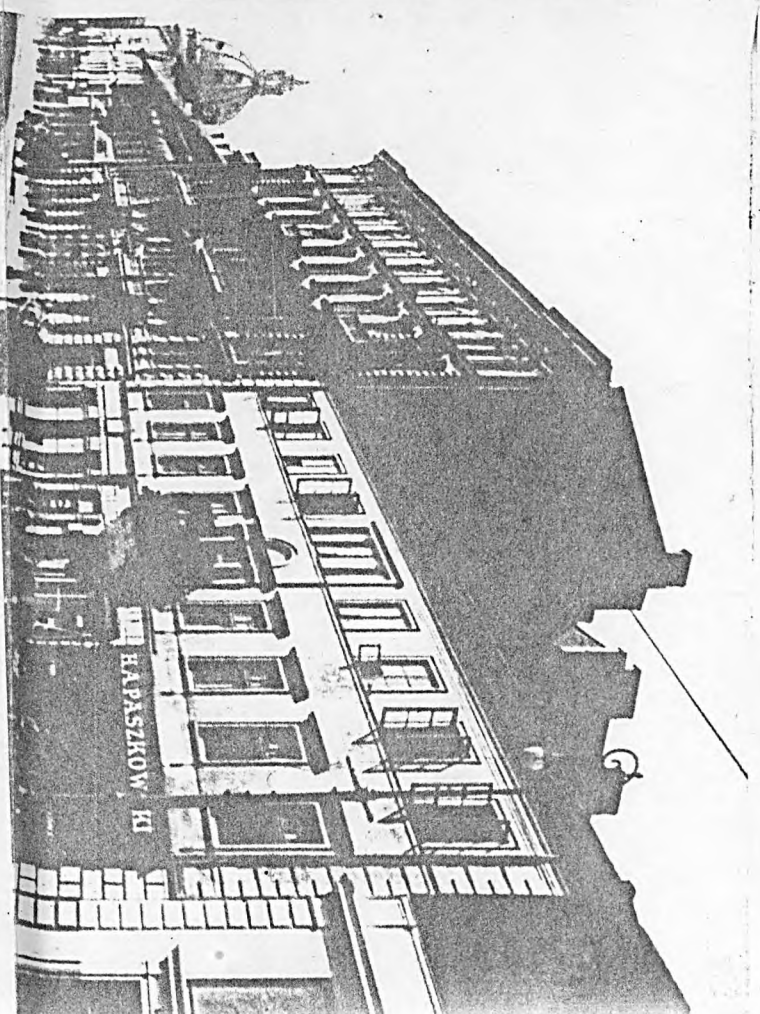
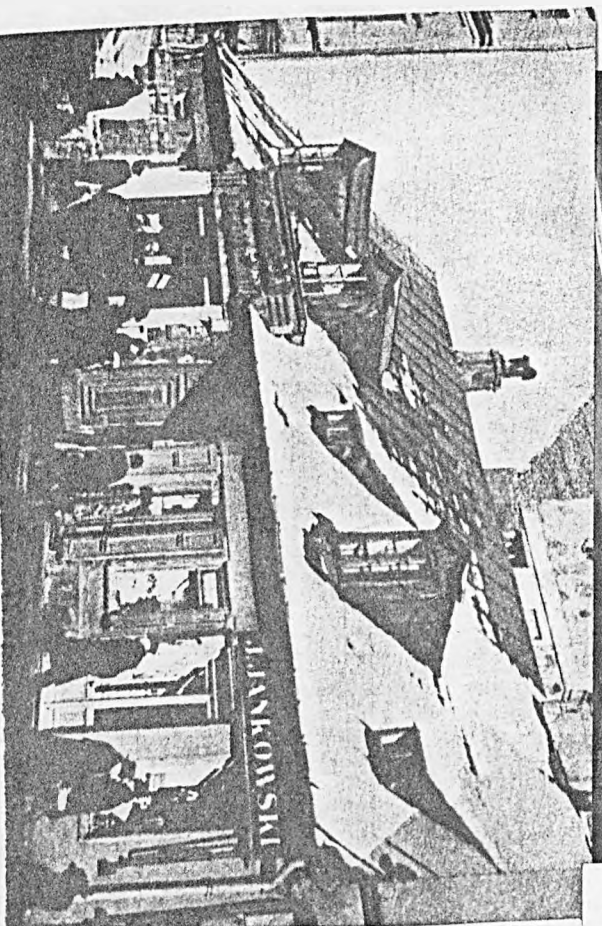
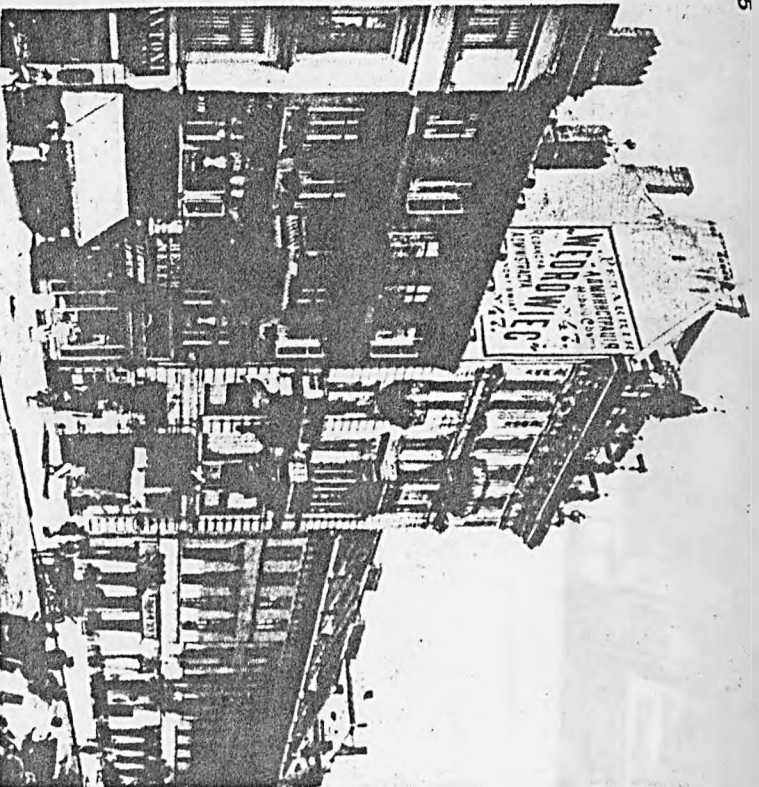


Strasse in Warschau. NALEWKI LOOKING NORTH:  
 TAKEN FROM A FIRST-FLOOR  
 BALCONY OF NO.17  
 (1915)



NOWOTKI 17  
 (numeration  
 reversed!)  
 CORNER OF  
 ANIELEWICZ ST.  
 1987

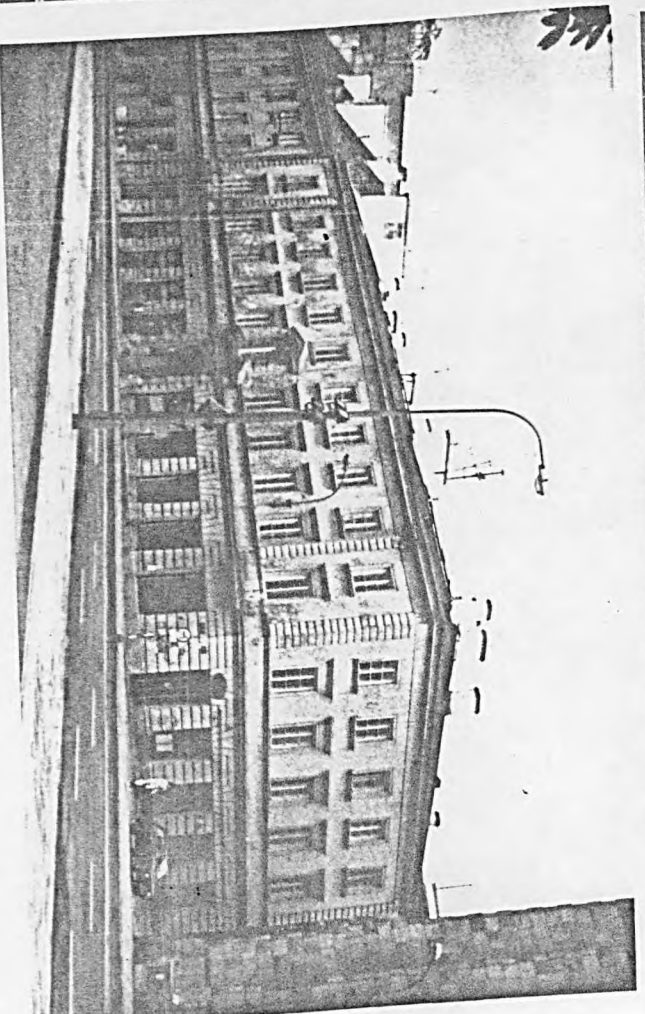
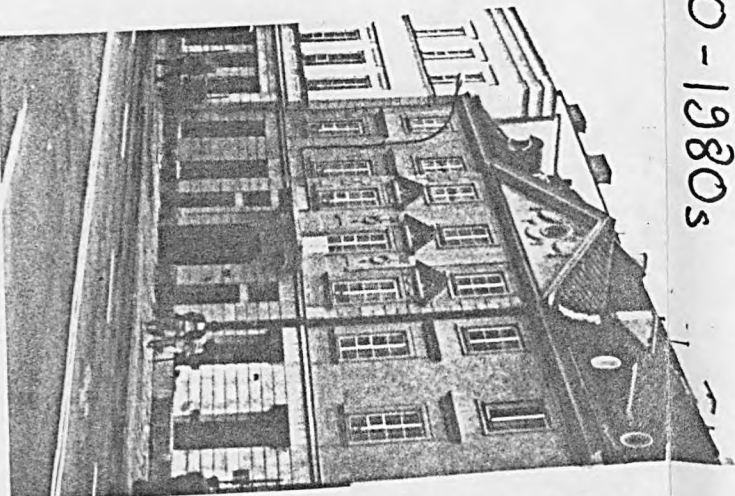




NOWY ŚWIAT CONTRASTS  
c. 1910 - 1980s

	1a	2a
	1b	2b
	4	3a
	5	3b

- 1a-b: 45/1256-49/1254  
(1912 - 1983)
- 2a-b 36/1239/30-28/1295  
(1910 - 1988)
- 3a-b 9/1270 - 1/1274  
(1910 - 1988)
- 4 Wooden house from the late-C18 (68/1317)
- 5 1/1274 : Strazi town house from c. 1780



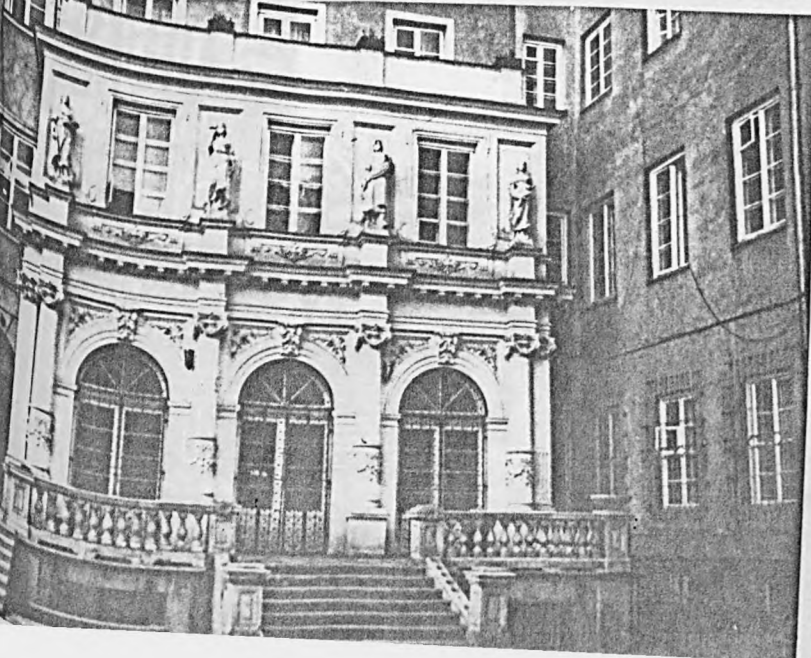


# EAST ~ CHMIELNA PROFILE



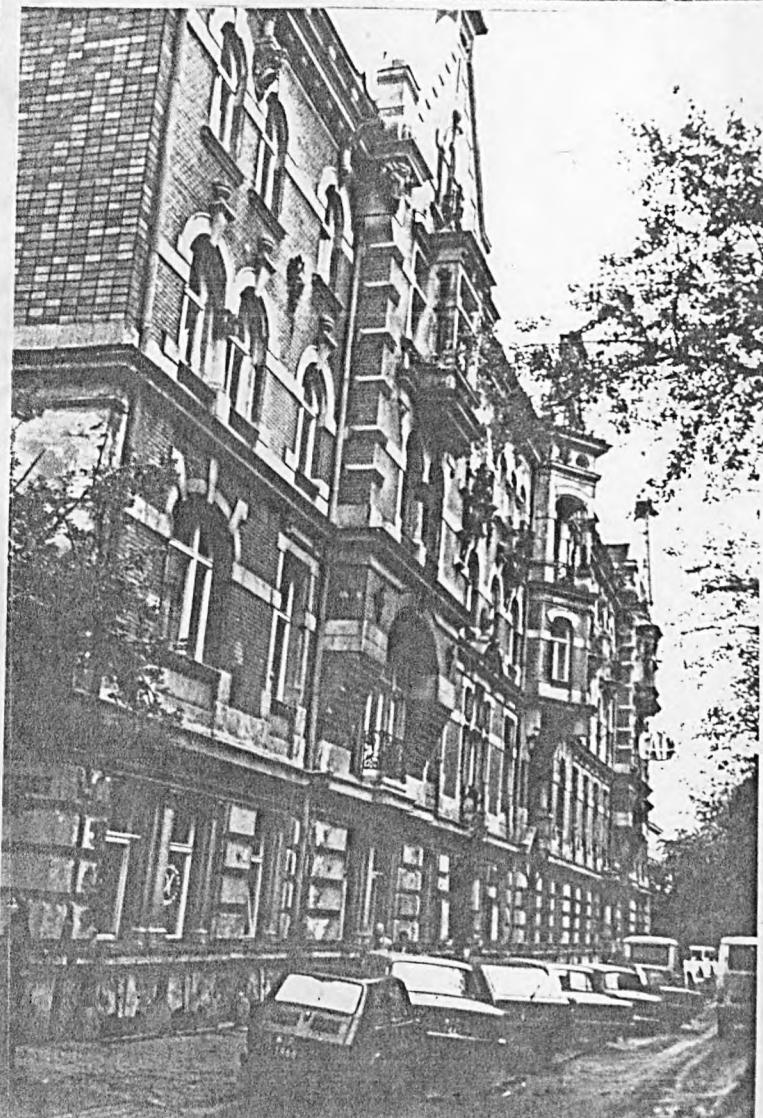
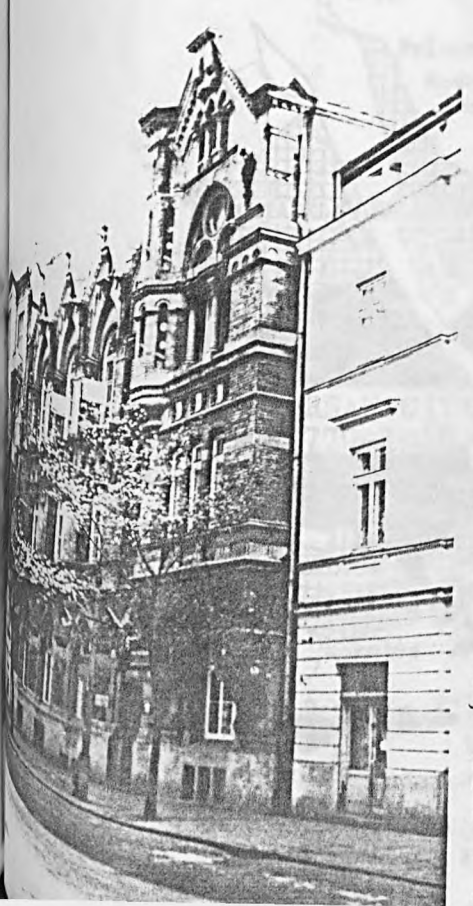
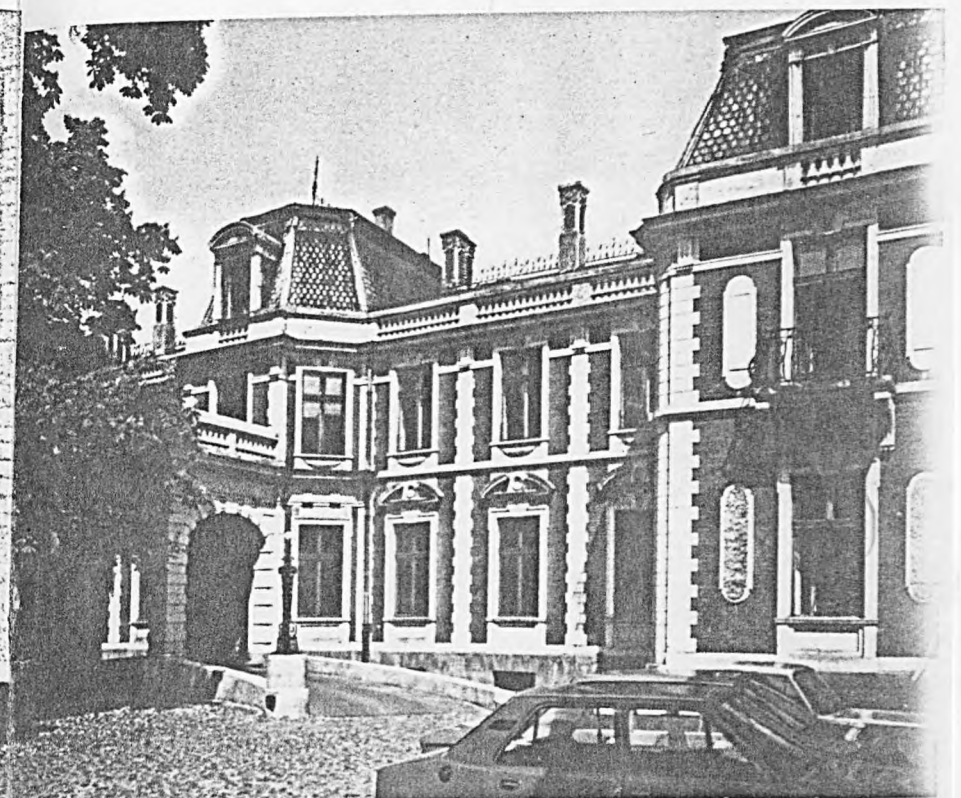
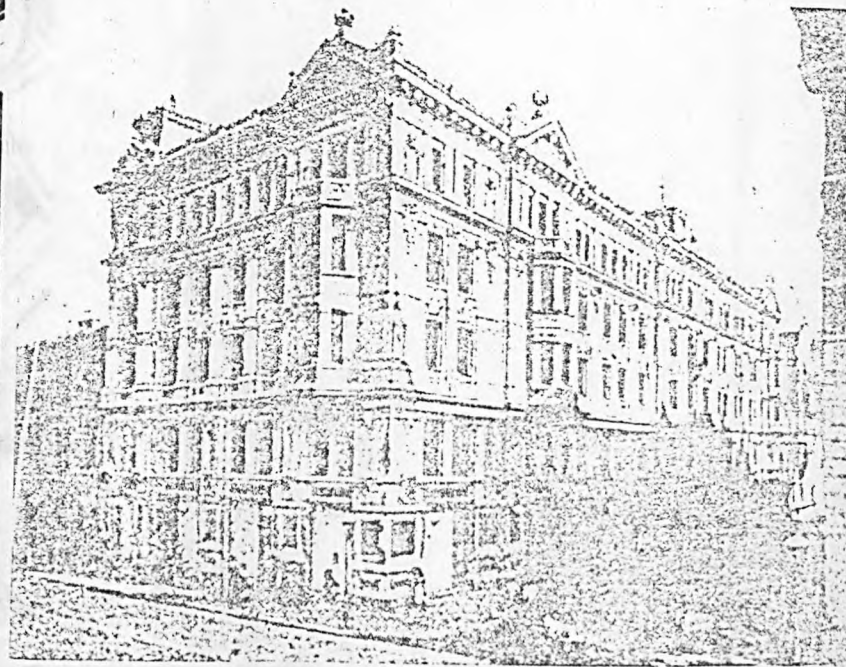
1	4	8
2	5	
3	6	7

- 1. 1-3/1260  
Artisans' workshops and flats (1820s)  
-heightened 1950s-
- 2. nos 5/1260B & 7/1260D :  
S. Smolkowski's tenements c. 1862
- 3. "Hotel Garni" in courtyard of no. 5/1260B
- 4. 18/1527 + 16/1526 (1830s/'40s)
- 5. courtyard of no. 18 - outbuildings post-dating 1860s
- 6. nos. 17 - 11/1565 A-D
- 7. nos. 21/1564, 25/1564 B
- 8. nos. 24 - 30 (1493 - 1520 - '31A)



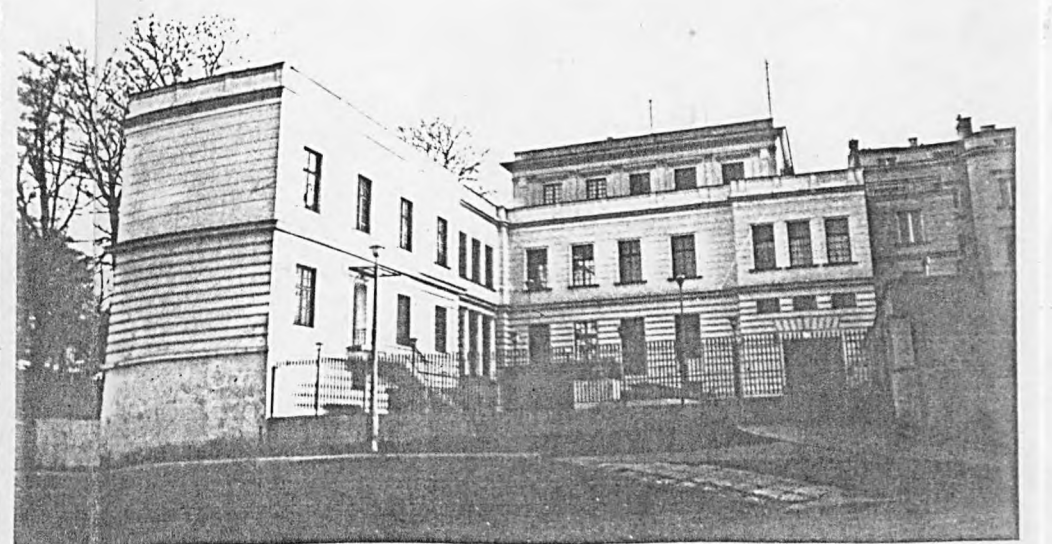


# FOKSAL STREET PROFILE



1	3	5	8
2	4	6	7

1. 21/1296 (Nowy Świat no. 30 - lowered after wartime damage)
2. 19/5719, 17/5633
3. 15/5632, 13/5631
4. 11/1297A
5. 18/1298A (Nowy Świat 32 - lowered)
6. 16/6826
7. Pniński residence
8. K. Zamojski Palace



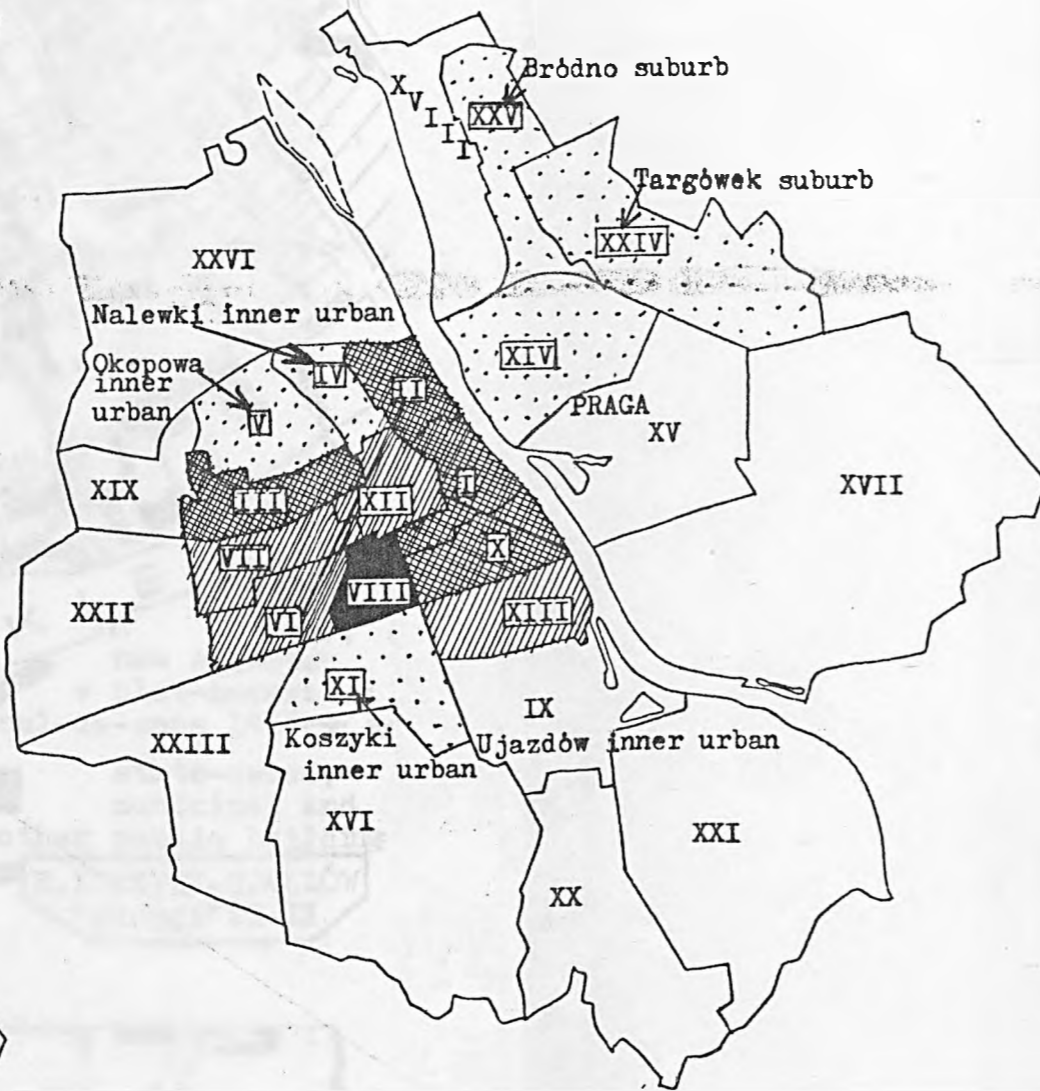


A. Inner-urban and sub-urban areas

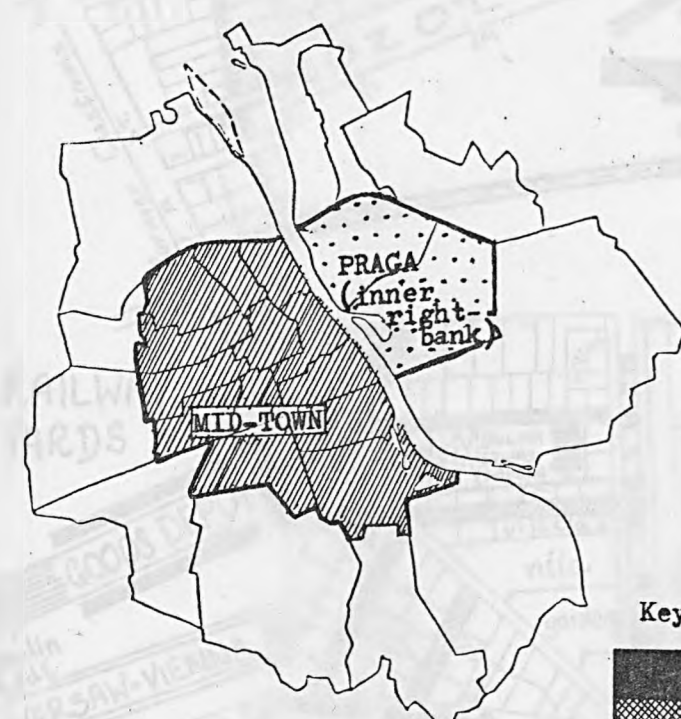


BUILDING DENSITIES (1916 - 1919)

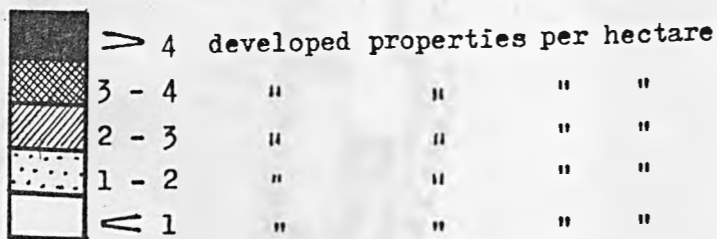
C. According to police district ("okrąg") -Cartogram I-



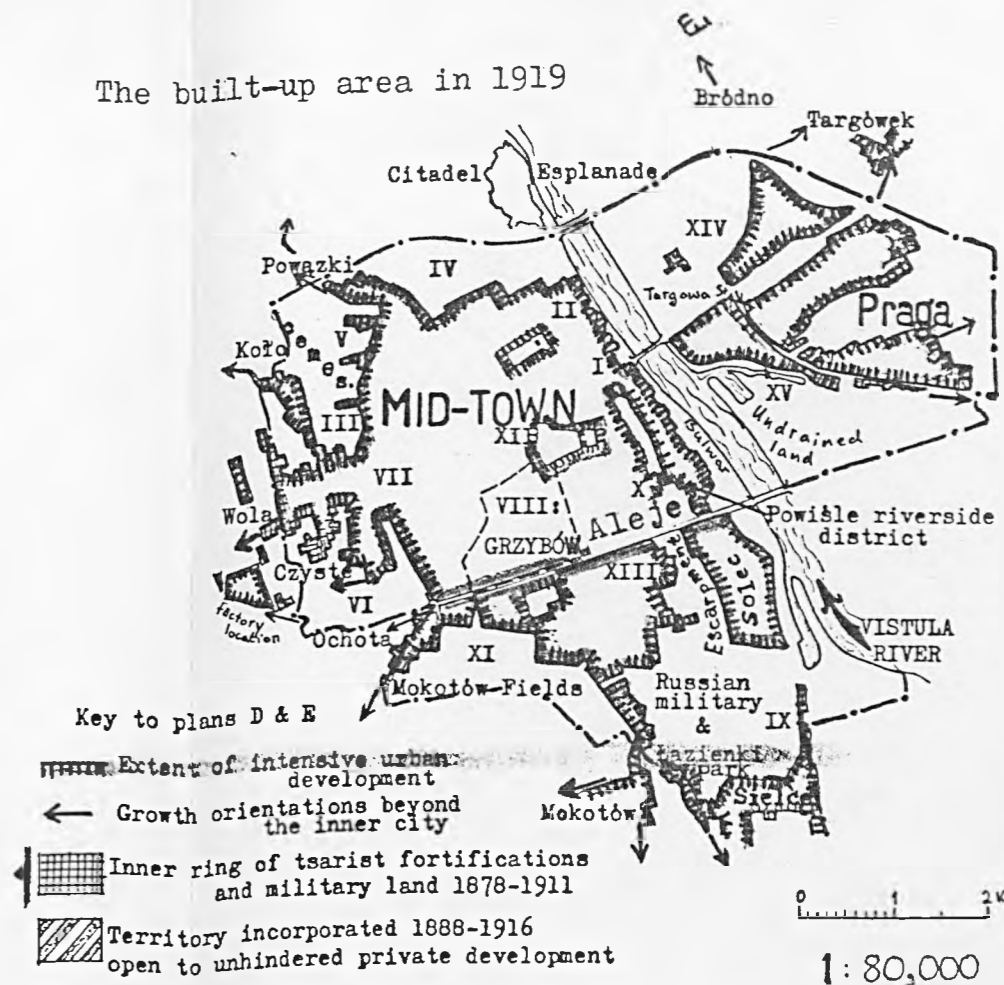
B. Mid-town, Praga and suburban areas



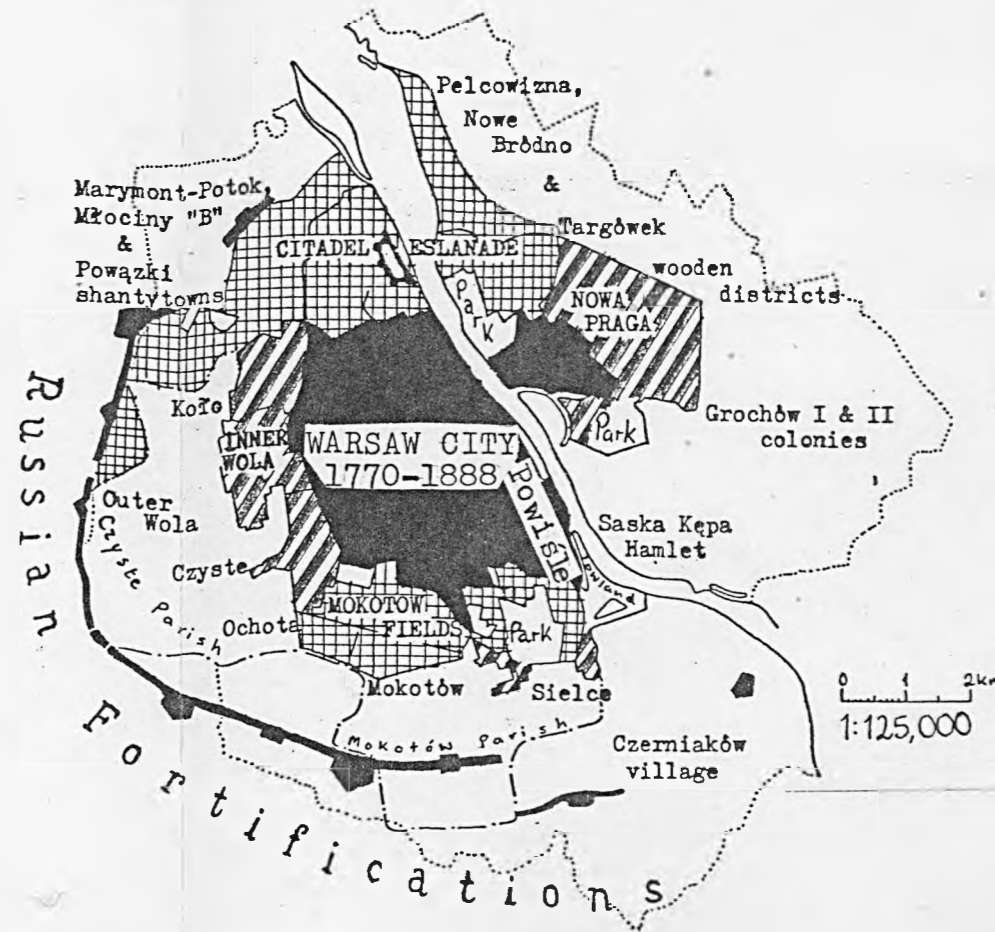
Key to plans A - C



The built-up area in 1919

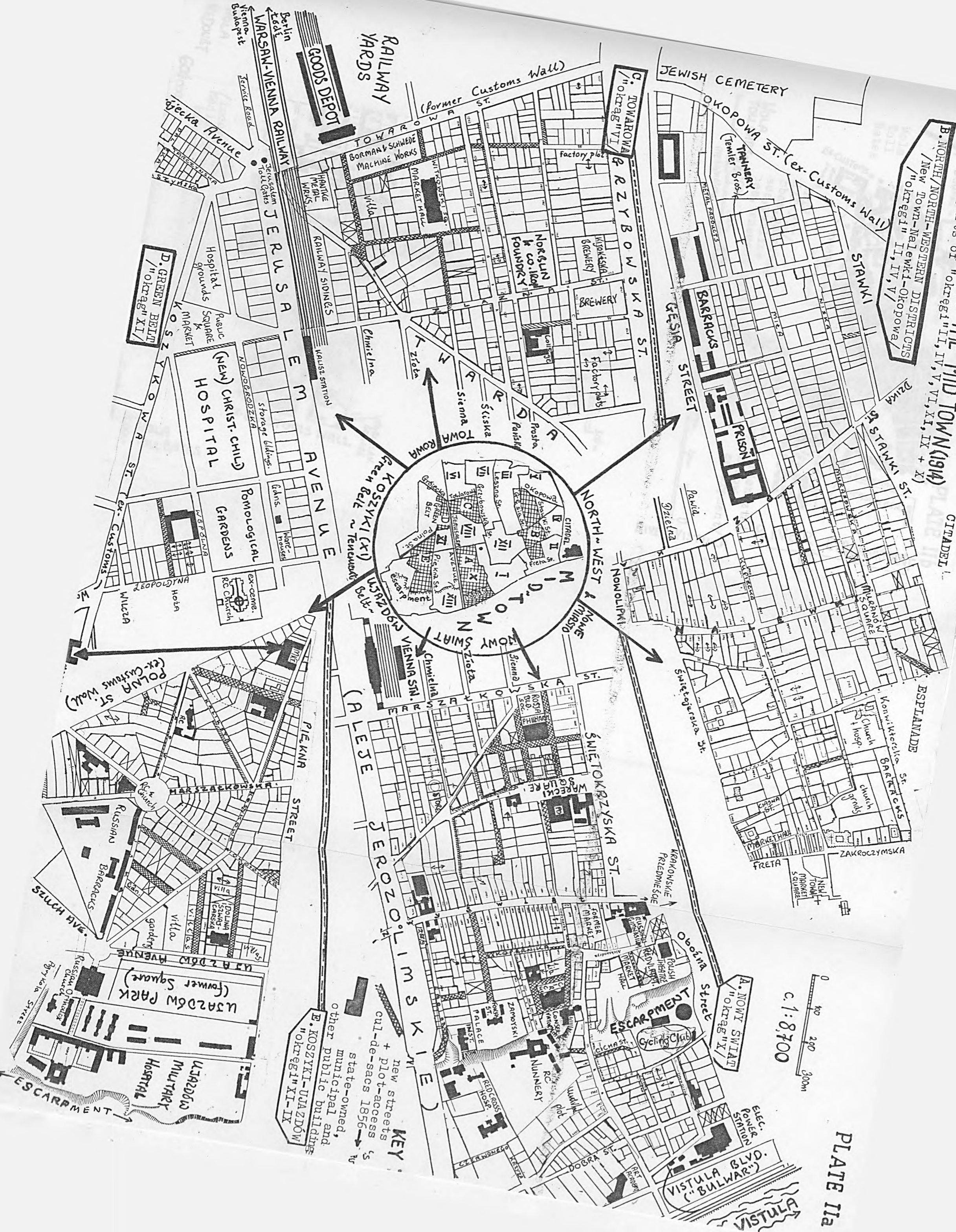


E. Military land and administrative augmentation prior to 1916





**PLOT DIVISIONS IN THE MID TOWN (1914)**  
 (selected parts of "okręgi" II, IV, V, VI, XI, IX + X)  
 B. NORTH-NORTH-WESTERN DISTRICTS  
 /New Town-Nalewki-Okopowa/  
 "okręgi" II, IV, V, VI, XI, IX + X

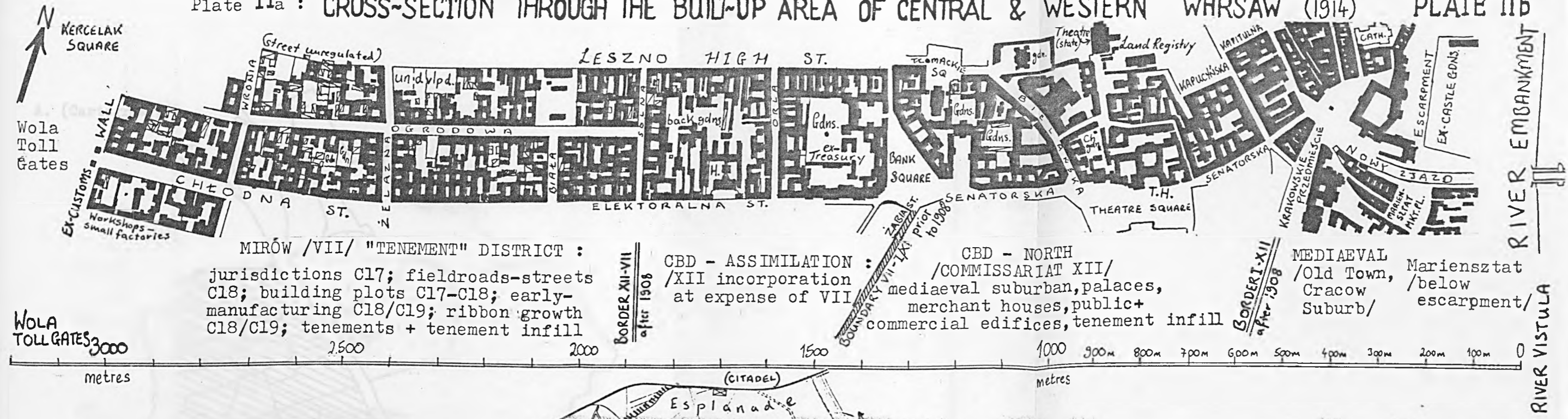


**KEY:**  
 new streets + plot-access  
 cul-de-sacs 1856  
 state-owned, municipal and other public buildings

0 100 200 300m  
 c. 1:8700

PLATE IIa





MIRÓW /VII/ "TENEMENT" DISTRICT :  
 jurisdictions C17; fieldroads-streets C18; building plots C17-C18; early-manufacturing C18/C19; ribbon growth C18/C19; tenements + tenement infill

BORDER XII-VII after 1908

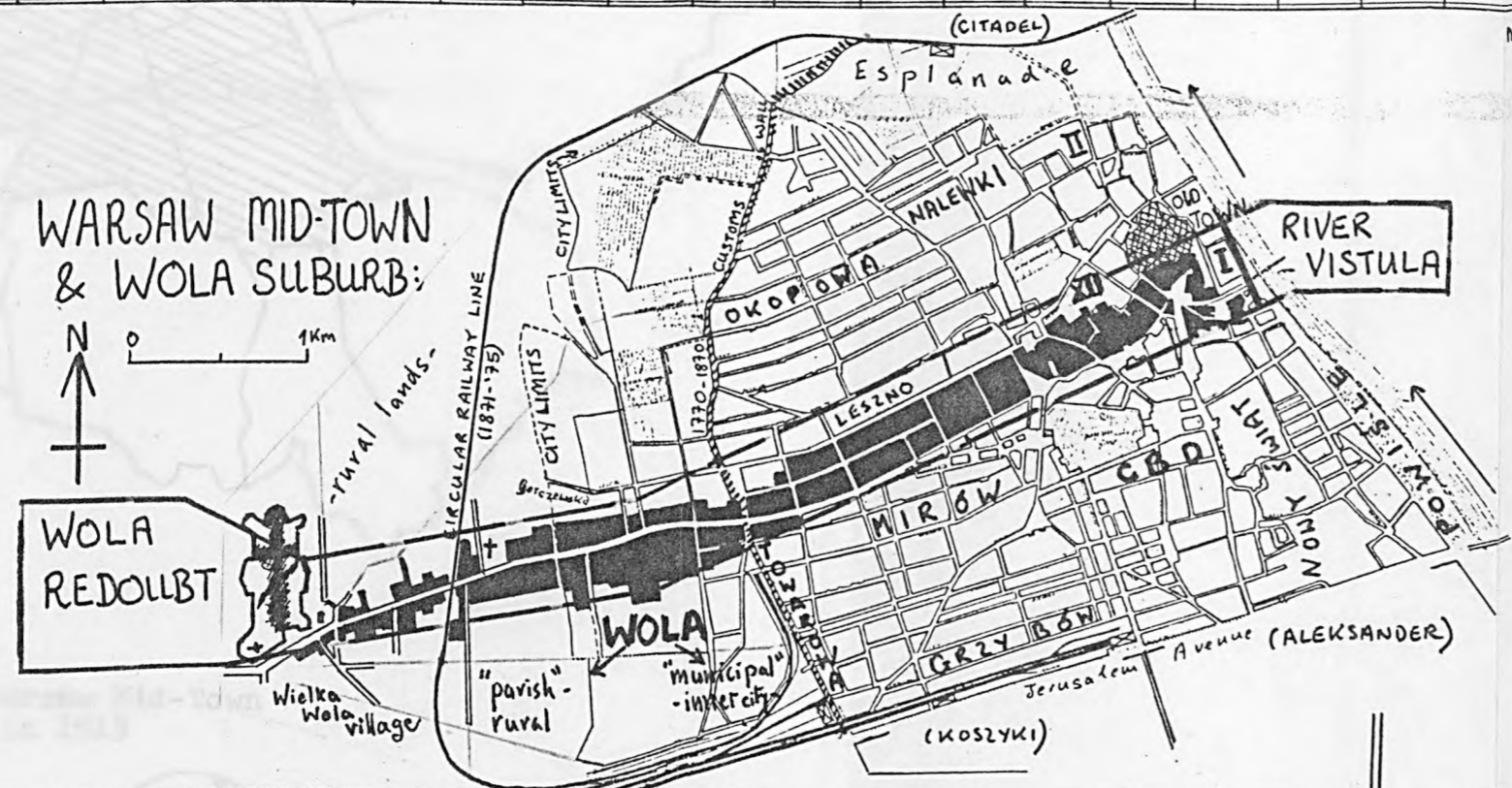
CBD - ASSIMILATION /XII incorporation at expense of VII

CBD - NORTH /COMMISSARIAT XII/ mediaeval suburban, palaces, merchant houses, public + commercial edifices, tenement infill

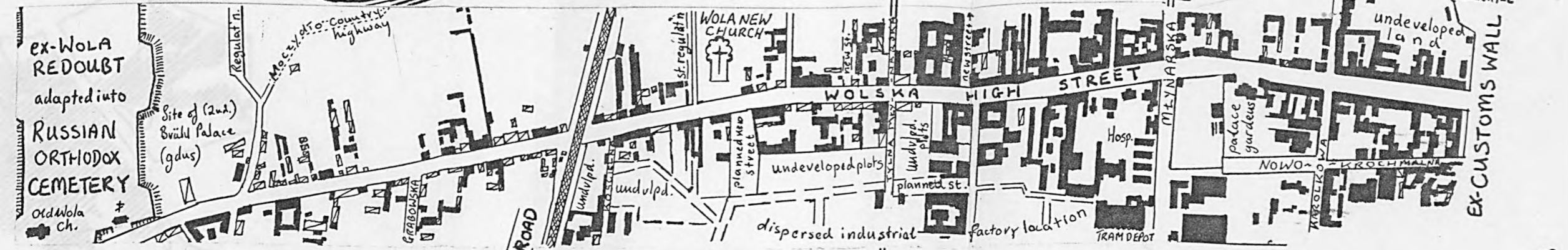
BORDER I-XII after 1908

MEDIAEVAL /Old Town, Cracow Suburb/ Mariensztat /below escarpment/

WARSAW MID-TOWN & WOLA SUBURB:



0 100 200 300m  
 c 1:8,700



WOLA SUBURB/OUTER II/  
 Ribbon development to Wielka Wola /village/, smaller, wooden houses, some farms

WOLA SUBURB/OUTER/  
 City-side of circular railroad, unevolved street plan, tenements, industry, new parish church

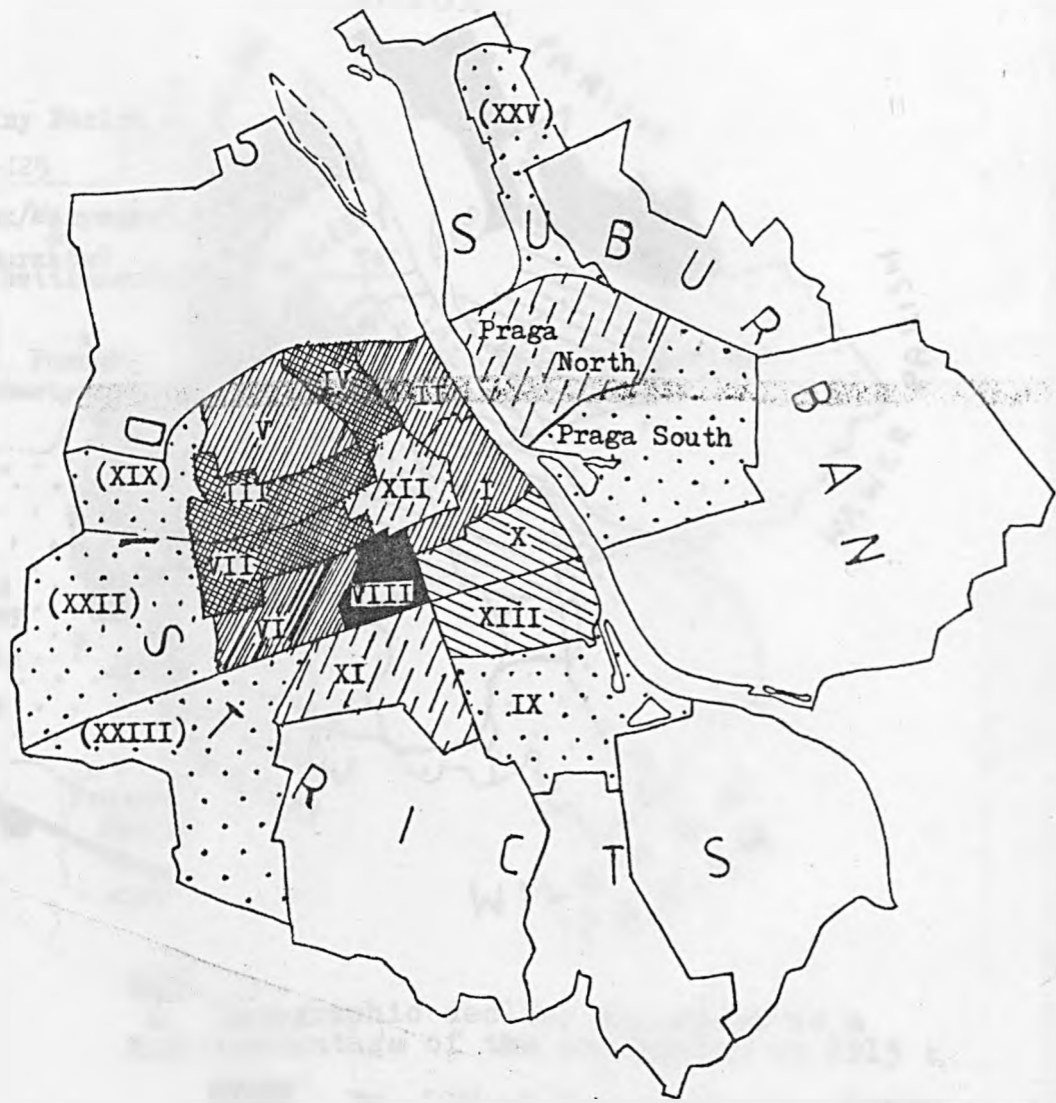
CITY LIMITS 1908-1916

WOLA SUBURB/INNER/  
 /incorporated in stages 1888-1908/ Medium-houses, some barracks-tenements, industrial location and empty plots

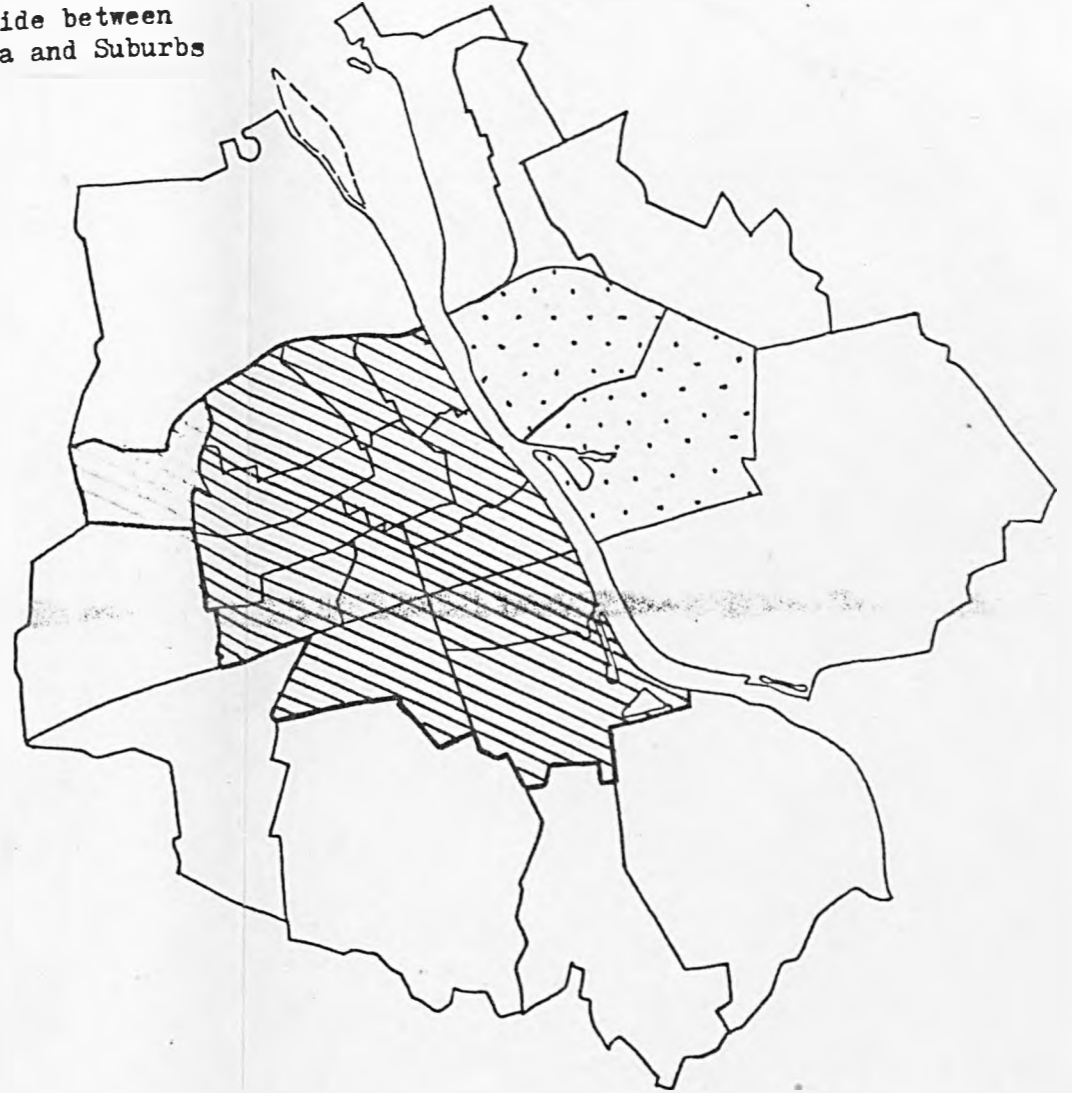
WOLA REDOUBT  
 6000 metres

WOLA TOLL GATES  
 3000m

A. (Cartogram III), Mean number of inhabitants per hectare in 1919



B. Threeway urban divide between the Mid-Town, Praga and Suburbs



C. Built-up area of Warsaw Mid-Town and Praga in 1919

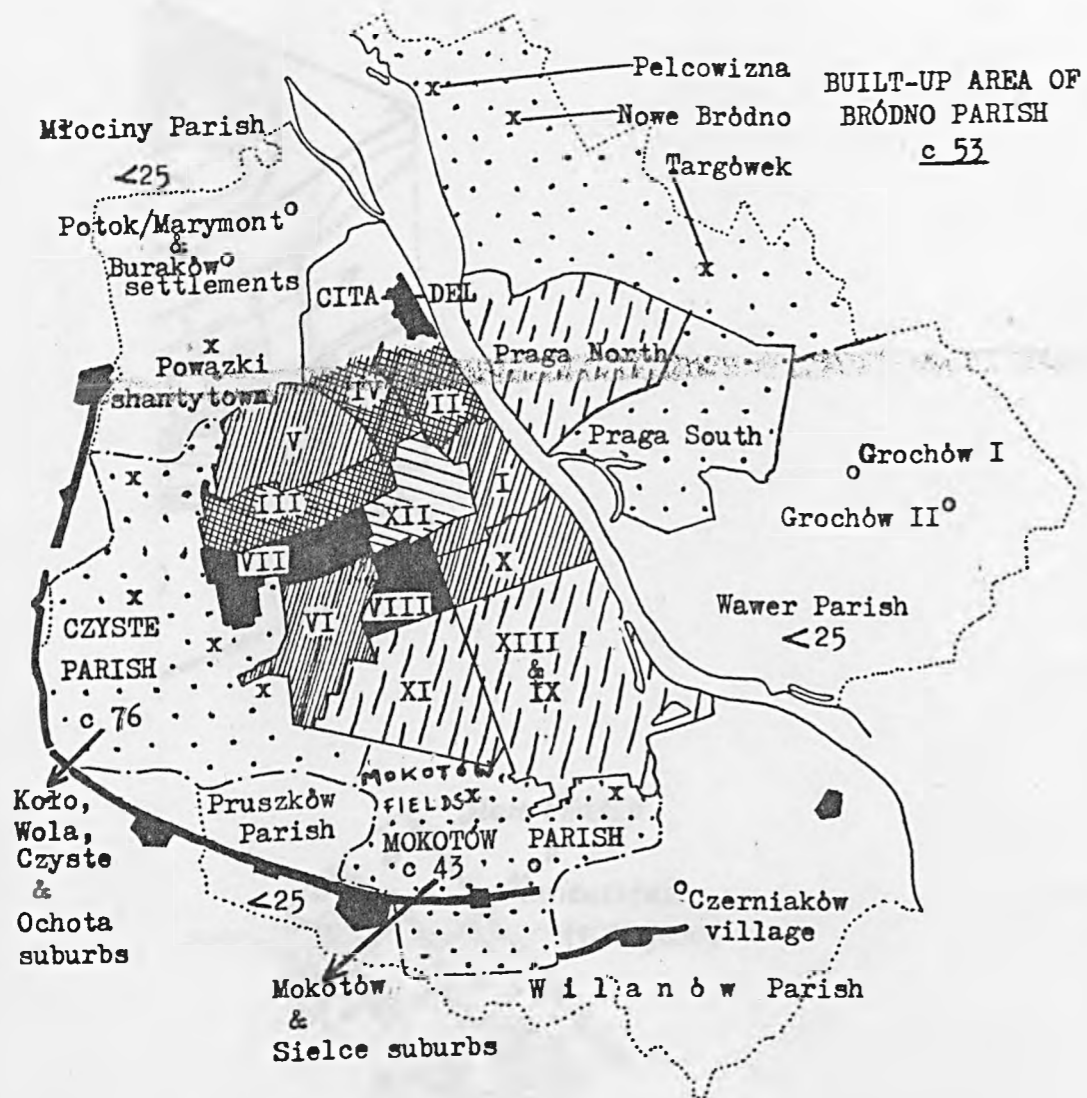


Key to plans A, B and C:

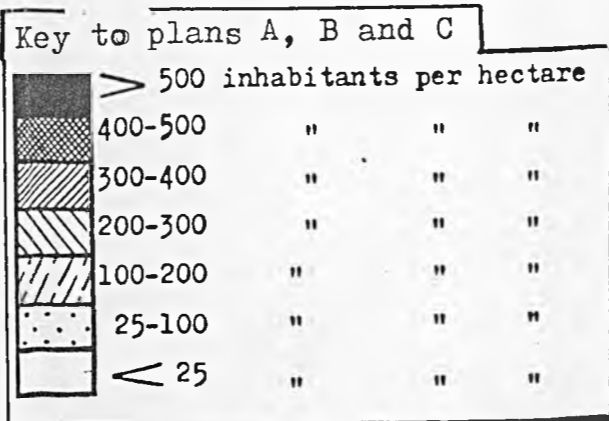
	> 500 inhabitants per hectare		
	400-500	"	"
	300-400	"	"
	200-300	"	"
	100-200	"	"
	25-100	"	"
	< 25	"	"



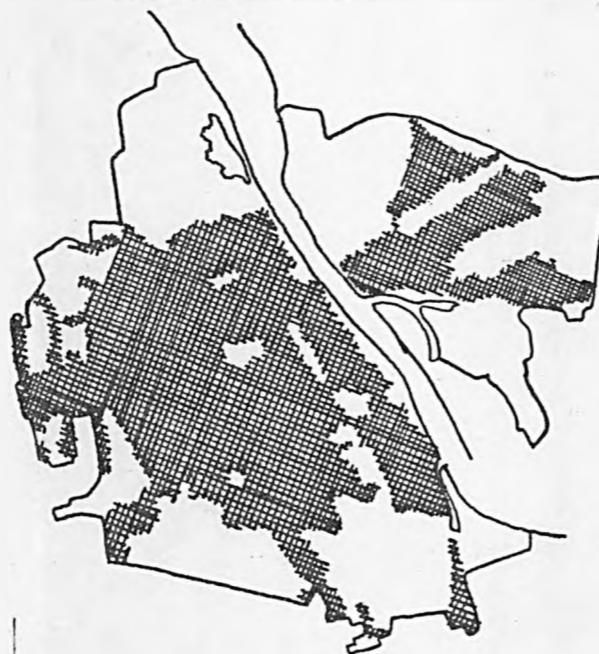
A. Population densities in 1913 according to police district ("cyrkuł") and rural parishes lying within the suburban zone



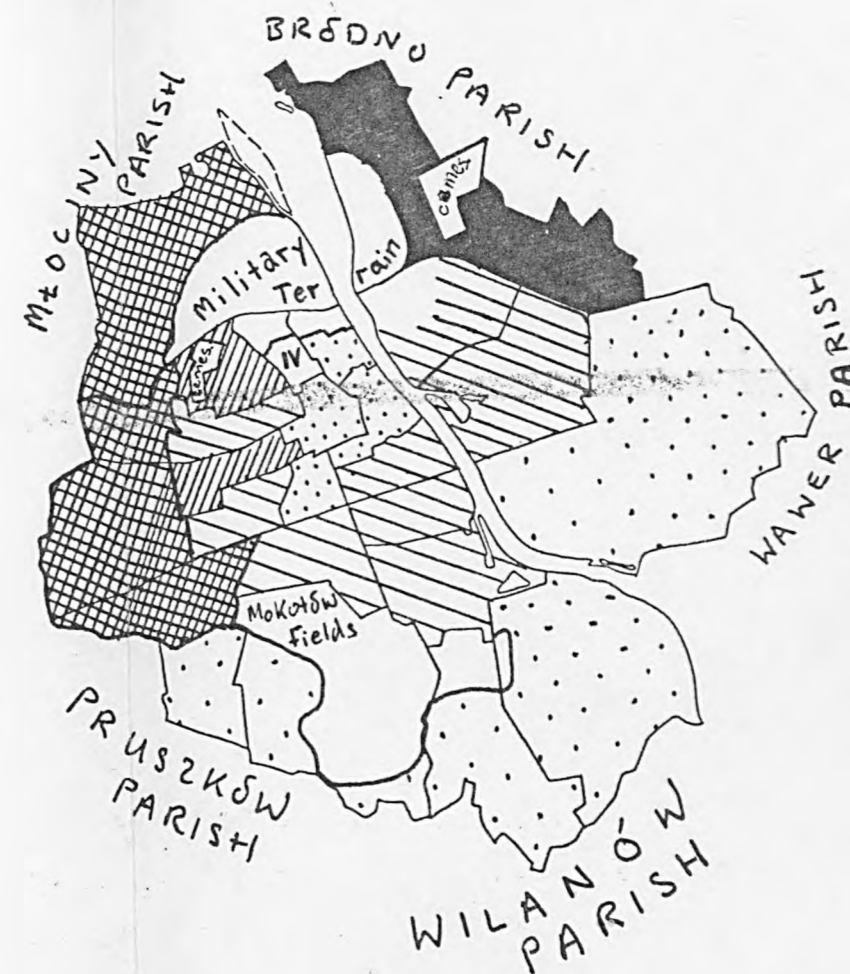
B. Warsaw City and urbanising suburban periphery in 1913



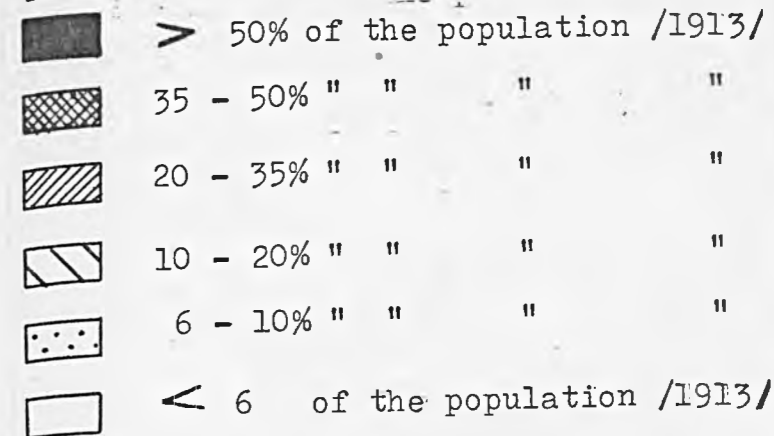
C. Built-up area of Warsaw Mid-Town and Praga in 1913



D. Estimated urban depopulation in Warsaw City and former parishes within the suburban zone /1913-1919/

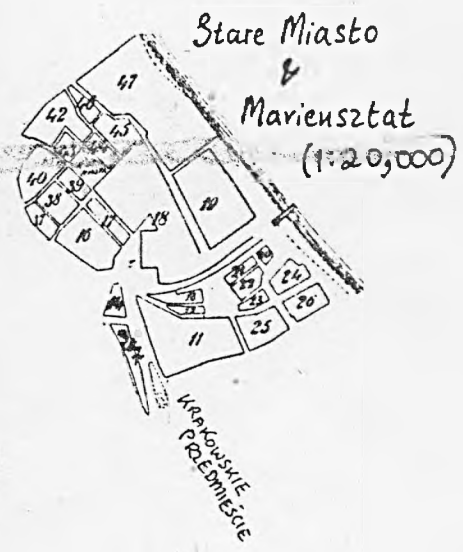
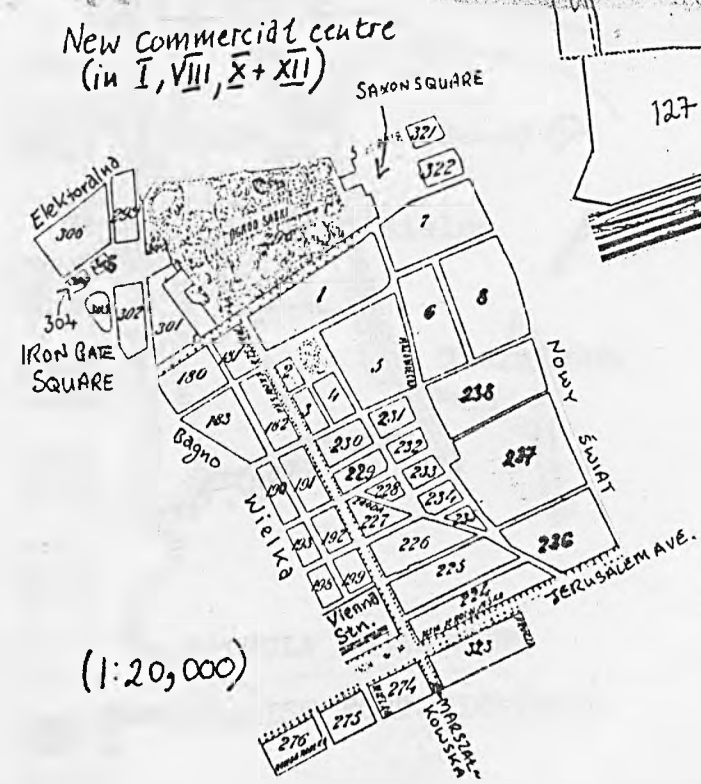
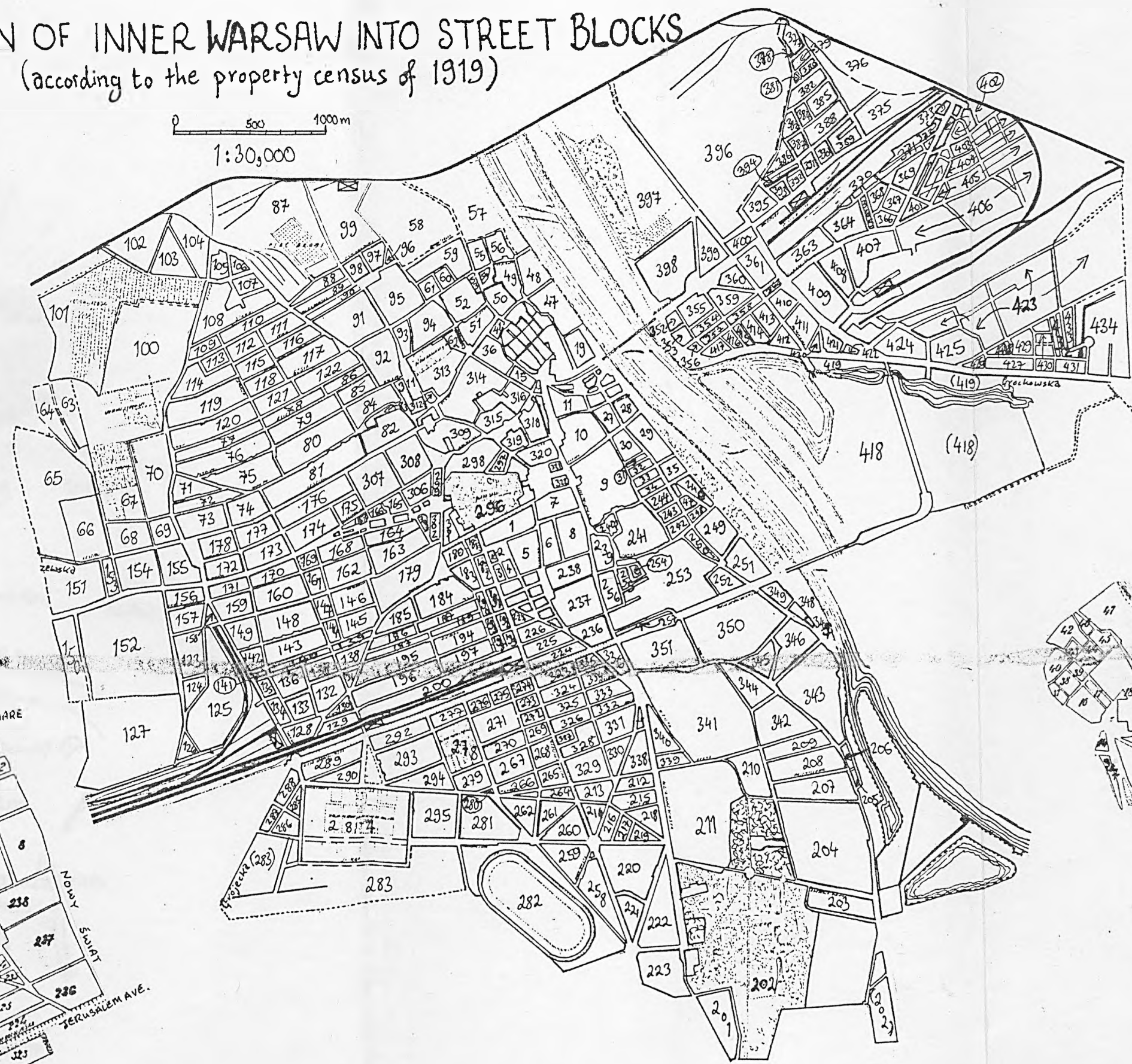
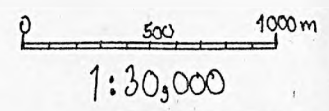


Demographic decline expressed as a percentage of the population in 1913 :

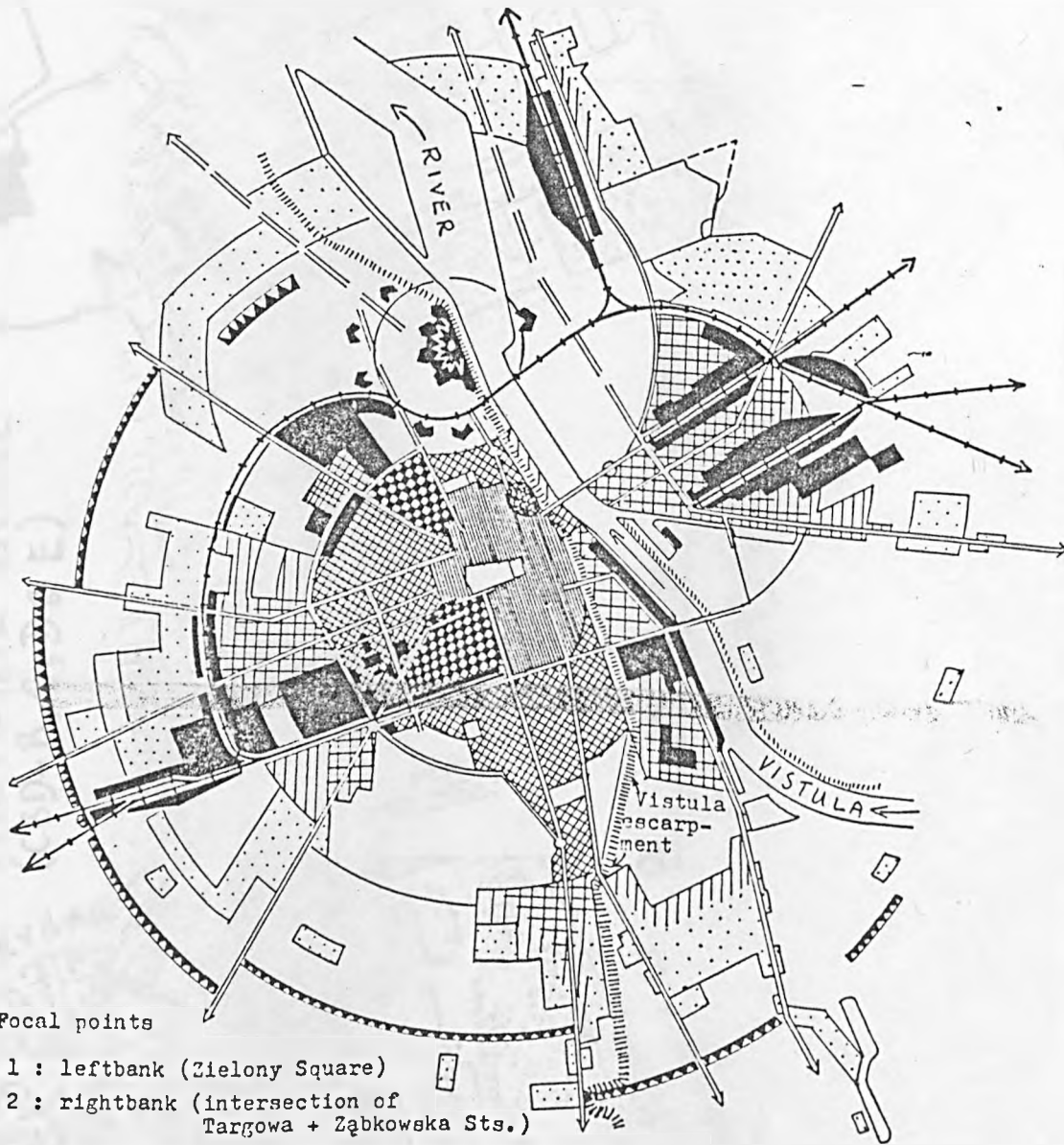


# DIVISION OF INNER WARSAW INTO STREET BLOCKS

(according to the property census of 1919)





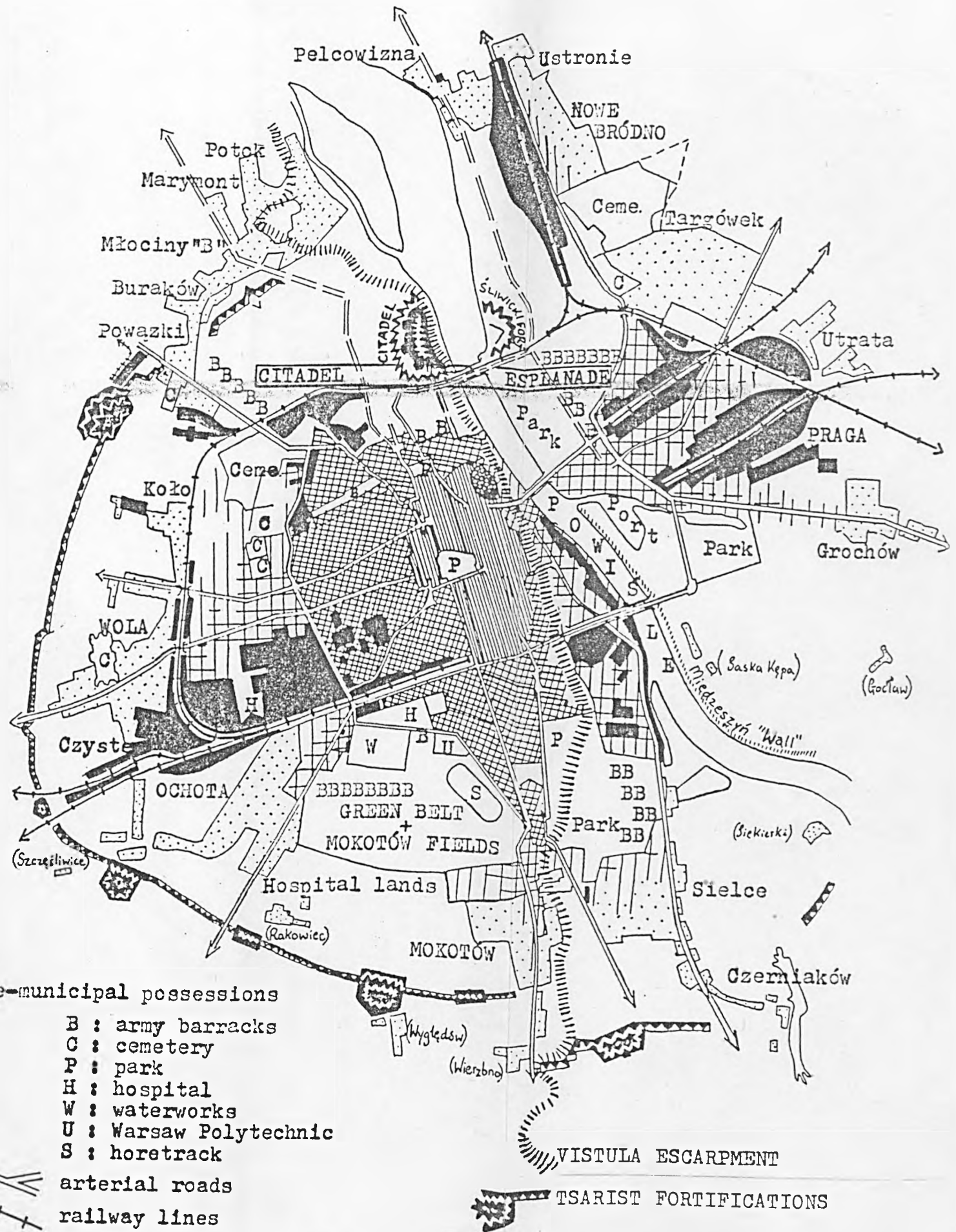


Focal points

- 1 : leftbank (Zielony Square)
- 2 : rightbank (intersection of Targowa + Żąbkowska Sts.)
- 3 : Citadel (blocking of integrated northward growth)

KEY TO FUNCTIONAL ZONES (based on dominant property types and their uses)

- PRE-1860s DEVELOPMENT WITH ADMINISTRATIVE AND BUSINESS QUARTERS ; state-municipal institutions and medium-sized properties, (15-20 apartments) with office, retail and other non-residential premises.
- OLD TOWN, or former mediaeval nucleus ; medium-sized properties, (10-20 mixed-residential flats/premises).
- TENEMENT BELT OF COMPACT, "BARRACKS"-TYPE PROPERTIES ; building complexes of between 21 and c.60 apartments, excluding non-residential commercial or workshop premises ; pockets of smaller residential buildings where industrial location prevails.
- MAŁENKI and GREYDÓW TENEMENT DISTRICTS, ("cyrkuls" IV + VIII) ; "barracks"-type properties (21-c.60 apartments) with a large proportion of retail, office and other non-residential premises.
- MIDDLE-, or INNER-PERIPHERAL, TENEMENT ZONE ; less compact, dispersed "barracks"-type properties (21-c.50 single- or two-room apartments) ; few commercial or non-residential premises, (extending into certain suburban areas).
- OUTER-MIDDLE ZONE OF MEDIUM-SIZED PROPERTIES ; 10-20 residential and mixed-residential, single- or two-room apartments ; housing mainly, or almost entirely, wooden.
- BUILT-UP OUTER-SUBURBAN ZONE ; almost exclusively wooden, medium-sized properties (4-10 residential and mixed-residential apartments), or small, "single-family" cottages (1-3 flats).
- Railway yards and industrial land, with large factory complexes.
- Undeveloped land closed to private building ; military terrain, parks, cemeteries (Christian and Jewish) or public institutions located beyond the central area.



State-municipal possessions

- B : army barracks
- C : cemetery
- P : park
- H : hospital
- W : waterworks
- U : Warsaw Polytechnic
- S : horetrack

- arterial roads
- railway lines

VISTULA ESCARPMENT

TSARIST FORTIFICATIONS



HISTORIC CORE  
(CBD-B, C, D & E)



VISTULA

BUGAS

RYBAKI

KONIK TORSKA ST.

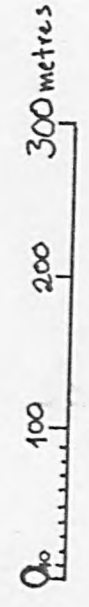
ŚWIĘTO KRZYSKA ST.

PRZEJAZD

GRANICZNA ST.



PLATE V<sup>a</sup>



1:5000



(NEW) CENTRAL BUSINESS DISTRICT:

CBD-A (BANK DISTRICT)  
CBD-F (NOWY ŚWIAT)

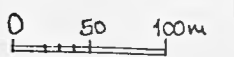
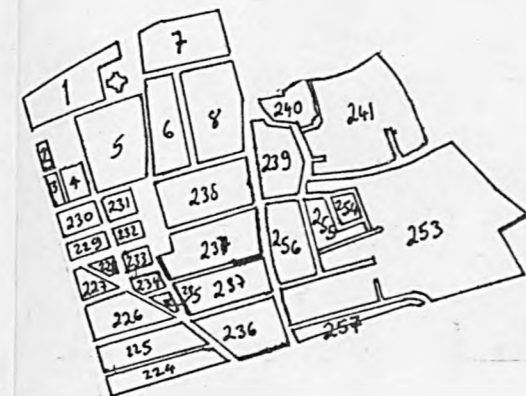


PLATE V<sup>b</sup>  
1:5000



# NALEWKI ~ OKOPOWA (T-3, T-4)

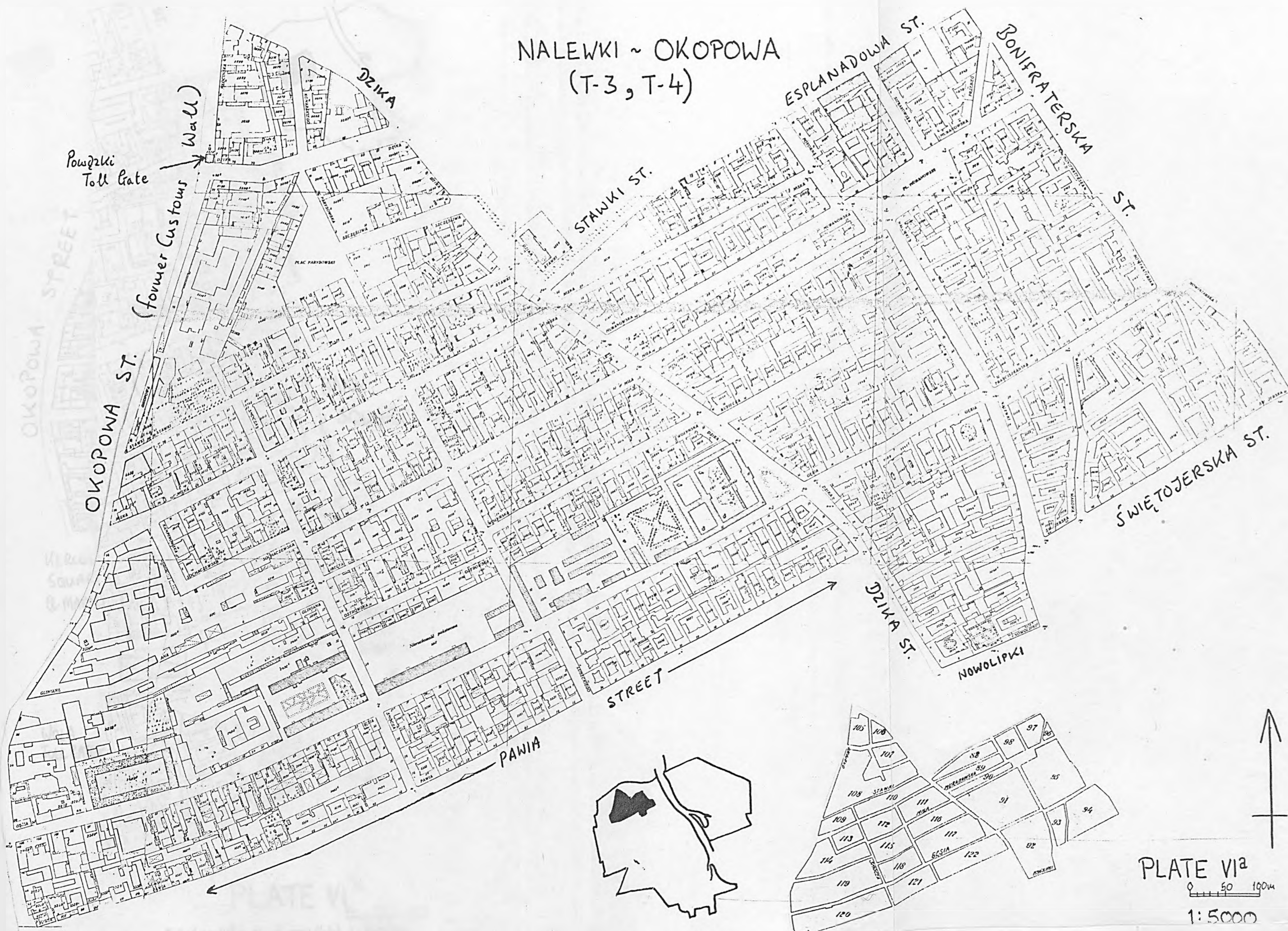
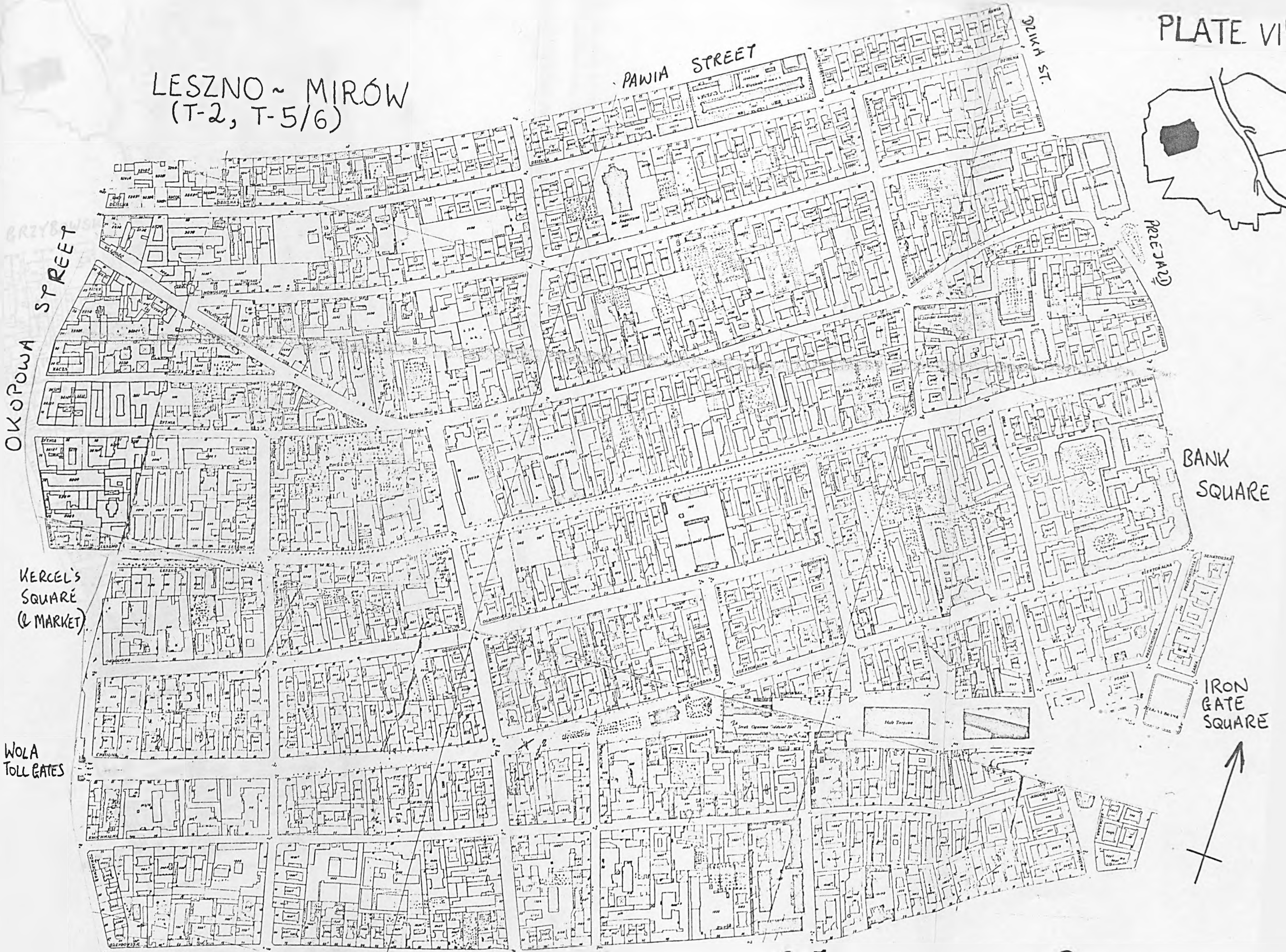
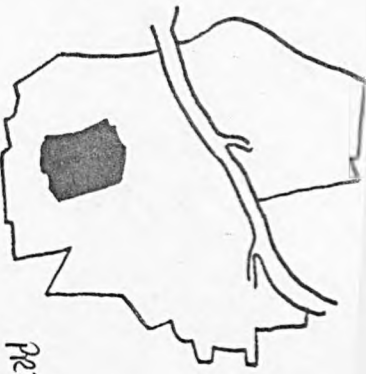


PLATE VIa  
0 50 100m  
1:5000



LESZNO ~ MIROW  
(T-2, T-5/6)

PLATE VI<sup>b</sup>



OKOPOWA STREET

PAWIA STREET

OLIVA ST.

PRZEMIAŁO

BANK SQUARE

WERCEL'S SQUARE  
(MARKET)

IRON GATE SQUARE

WOLA TOLL GATES

GRZYBOWSKA STREET

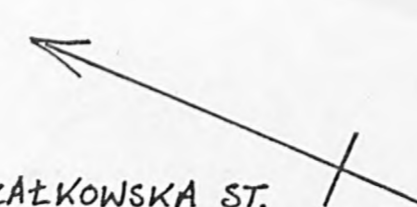
PLATE VI<sup>b</sup>

(cf plate IV<sup>a</sup> for key to street blocks) 1:5000



PLATE VI

MARSZAŁKOWSKA ST.



GRZYBOW & TOWAROWA  
(T-7 & T-8)



GRZYBOWSKA

TOWAROWA

JERUSALEM AVENUE

110	111	112	113	114	115	116	117	118	119	120
149	148	147	146	145	144	143	142	141	140	139
138	137	136	135	134	133	132	131	130	129	128
127	126	125	124	123	122	121	120	119	118	117
116	115	114	113	112	111	110	109	108	107	106
105	104	103	102	101	100	99	98	97	96	95
94	93	92	91	90	89	88	87	86	85	84
83	82	81	80	79	78	77	76	75	74	73
72	71	70	69	68	67	66	65	64	63	62
61	60	59	58	57	56	55	54	53	52	51
50	49	48	47	46	45	44	43	42	41	40
39	38	37	36	35	34	33	32	31	30	29
28	27	26	25	24	23	22	21	20	19	18
17	16	15	14	13	12	11	10	9	8	7
6	5	4	3	2	1	0	0	0	0	0

Street blocks in "arrondissement" XI

289

Nowo Rodzka

292



1:5000





ALEKSANDRYJSKA & POMOLOGICZNA  
(T<sub>9</sub> + T<sub>10</sub> earlier southern-  
Mid-Town development)

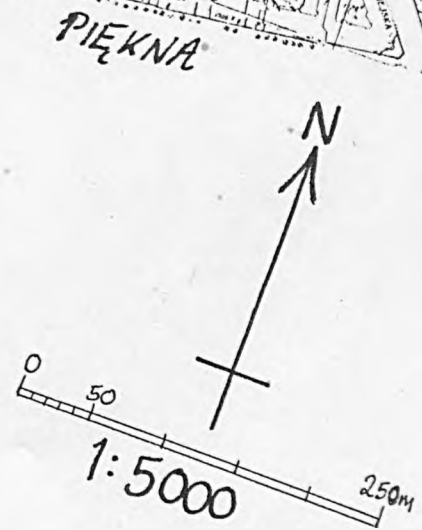
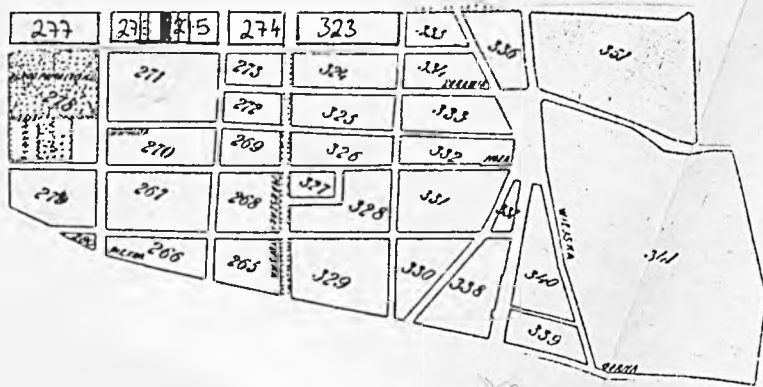


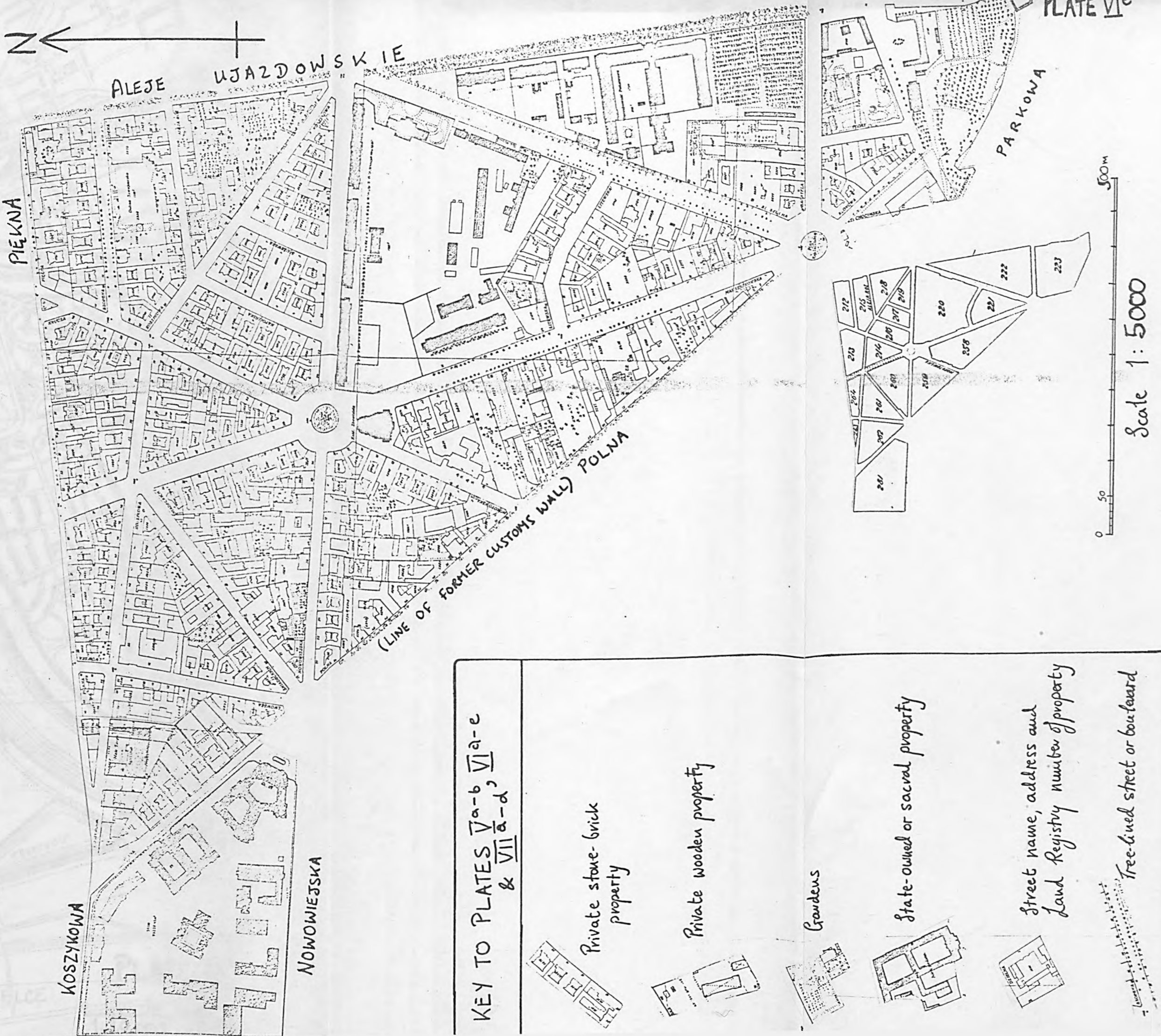
PLATE VI d











# UJAZDÓW ~ SOUTH KOSZYKI

(T-9, T-10 delayed development)



## KEY TO PLATES V<sup>a-b</sup>, VI<sup>a-e</sup> & VII<sup>a-d</sup>

-  Private stone-brick property
-  Private wooden property
-  Gardens
-  State-owned or sacral property
-  Street name, address and Land Registry number of property
-  Tree-lined street or boulevard





City plan from 1935  
(Mid-Town and inner-suburban districts)

PLATE VII

0 200 400 600m  
1:20,000

Sasaka Kępa  
(developed in the 1930s)

PRAGA

Port praski

GROCHÓW

Reservoir

POLE MOKOTOWSKIE

POLE WISZGÓW KONNYCH

Waterworks

MOKOTÓW

SIELCE

POWAZKI

KOŁO

ZOLIBORZ

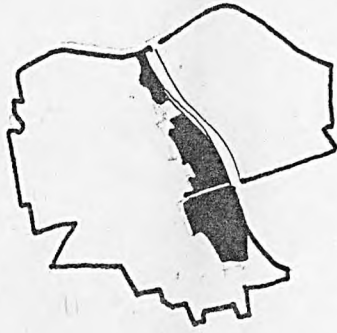
KAMIONEK

KĘPA GO



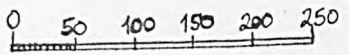
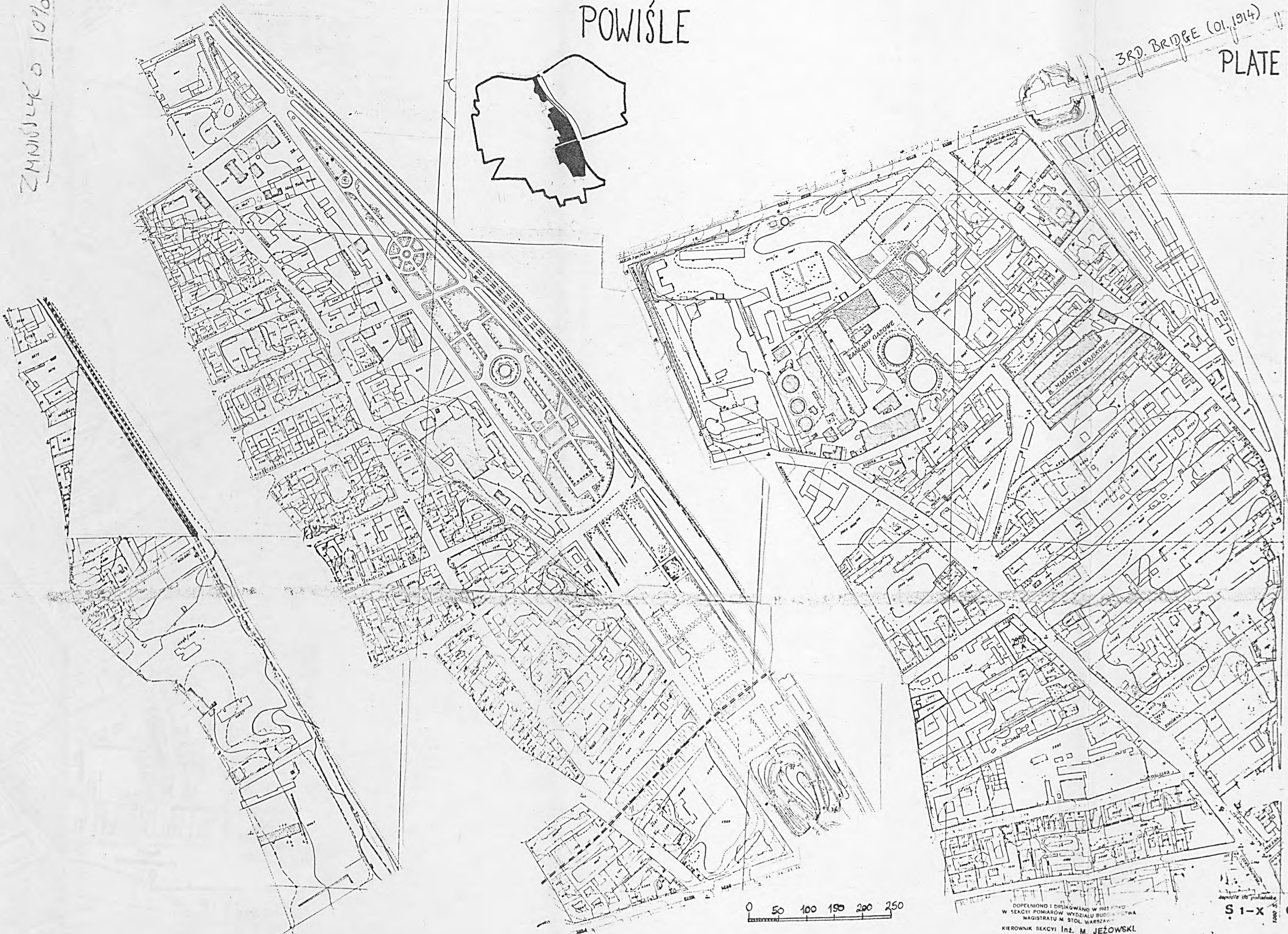
ZMNISZKO 10%

# POWIŚLE



3RD BRIDGE (OL. 1914)

## PLATE VII<sup>a</sup>



DOPEŁNIŁ I DOKONAŁ W 1923 ROKU  
W SEKCJI POMIARÓW WYDZIAŁ BUDOWNICTWA  
MAGISTRATU M. STOL. WARSZAWY  
KIEROWNIK SEKCJI Inż. M. JEŻOWSKI

16  
750 S.  
S 1-X O 1-10

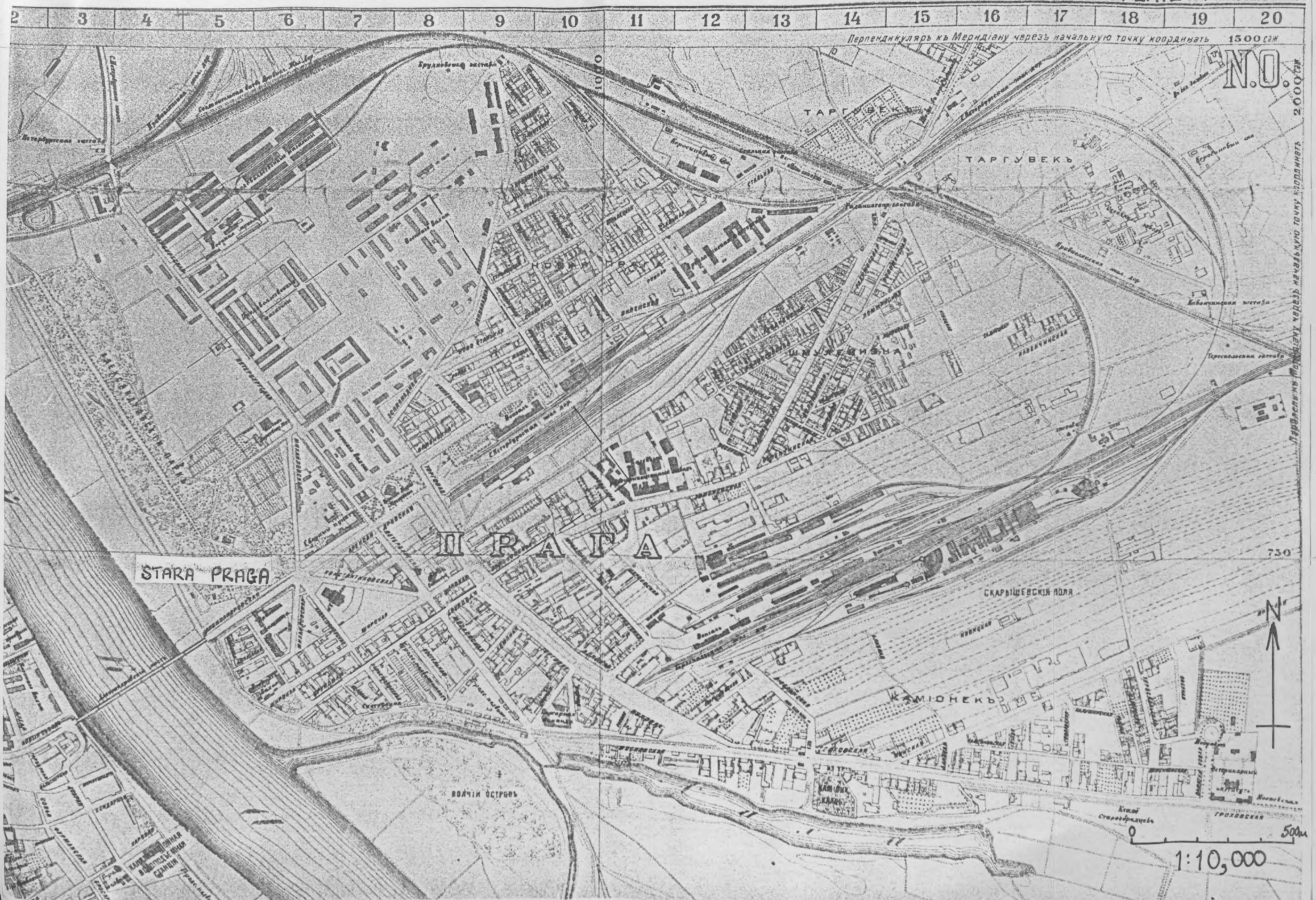


2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Перпендикуляръ къ Меридіану черезъ начальную точку координатъ 1500 саж

N.O.

Перпендикуляръ къ Меридіану черезъ начальную точку координатъ 2000 саж



STARA PRAGA

П Р А Г А

ТАРГУВЕКЪ

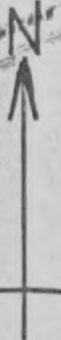
ТАРГУВЕКЪ

СКАРЬШЕВСКІЯ ПОЛЯ

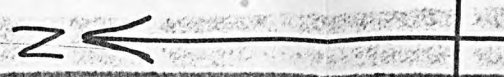
КАМІОНЕКЪ

ВОЛЧІЙ ОСТРІВЪ

1:10,000







ПРЕДМ. ПОВЕДЗКИ

ВОЕННЕ ПОЛЕ

750

ДЕР. КОЛО

ПРЕДМЕСТЬЕ ВОЛЯ

ДЕР. ЧУЧЕТ

ДЕР. ВУЛЯ

1:10,000



# MOKOTÓW



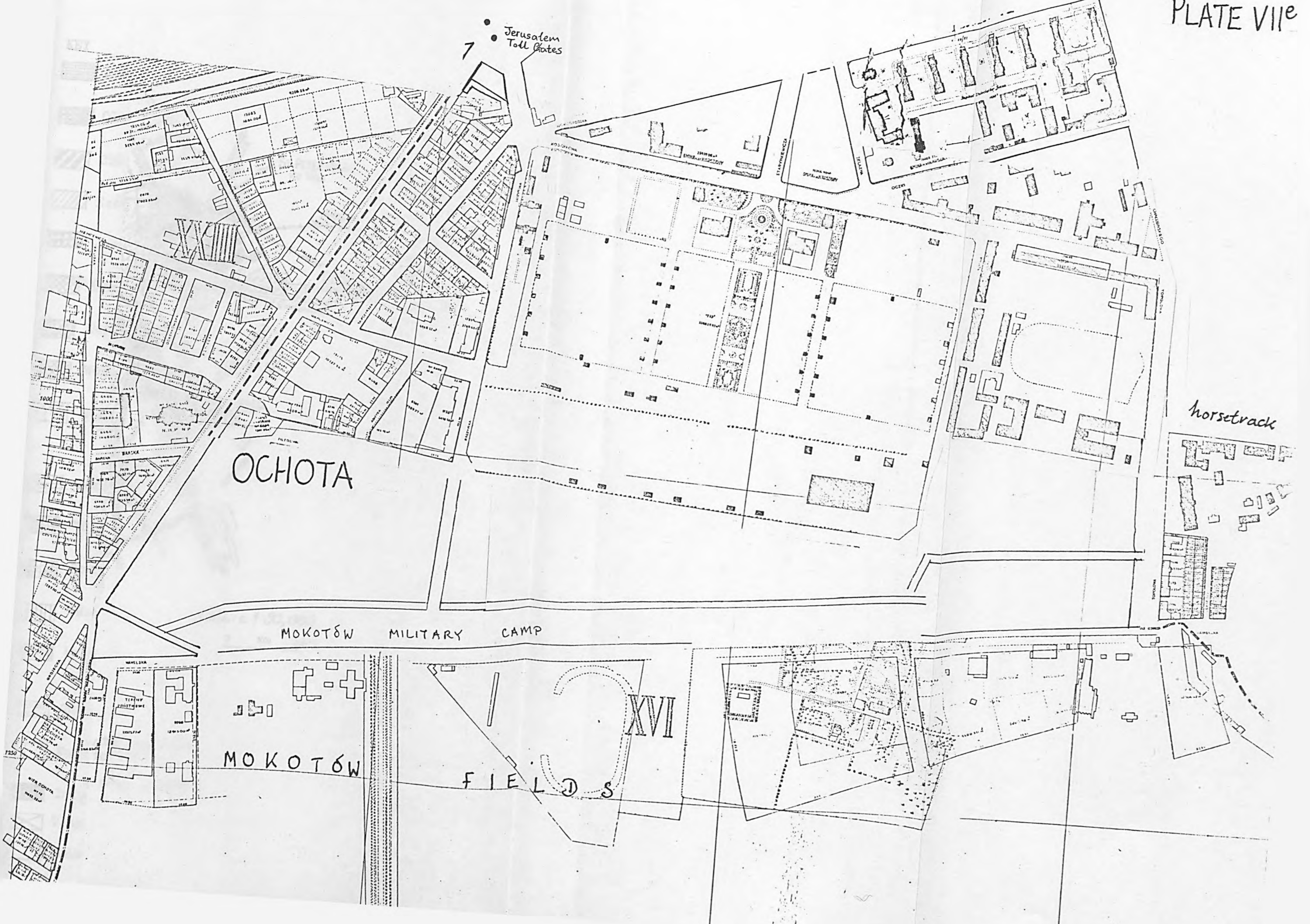
PLATE VII<sup>a</sup>  
1:5000
























# OCHOTA & THE GREEN BELT

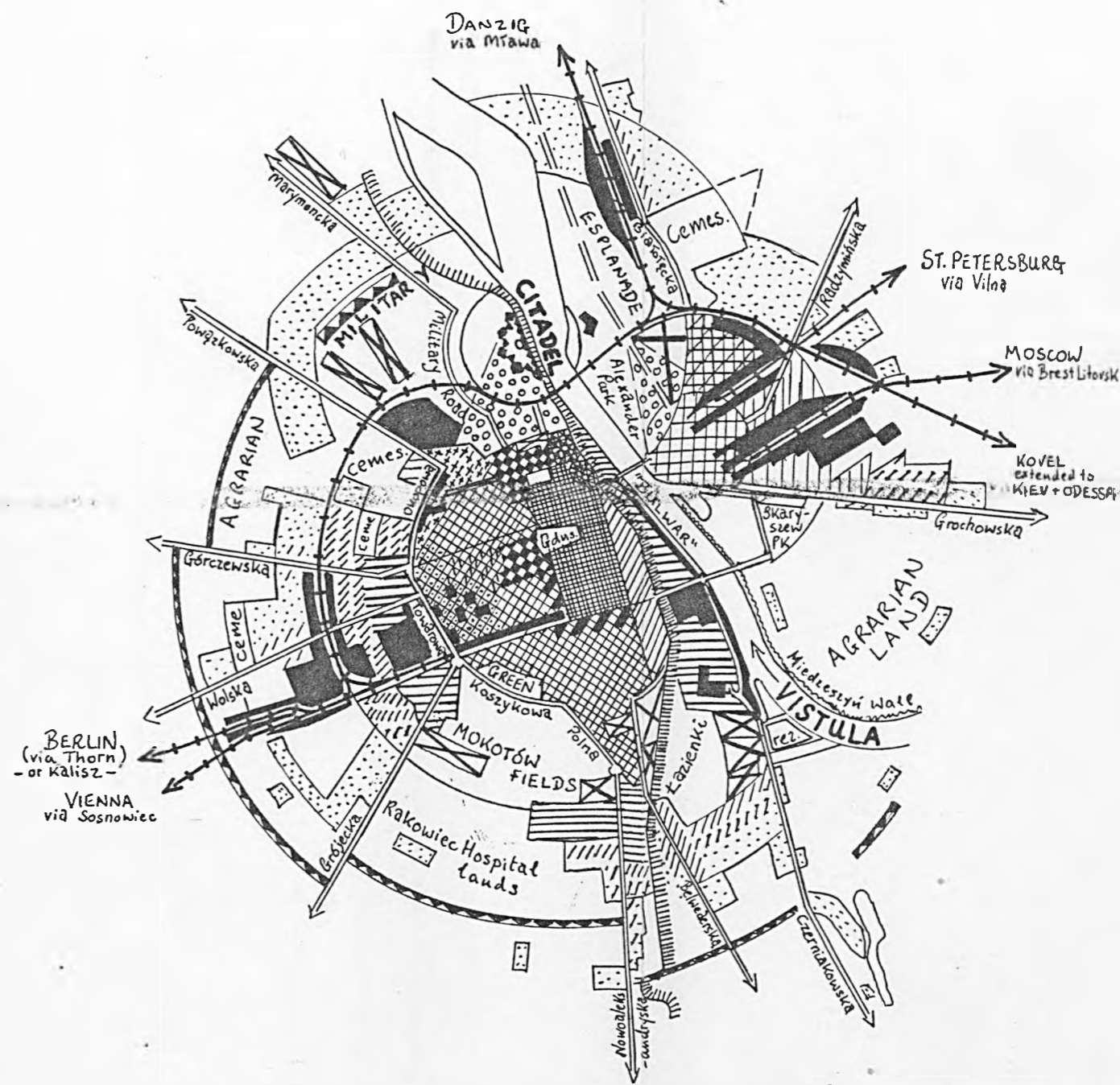
PLATE VII<sup>e</sup>





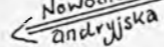
SCHEMATISATION OF ZONING PATTERNS IN THE METROPOLITAN AREA  
(refer to Plate IVb in Chapter 4)

KEY

-  Commercial core - Christian
-  Old and New Towns: CBD discard
-  CBD assimilation in commissariats VIII, XI + XIII
-  Escarpment area: palaces, villas, gardens, public buildings
-  Jewish commercial cores
-  Tenement belt - mainly residential /middle class or lower middle class/
-  Tenement belt - residential + small factory production
-  Working-class housing in the tenement belt /artisanal/
-  Semi-evolved tenement belt within the ex-customs wall (1- or 2-building component houses with wooden outbuildings or wooden tenements)
-  Leftbank inner-peripheral districts and tenement belt assimilation
-  "Old" Praga nucleus
-  Konopaccyzna tenement district /lower middle class + artisanal/
-  "New" Praga districts of semi-evolved tenement development
-  Urban dissolution 1832-1870s : Żoliborz-Fawory + Gołędzinów districts replaced by Citadel + Esplanade
-  Suburban districts of middle-sized stone-brick housing
-  Wooden districts or more dispersed, low density stone-brick housing
-  Industrial land, railway yards, larger factory complexes
-  Tsarist army barracks complexes
-  Undeveloped land: green belt, parkland, gardens, cemeteries, agrarian land, military terrain



Scale: c. 1:30,000  
0 1000 2000 m

-  Tsarist military ring of /inner/ fortifications operating from 1878 to 1911
-  main railway lines laid-out between 1845 + 1878
-  principal arterial roads /named/



KEY

1. HISTORIC URBAN NUCLEUS AND CBD DISCARD
  - 1a - Old Town merchants' houses on mediaeval plots undergoing minor alterations to external pla: "tenementisation" and decline
  - 1b - New Town ex-mediaeval suburb: tenement; infill on pre-industrial era plots, "tenementisation" of former merchants' houses or backbuilding + new storeys
  - 1c - Mariensztat bridgehead: town houses on ex-bridge roads from Cracow Suburb; "small town" houses on the Market Place or side streets being replaced gradually by tenement barracks and warehouses /especially Nowy Zjazd/
2. NORTHERN-CENTRAL WARSAW:
 

Former magnatial palaces, public buildings, merchants' houses along previous arterial roads emanating from the Old Town, or principal sidestreets; tenement infill + backbuildings /various forms/ determined in part by plot size + shape, some replacement of the pre-industrial landscape

  - 2a - Krakowskie Przedmieście, escarpment belt: palaces or representative edifices, gardens and back streets leading to Powiśle
3. NEW COMMERCIAL CORE
  - 3a - Bank District evolving from the mid-1850s /new streets laid out/: banking houses with upper-storey apartments and "elegant" tenements; public buildings
  - 3b - "The New World": merchants' houses on Nowy Świat partially replaced by tenement high-rise /mixed-functional/; E.Chmielna street profile /middle-sized town house + tenement barracks forms 1840s-1914/; consistent tenement development on Widok-Jerusalem Ave.; new commercial district on site of Christ-Child Hosp./office buildings, penthouse flats, cultural institut ns/
  - 3c - New World escarpment development: generally wealthier houses from the 1890s; also some neo-elitist palaces with escarpment gardens /cf. 8b/
4. CHRISTIAN CBD ASSIMILATION:
 

West of Marszałkowska + south of Jerusalem Ave.: elegant shops on ground-floors, increasing nos. of offices replacing residential flats on 1st. + 2nd. floor; tenement house homogeneity originating from the 1860s with later, higher forms /typically 4 building components + central courtyard/
5. JEWISH COMMERCIAL DISTRICTS
  - 5a - Nałewki + neighbouring parts of New Town; deep plots accommodating courtyard trading emporia, craftsmen's workshops, originating from the early-C19; Nałewki Street profile as reminiscent of Nowy Świat, outbuildings raised, extended + heightened; adaptation and intensification rather than demolition and replacement
  - 5b - Jewish CBD assimilation: certain street blocks + trading emporia where orthodox + assimilating Jewish traders, bankers etc. lived or operated
  - 5c - Żelazna Brama /Iron Gate/ and Grzybów squares-quarters; Jewish trading + financial activities concentrated on and in the vicinity of these squares /markets, bazaars/; successive occupation or originally developed properties from the mid-C19, gradually giving way to tenement replacement or fronting tenement outbuildings; consistent street profiles of Iżozna + Mariańska
6. THE WESTERN DISTRICTS
  - 6a - Mirów: tenement homogeneity interrupted by older building forms + the accommodating in outbuildings of small-industrial/manufacturing firms; phases of development traced back to late C18; eg Solna street profile of groundfloor, 1-, 2-, 3-, 4-, 5-, 6-floor houses; hinter development + changes in social structure "behind" the southern extension of Żelazna St.
  - 6b - Towarowa tenement + factory landscape: artisanal/lower MC housing from 1870s onwards with similar pattern of increasing building heights; increasingly proletarian social structure "behind" southern extension of Żelazna St.
  - 6c - Grzybów residential tenement district: comparatively consistent tenement development + heights; vertical + horizontal variations in social composition.
7. JEWISH RESIDENTIAL IN OKOPOWA AND LESZNO COMMISSARIATS
  - 7a - tenement consistency in the vicinity of Leszno + Nałewki/Dzika streets giving way to increasing medium-sized or crowded housing to the West; comparison of Gęsia + Chmielna street profiles?
  - 7b - "Proletarian" Jewish Warsaw: dispersed, often wooden housing north of Niska-Gęsia and west of Smocza-Nowokarmelicka streets in Okopowa; 3-storey wooden tenements may be identified from old photos; especially on Wołyńska St.
  - 7c - a belt of factory location on the ex-customs wall side of Okopowa St.: Polish working classes mixing with the Jewish proletariat
8. THE SOUTHERN DISTRICTS
  - 8a - consistent tenement development in Aleksandryjska + Pgmological quarters: 1860s /prototypes/, 1870s /3- or 4-floor uniformity/, 1890s /remaining "virgin" land/ and early-C20 /subdividing of gardens, increasing heights/; solidly Catholic + MC, including lower MC + attic living; 2 large churches
  - 8b - escarpment: private gardens, exclusive villas + some palaces + public buildings, blocking urban development behind S.Nowy Świat/Więjska streets /a private green belt/
  - 8c - mixed tenement /palatial/ + villa development in Aleksandryjska, spreading southwards along the "avenue" into Ujazdów district; inhabited by the social elite, together with those of 8b, 3c and 3a
  - 8d - southward spread of tenements in Koszyki + Ujazdów in 1890s + early-C20 /except Piękna St./; multi-storey, eclectic, art-nouveau or modernist frontages, a 3rd.RC church; new streets laid out as a preliminary step towards development + in the southward spread to Mokotów /Marszałkowska St/

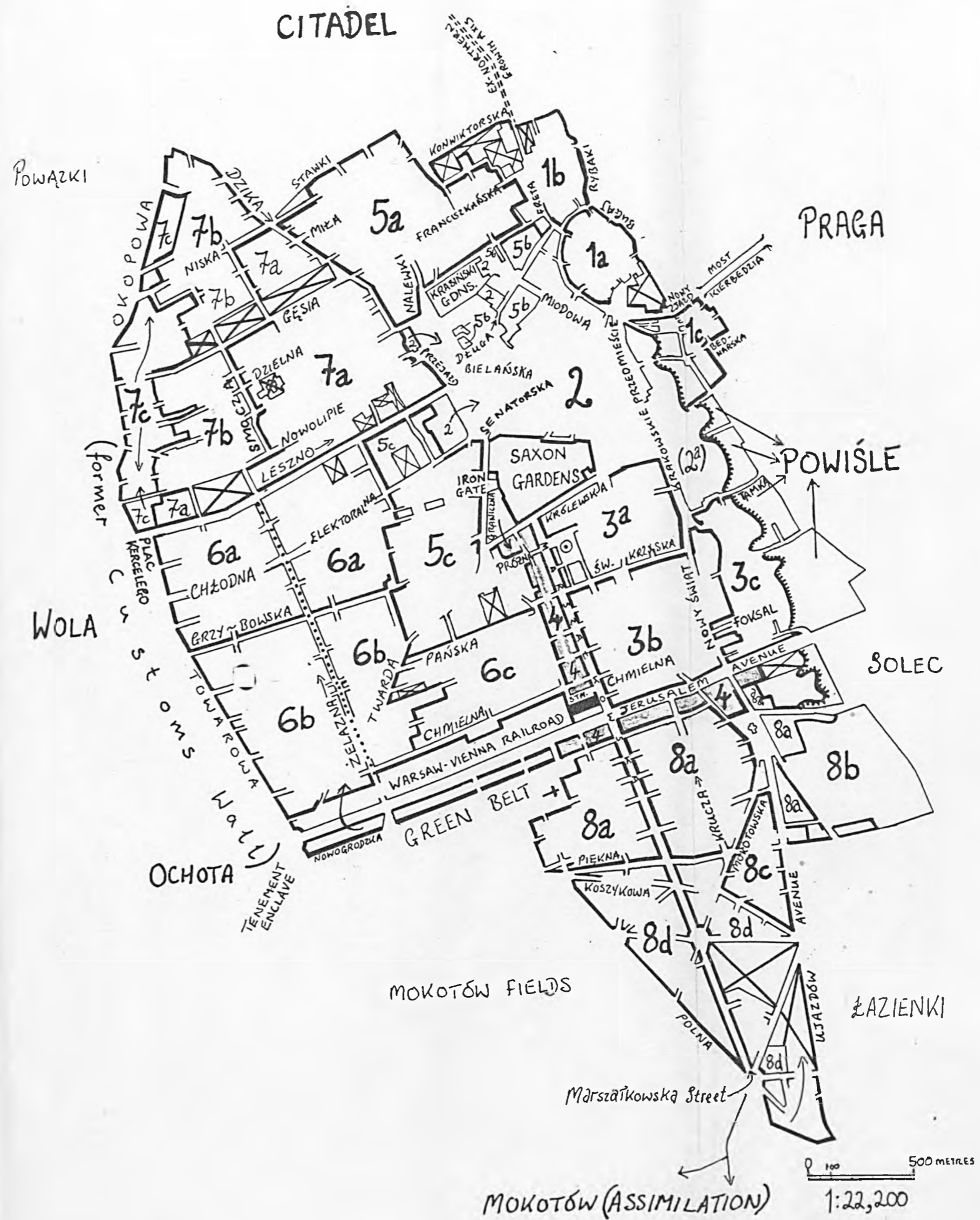




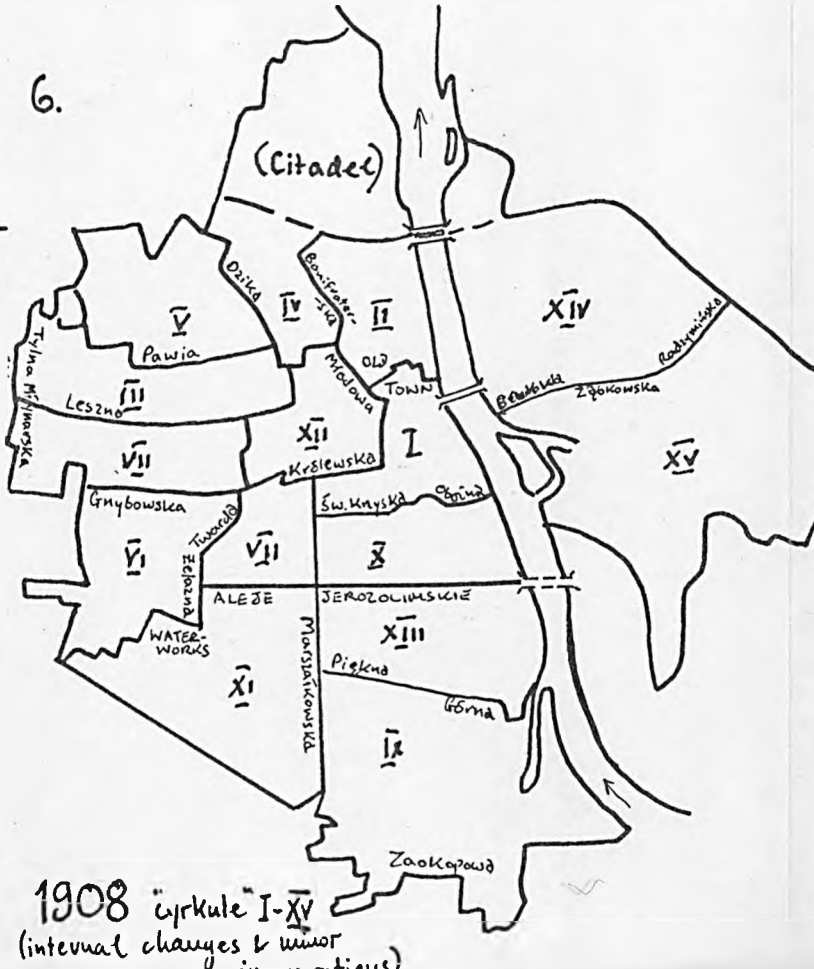
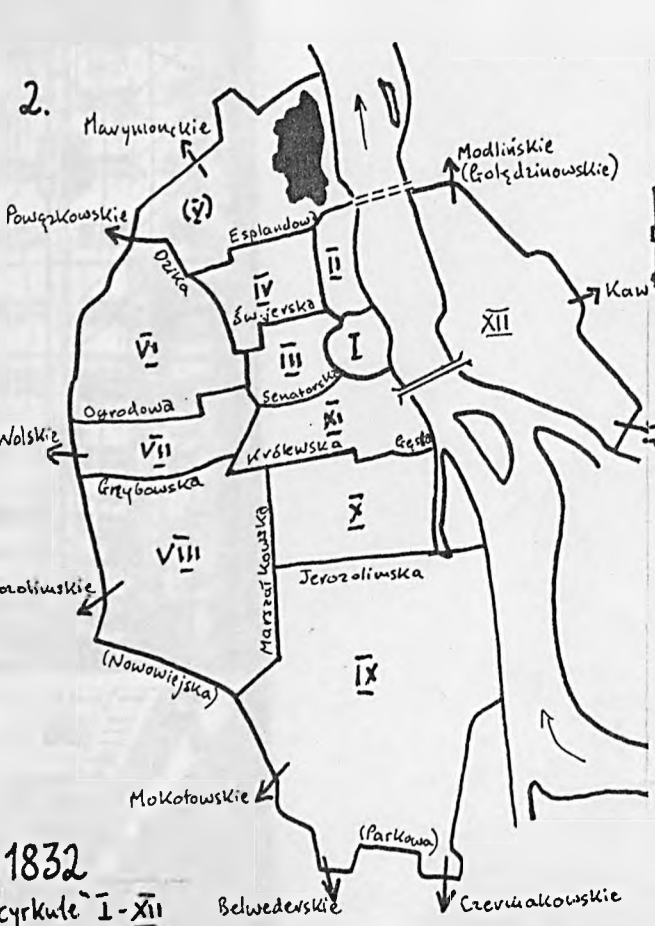
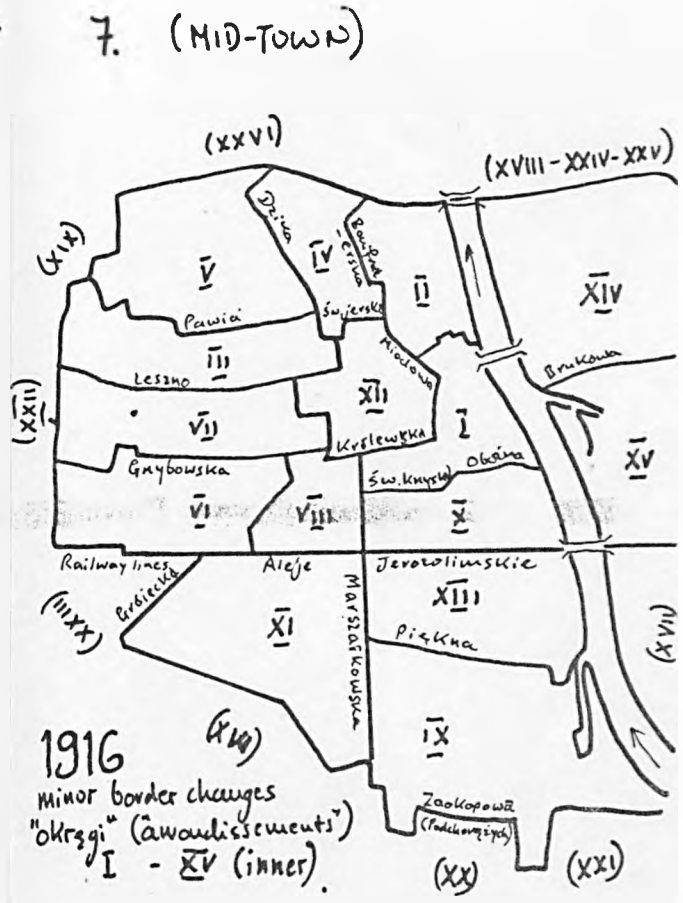
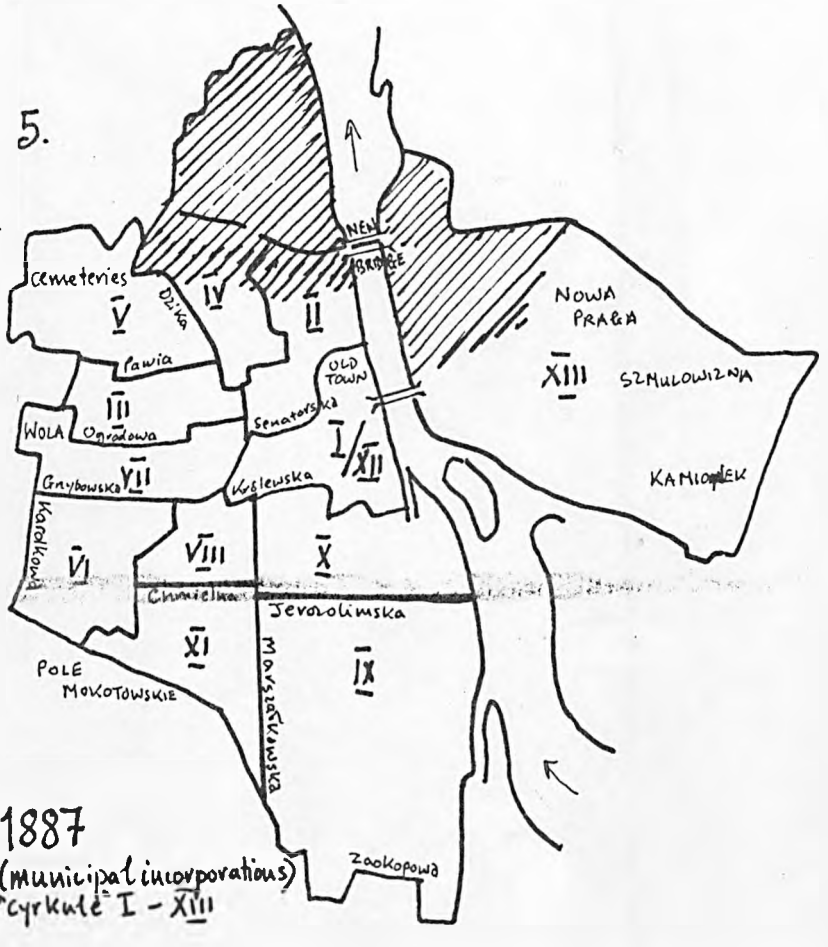
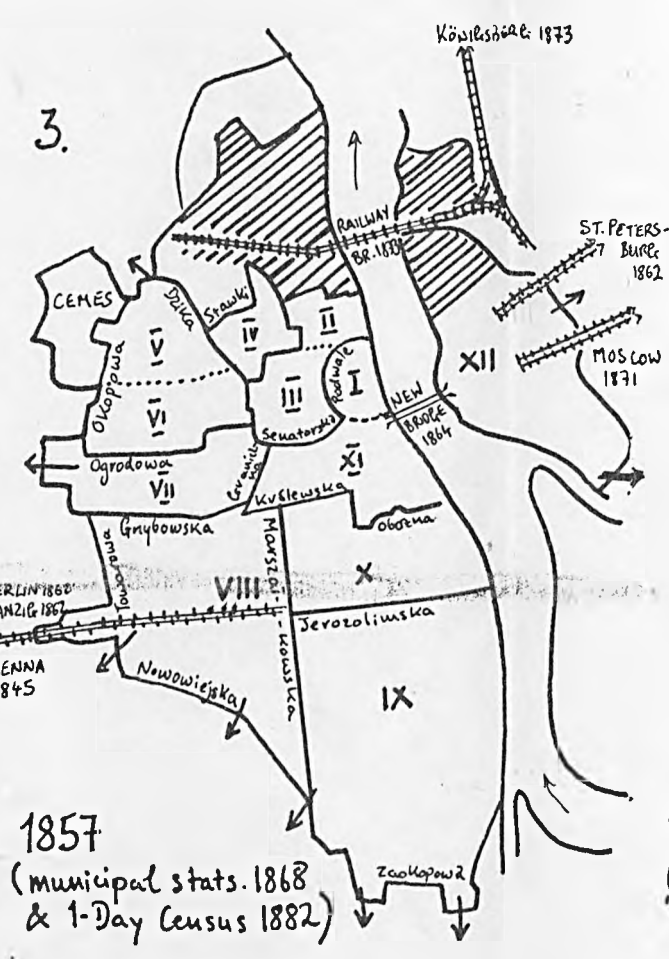
PLATE IX



REVISED ENGINEER-OFFICERS' CORPS PLAN FROM 1867 (directed by J. Koriot) 500r  
Scale 1:8,300 (reduced from original scale of 1:4200)

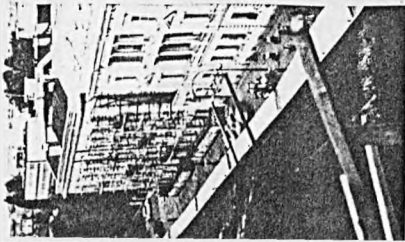


THE MUNICIPAL DISTRICTS OF WARSAW'S MID-TOWN & PRAGA "SUBURB" 1791-1951





a



1b

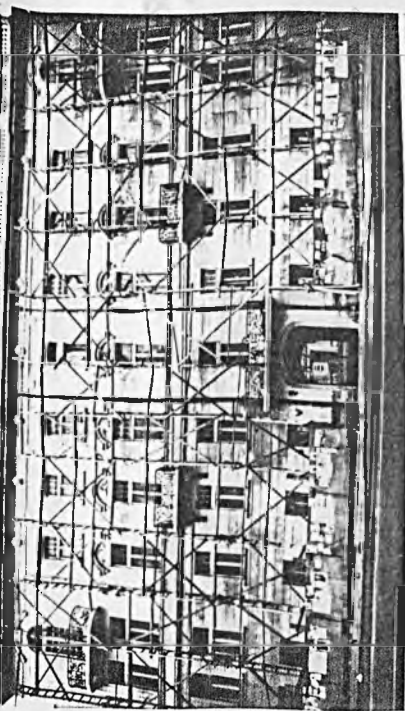
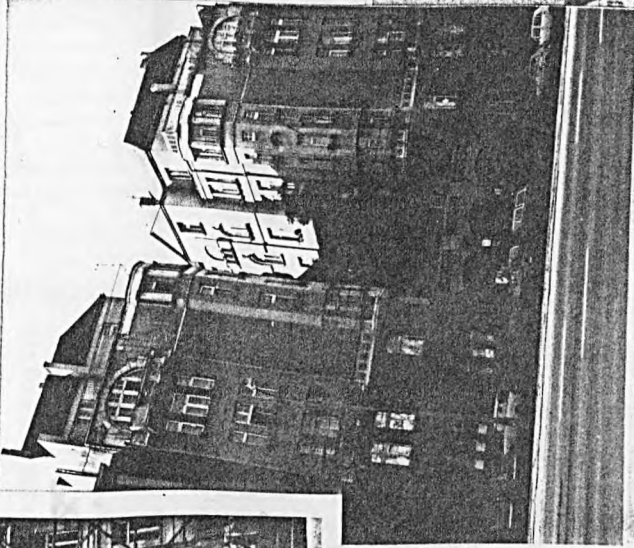


Figure 3.8:

ILLUSTRATIONS TO  
PLATE X<sup>b</sup>

1a



KEY - according to  
Land Registry No.

1a.-c: no. 1669

(Al. Mjadzowski 37)

2. no. 1618E

(Zurawia 26)

3. no. 6418

(Smolna 34)

4a.-b: 1582E9

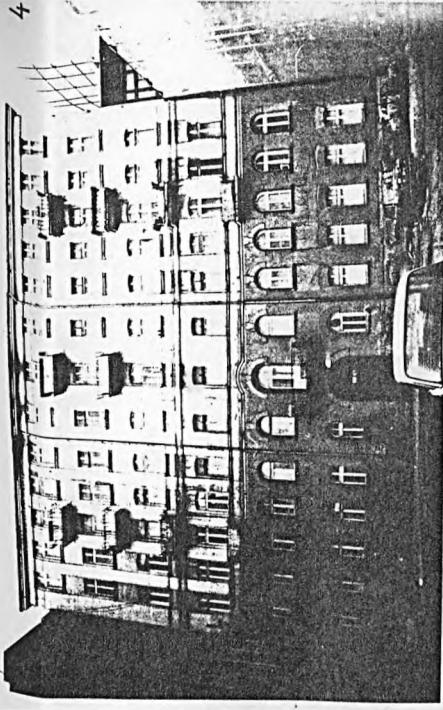
(Al. Jerolimskie 93) 2.

5. no. 1544

(Chmiełna 68)

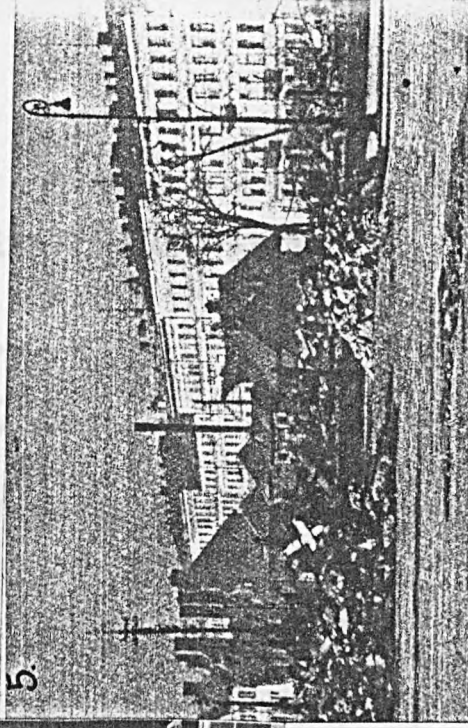
6. no. 770 (Chrośna 20)

1c

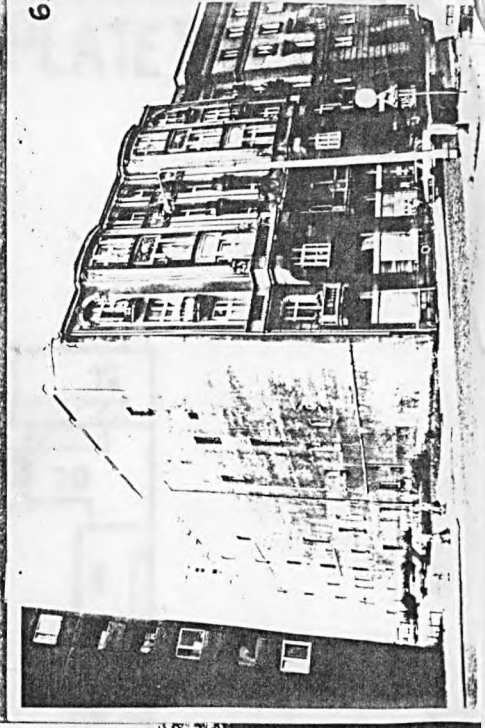


4

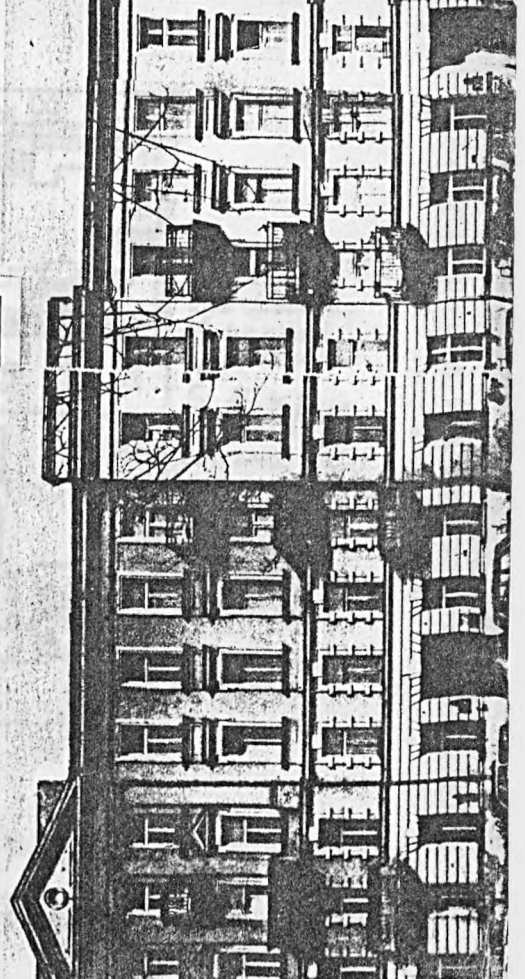
5



6



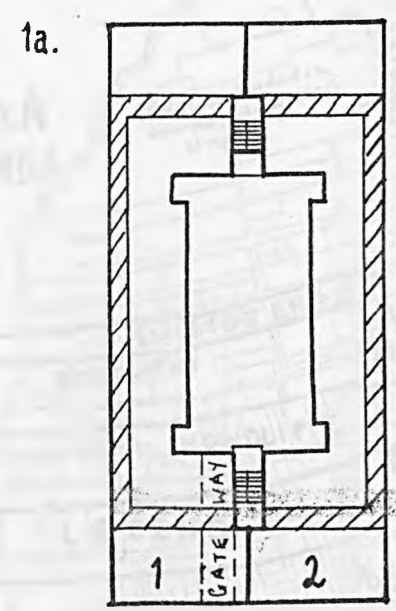
NG



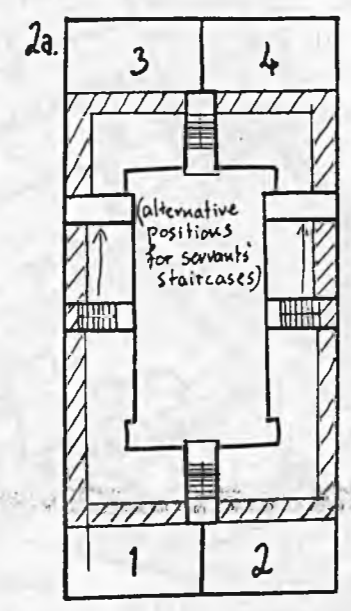


HYPOTHETICAL APARTMENT DIVISIONS IN TENEMENT HOUSES

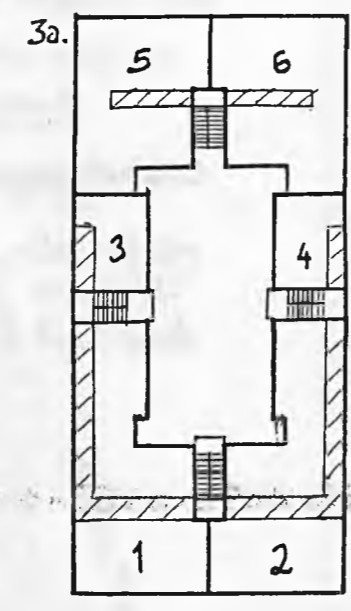
(ACCORDING TO J.F. GEIST & K. KÜRVERS, BERLIN 1984).



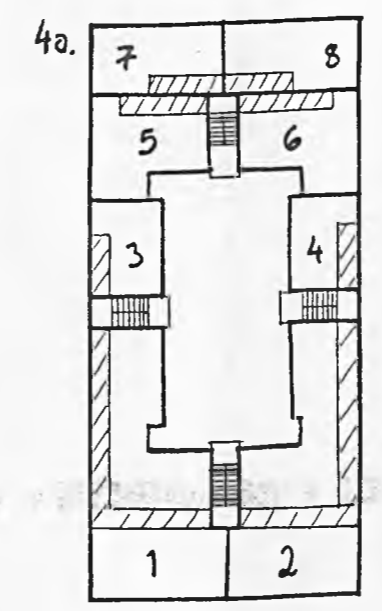
2 apartments



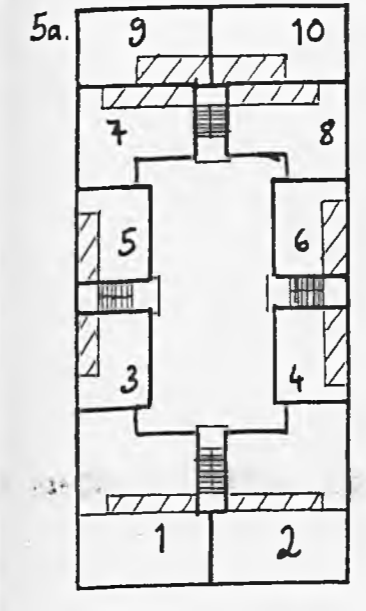
4 apartments



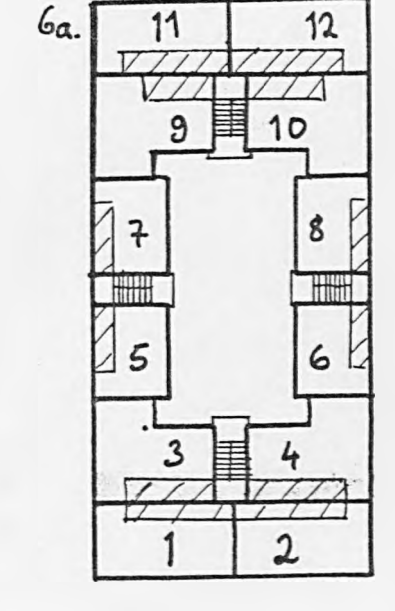
6 apartments



8 apartments

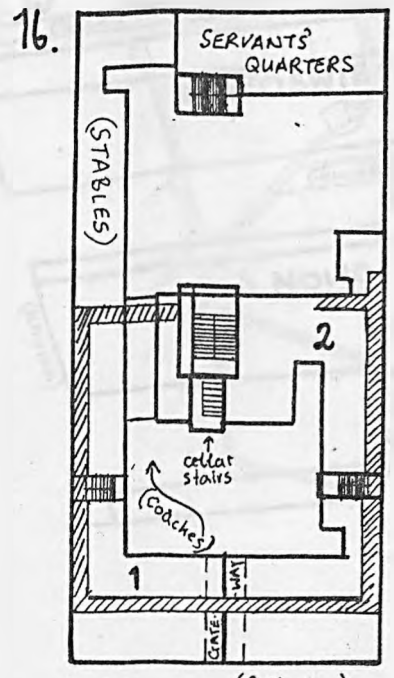


10 apartments

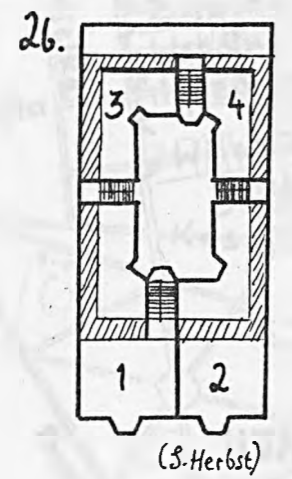


12 or more apartments

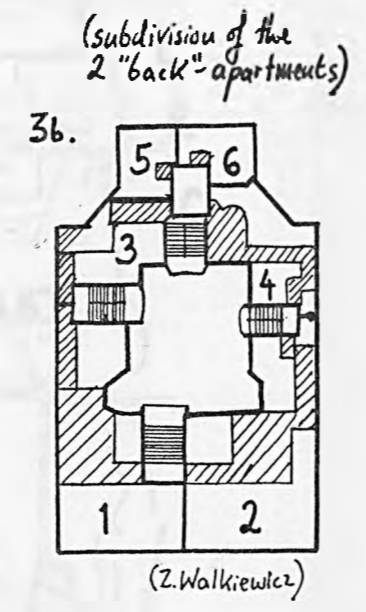
8: APARTMENT DIVISIONS AND SUBDIVISIONS IN WARSAW TENEMENTS (1990-'91)



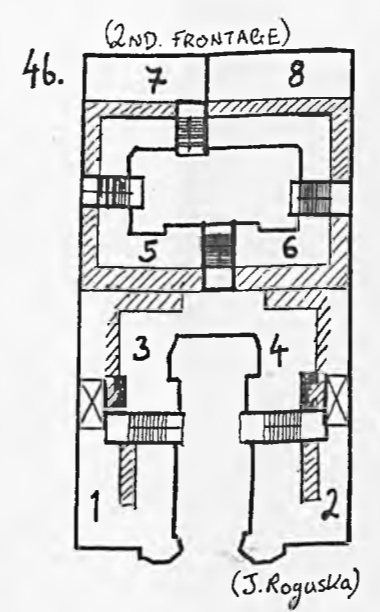
Al. Ujazdowskie 37 (1669)



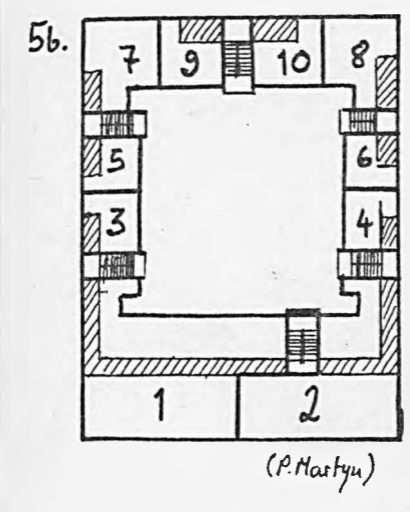
Zurawia 26 (1618E)



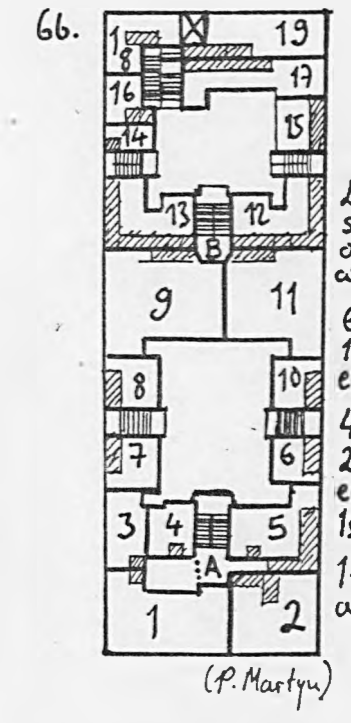
Smolna 34 (6418)



Al. Jerozolimskie 93 (1582<sup>E19</sup>)

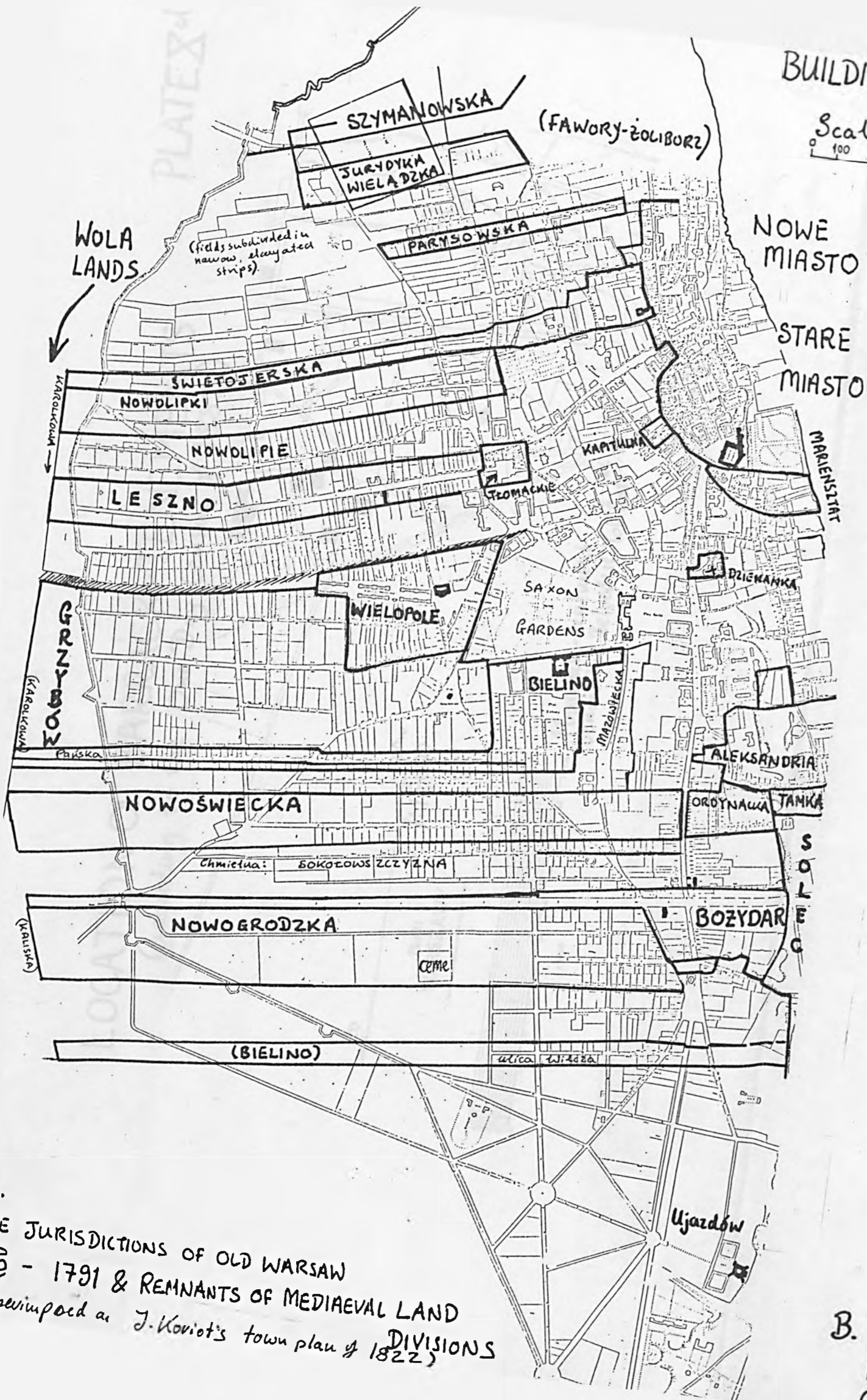


Chmielna 68 (1544) (non-existent)



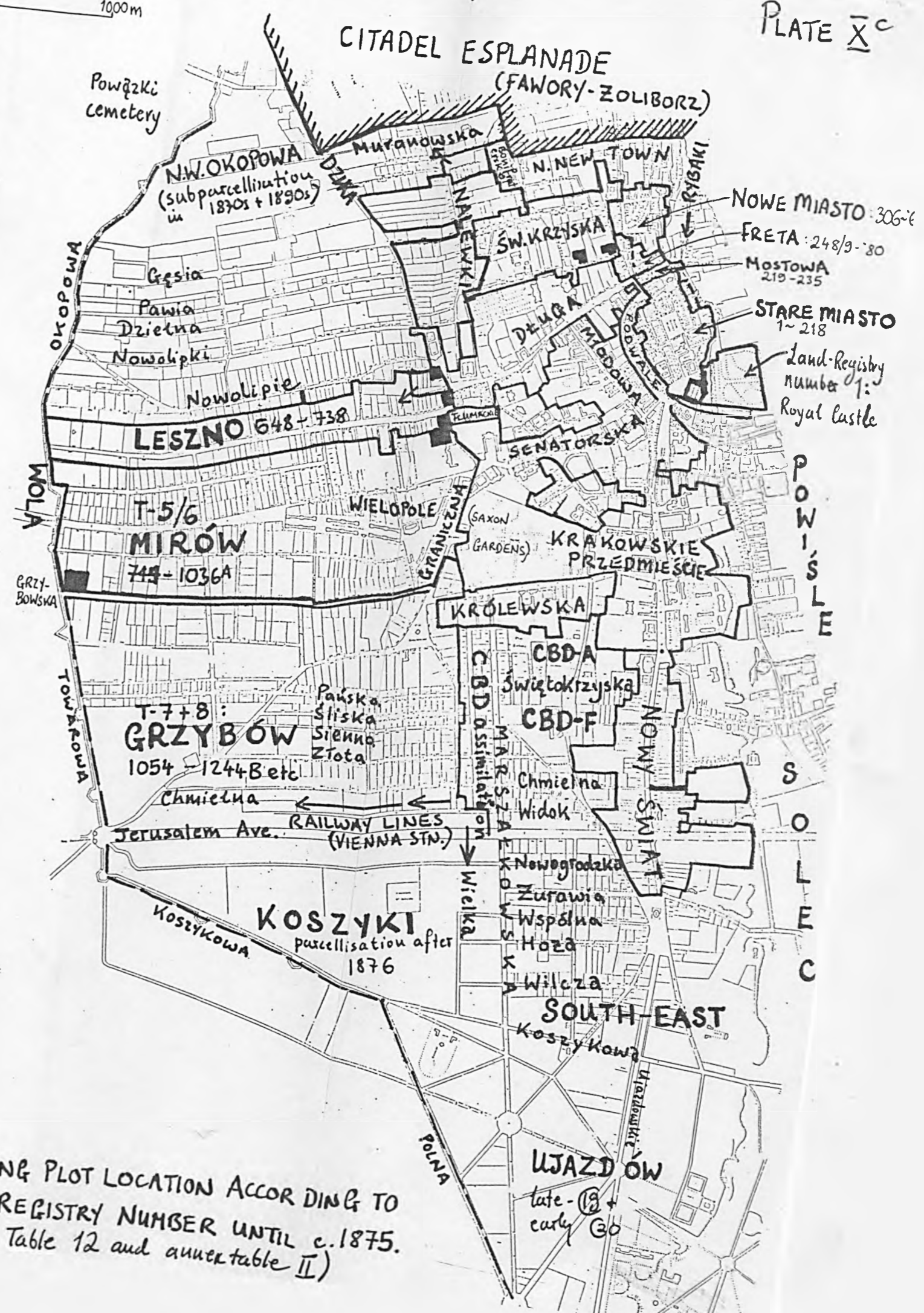
Chłodna 20 (770)





A. THE JURISDICTIONS OF OLD WARSAW  
 (15 - 1791 & REMNANTS OF MEDIAEVAL LAND DIVISIONS  
 (superimposed on J. Kowiat's town plan of 1822))

BUILDING PLOT PARCELLISATION UPTO 1819/75  
 Scale c. 1:18,000

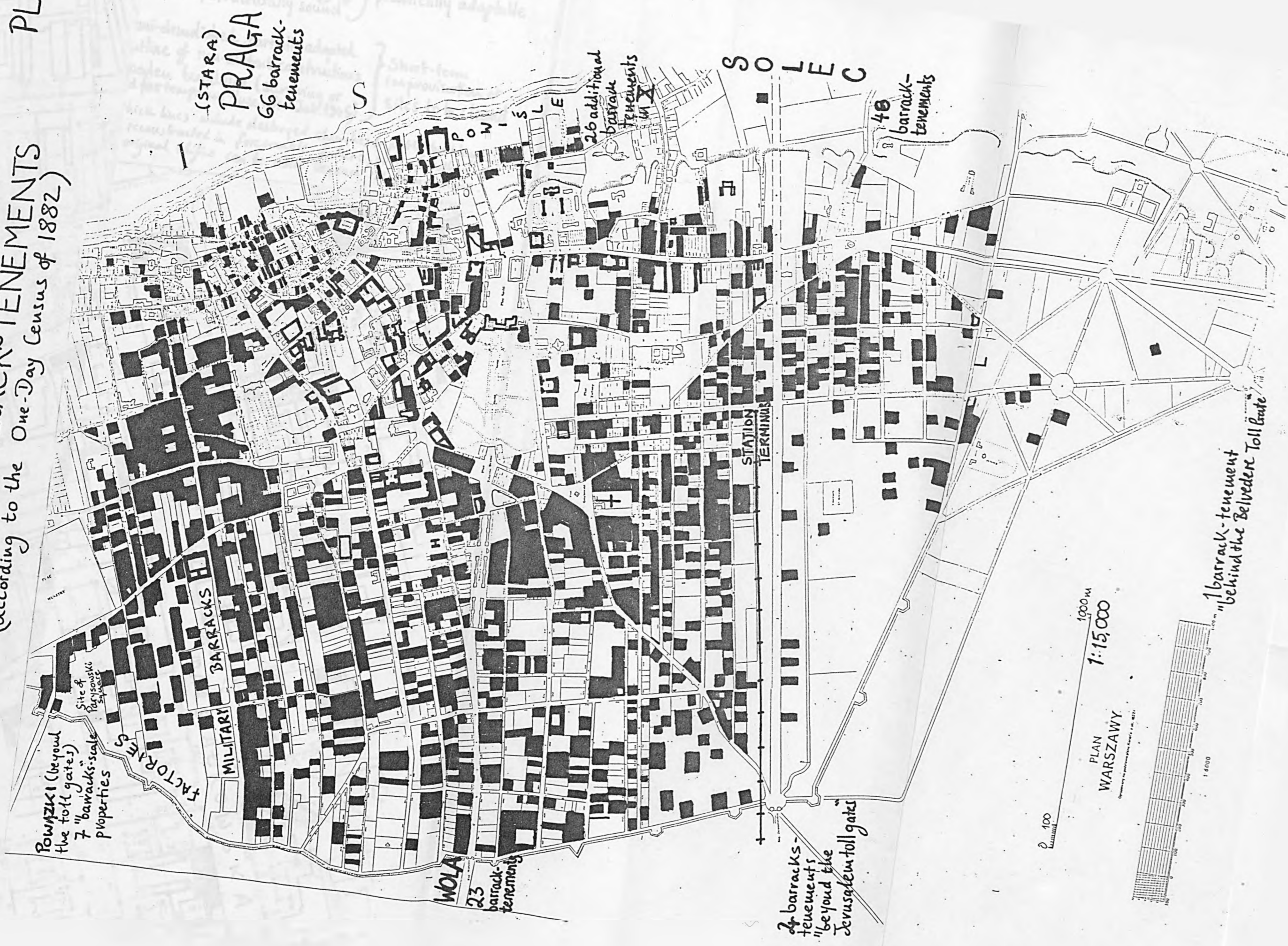


B. BUILDING PLOT LOCATION ACCORDING TO  
 LAND REGISTRY NUMBER UNTIL c. 1875.  
 (refer to Table 12 and annex table II)



# LOCATION OF BARRACK-TENEMENTS (according to the One-Day Census of 1882)

PLATE X



Powizki (beyond the toll gates)  
7 "barracks-scale" properties

Site of Powizki square

MILITARY BARRACKS

(STARA) PRAGA  
66 barracks-tenements

WOLA  
23 barracks-tenements

26 additional barracks-tenements

2 barracks-tenements beyond the Jerusalem toll gates

SOLEC  
40 barracks-tenements

1 barracks-tenement behind the Belvedere Toll Gate

1000m  
1:15,000

PLAN WARSZAWY

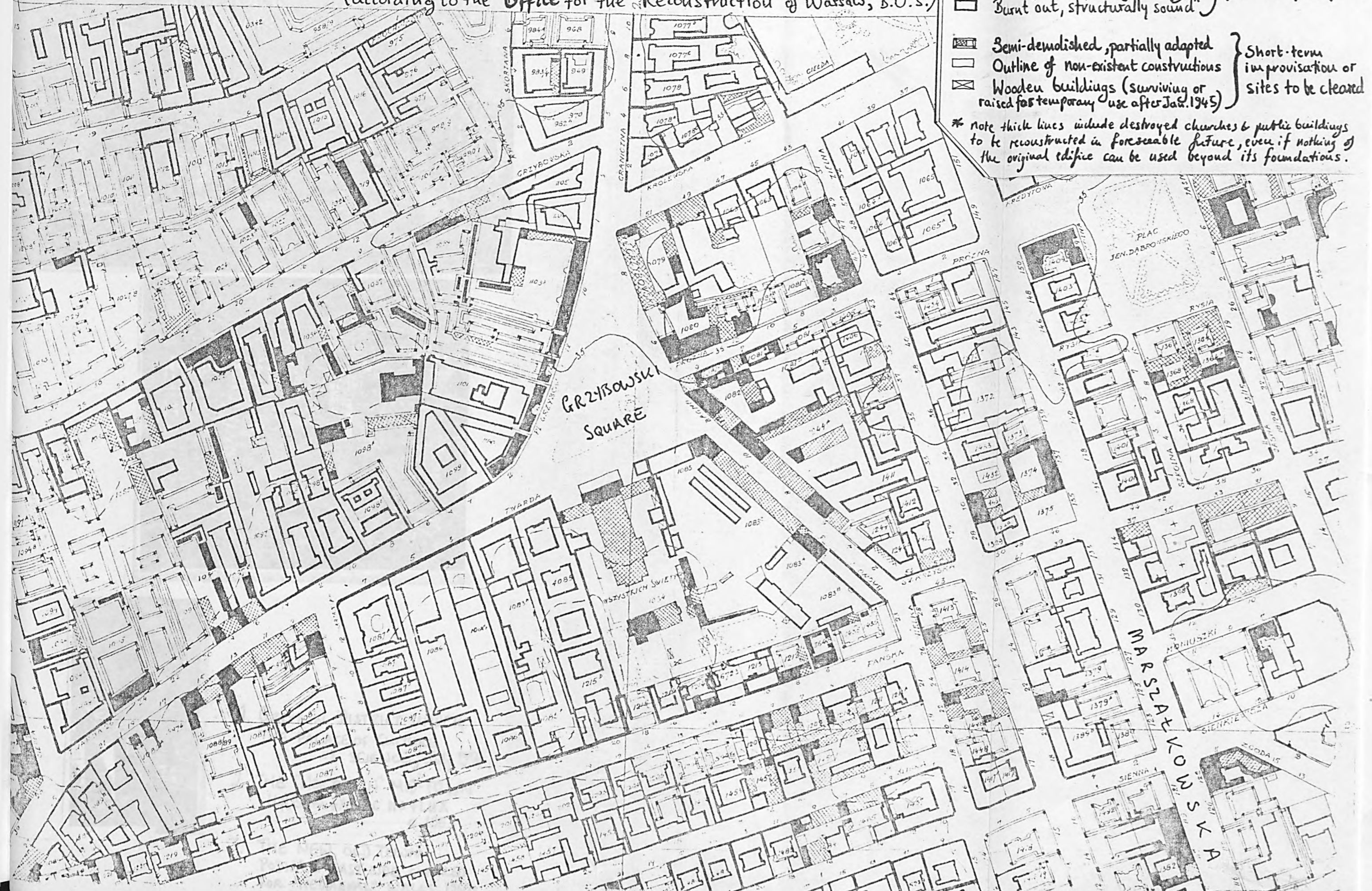




RECORD OF POST-WAR REHABILITATION OF THE URBAN FABRIC  
(according to the Office for the Reconstruction of Warsaw, B.O.S.)

- Structurally undamaged
  - Improved roofing
  - Lower floors undamaged
  - Lower floors requiring roofing\*
  - Burnt out, structurally sound
- } Buildings adapted or practically adaptable
- Semi-demolished, partially adapted
  - Outline of non-existent constructions
  - Wooden buildings (surviving or raised for temporary use after Jan. 1945)
- } Short-term improvisation or sites to be cleared

\* Note thick lines include destroyed churches & public buildings to be reconstructed in foreseeable future, even if nothing of the original edifice can be used beyond its foundations.



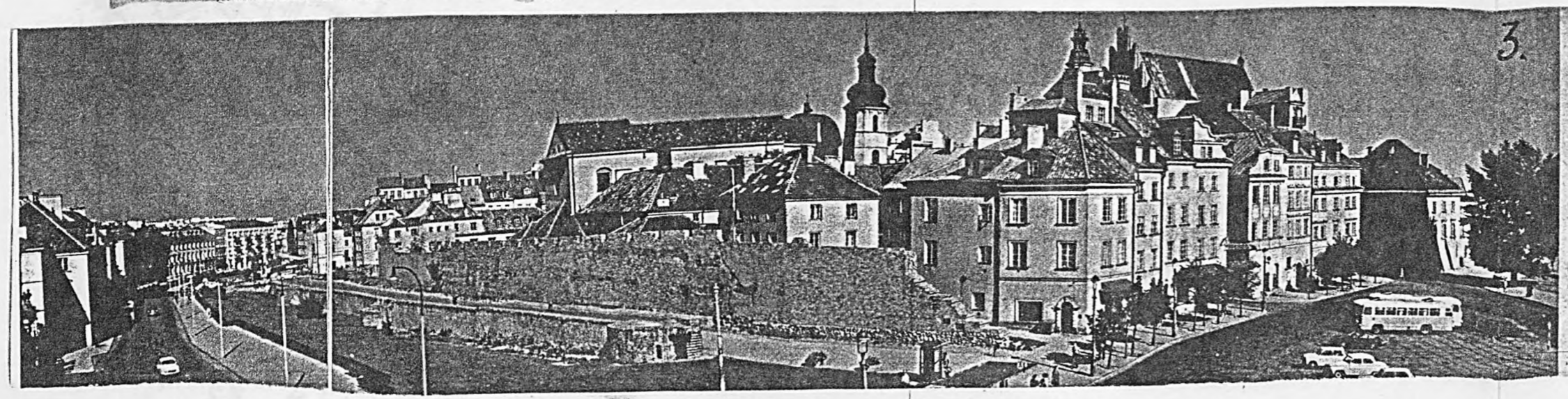




1.



2.



3.

1. GRZYBÓW DISTRICT UNDER THE PALACE OF CULTURE & SCIENCE, July 1954
2. THE "NORTHERN" MID-TOWN URBAN FABRIC IN FLUX c. 1953
3. THE NEW OLD TOWN : PODWALE EAST SIDE CLEARED FOR "MEDIAEVAL" WALLS, 1960s.





MARSZAŁKOWSKA  
STREET PROFILE  
(1903/1914)

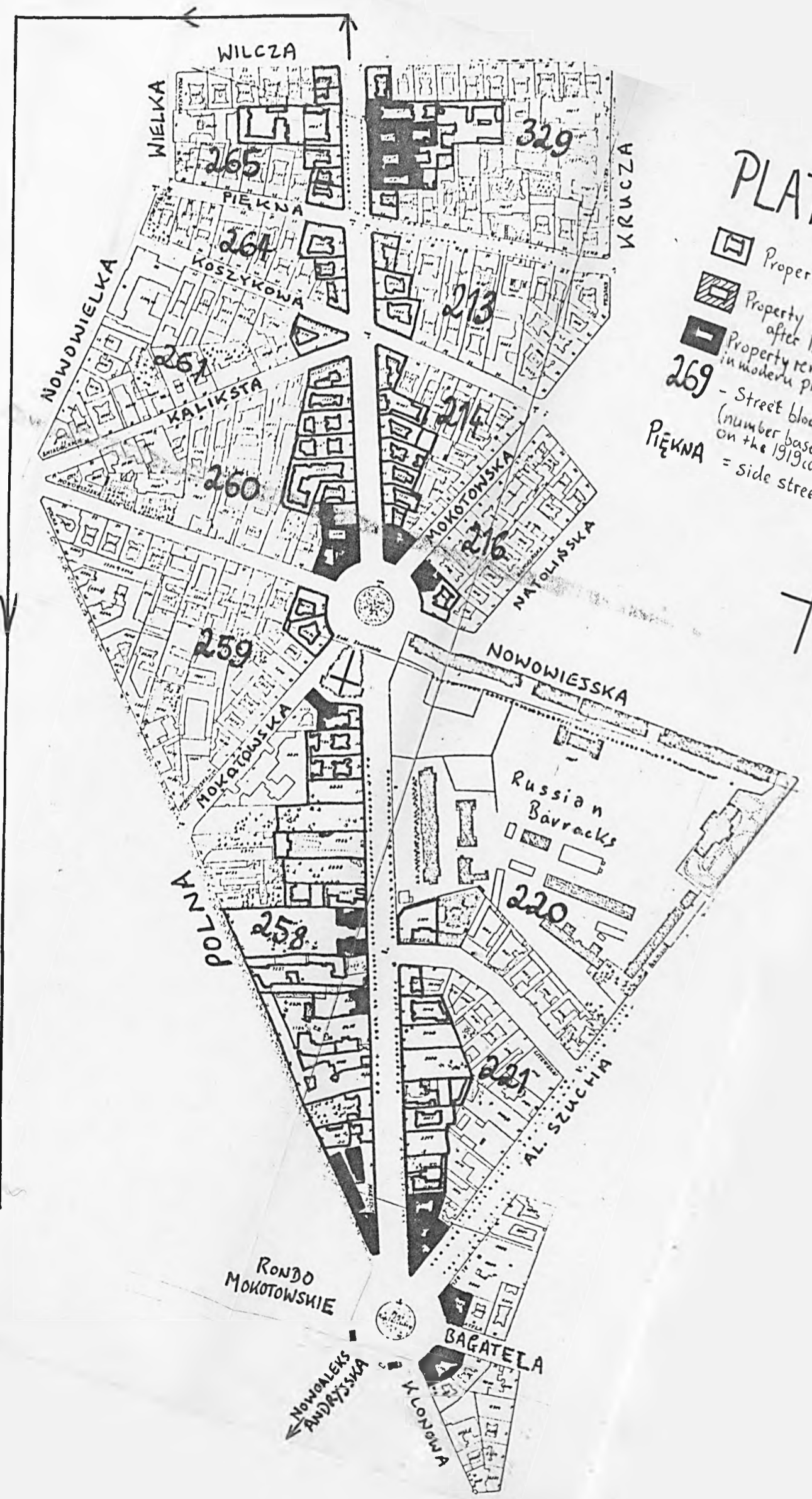


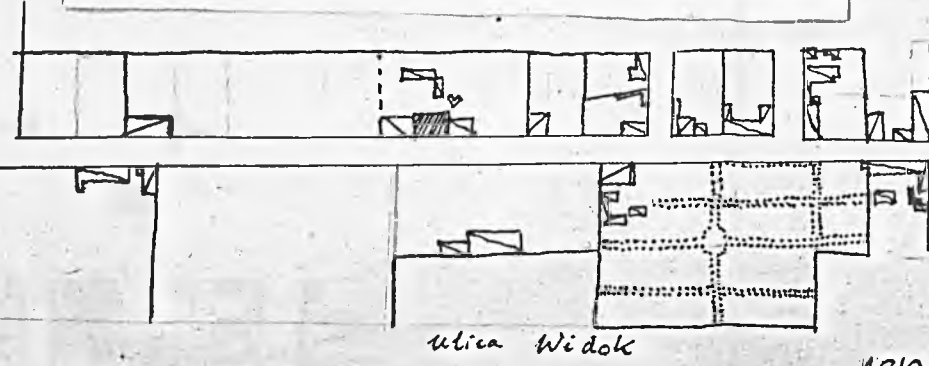
PLATE XIc

- Property non-extant
- Property adapted after 1945
- Property remaining in modern profile
- 269** - Street block (number based on the 1919 census)
- PIĘKNA** - side street

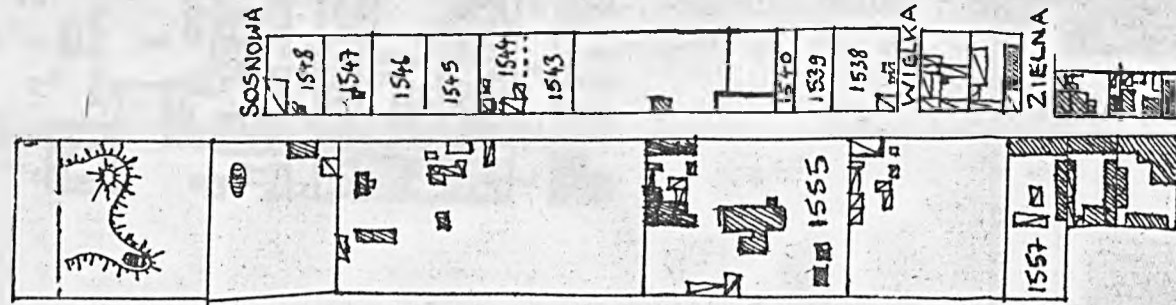
N



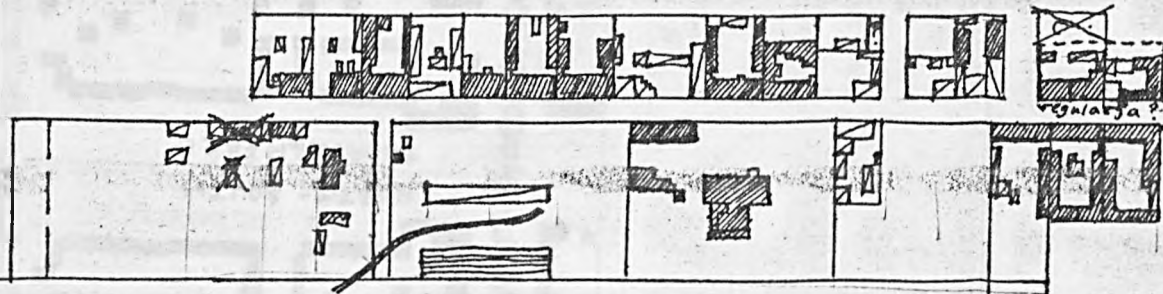
2. MARSZAŁKOWSKA-SOSNOWA SECTION



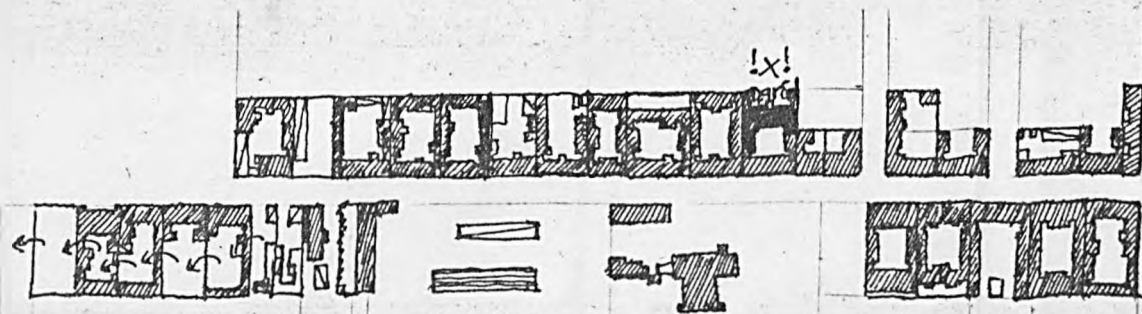
1819



1851r.

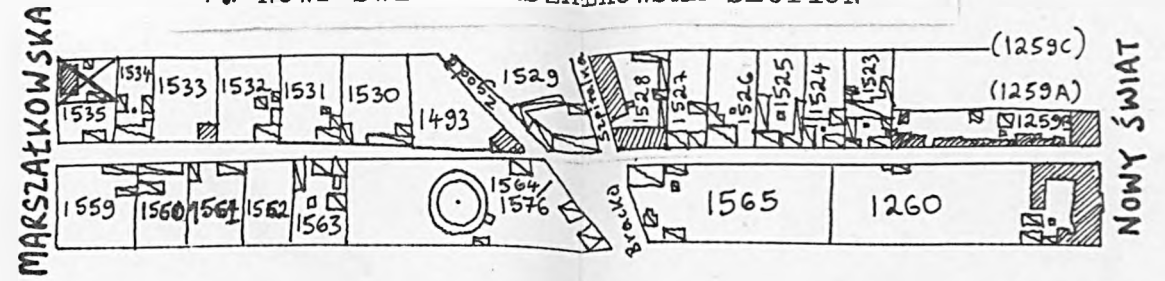


1867



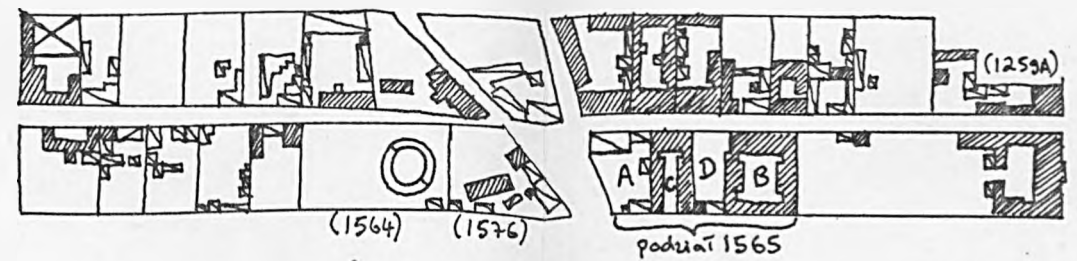
1897

1. NOWY ŚWIAT-MARSZAŁKOWSKA SECTION

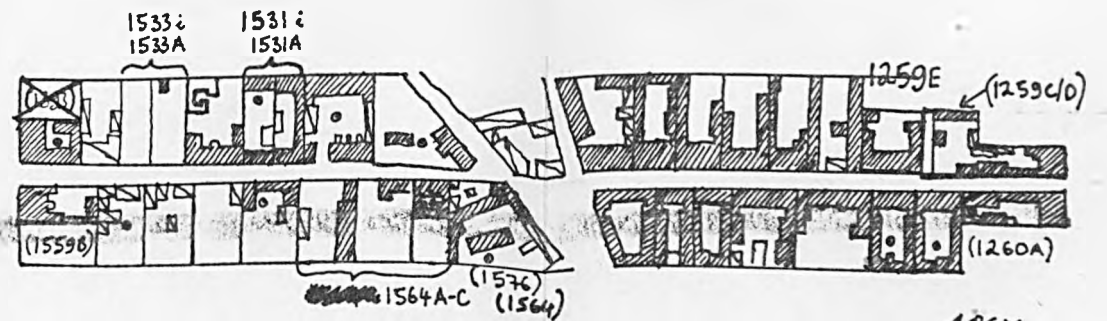


1829 (KORIOT)

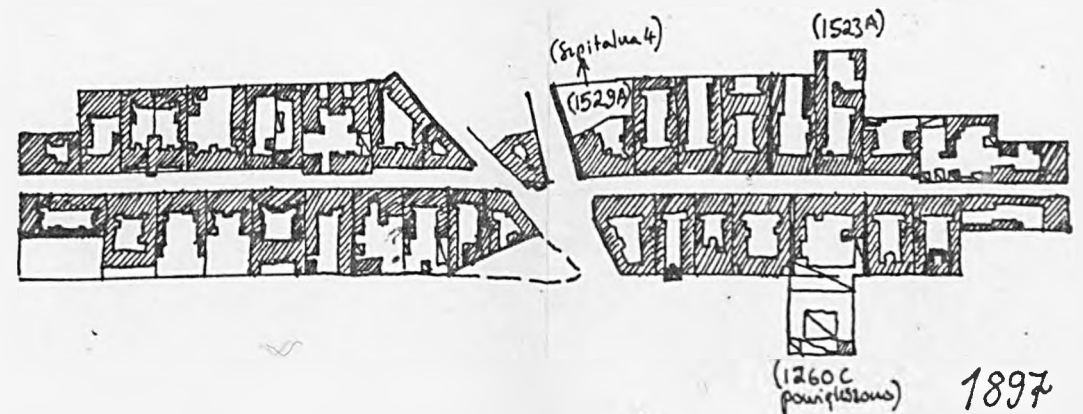
Scale 1:6,800



1852 (ŚWIĄTHOWSKI)



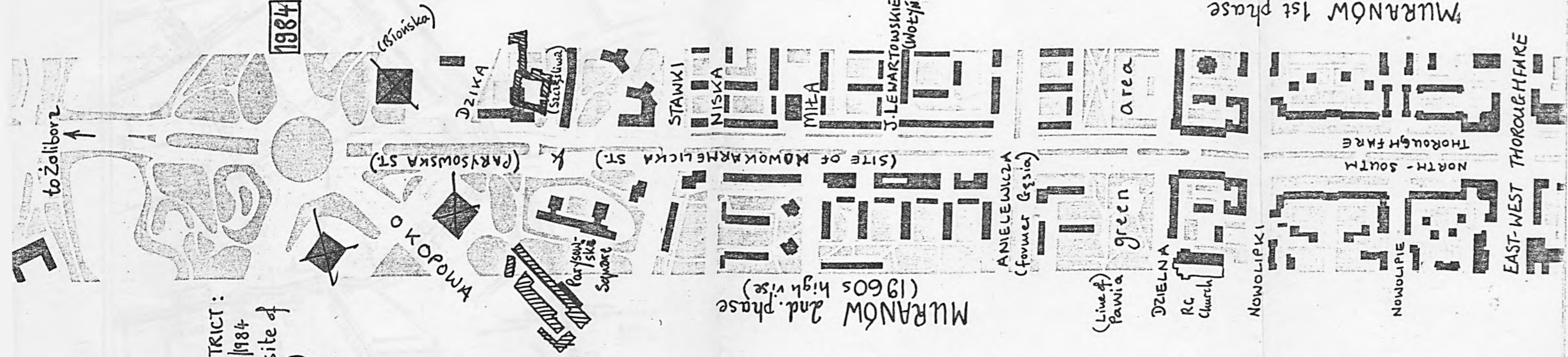
1867  
(PRZESBKA PLANU KORIOTA)



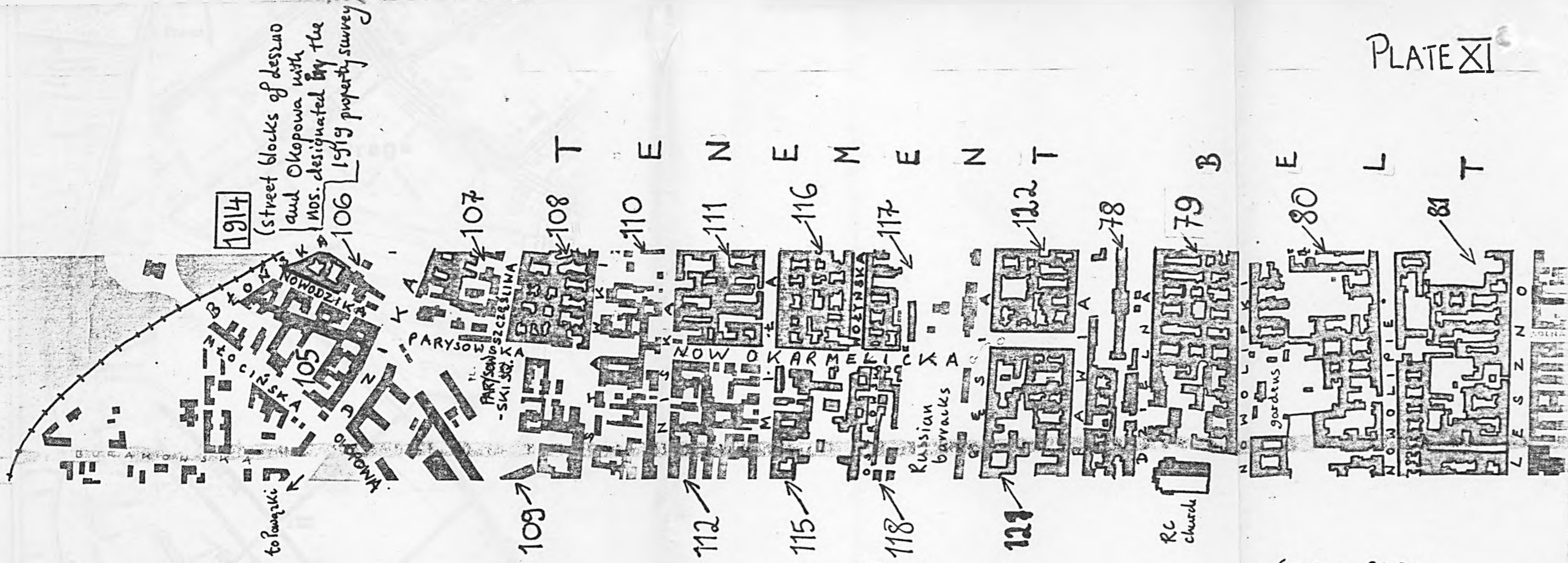
1897  
(PLAN WYKONANY PO WPROWADZENIU KANAŁÓW wg SYSTEMA LINDLEYA)



THE NORTH-WESTERN DISTRICT:  
 CROSS-SECTION 1914 (1984)  
 (Leszno-Dzika streets; site of  
 the N-S Thoroughfare)



MURANÓW 1st phase  
 (1949 ~ 56)





A-5: Tenement case studies

CENTRUM

Nowe Miasto

Praga

Muranów

Maiensztat

Mirów

Powisłe

Wola

Ochota

PLATE XII



Skala 1:12 500

ESPERANTO 111.180.370

GRZYBOWSKA 106.155.353

MARCINA 105.109.159.163.305.309

AL. JERUZOLIMSKIE 130.154.354

State Miasto

Ogród Saski

Ogród Saski

GRZYBÓW

SOULHÉ

TRASA W.Z. AL. GEN. K. SWIERCZEWSKIEGO

AL. GEN. K. SWIERCZEWSKIEGO

AL. JERUZOLIMSKIE

AL. JERUZOLIMSKIE

AL. JERUZOLIMSKIE

TRASA W.Z. AL. GEN. K. SWIERCZEWSKIEGO

AL. GEN. K. SWIERCZEWSKIEGO

AL. JERUZOLIMSKIE

AL. JERUZOLIMSKIE

AL. JERUZOLIMSKIE

170 157 148.170.170

111.180.370 148.170.370

113.20.24.26.27.34 166.366

106.155.353 105.109.159.163.305.309

105.109.159.163.305.309 159.163

130.154.354 110.154.354

180 188 215.183.369

111.180 111.180.370

112.17.19.22.29 166.170.366.370.376

105.109.159.163.305.309 102.143.50.155.174.350.355

105.109.159.163.305.309 164.436

101.107.108.111.117.118.119.120.121.122.123.124.125.126.127.128.129.130.131.132.133.134.135.136.137.138.139.140.141.142.143.144.145.146.147.148.149.150.151.152.153.154.155.156.157.158.159.160.161.162.163.164.165.166.167.168.169.170.171.172.173.174.175.176.177.178.179.180.181.182.183.184.185.186.187.188.189.190.191.192.193.194.195.196.197.198.199.200

462 462 462

462 462 462

460.506 460.506

460.506 460.506

460.506 460.506

460.506 460.506

401.H.T. 401.H.T.

401.H.T. 401.H.T.

401.H.T. 401.H.T.

401.H.T. 401.H.T.

401.H.T. 401.H.T.

401.H.T. 401.H.T.

138.170.370 101.103.119.120.135.168

101.103.119.120.135.168 101.103.119.120.135.168

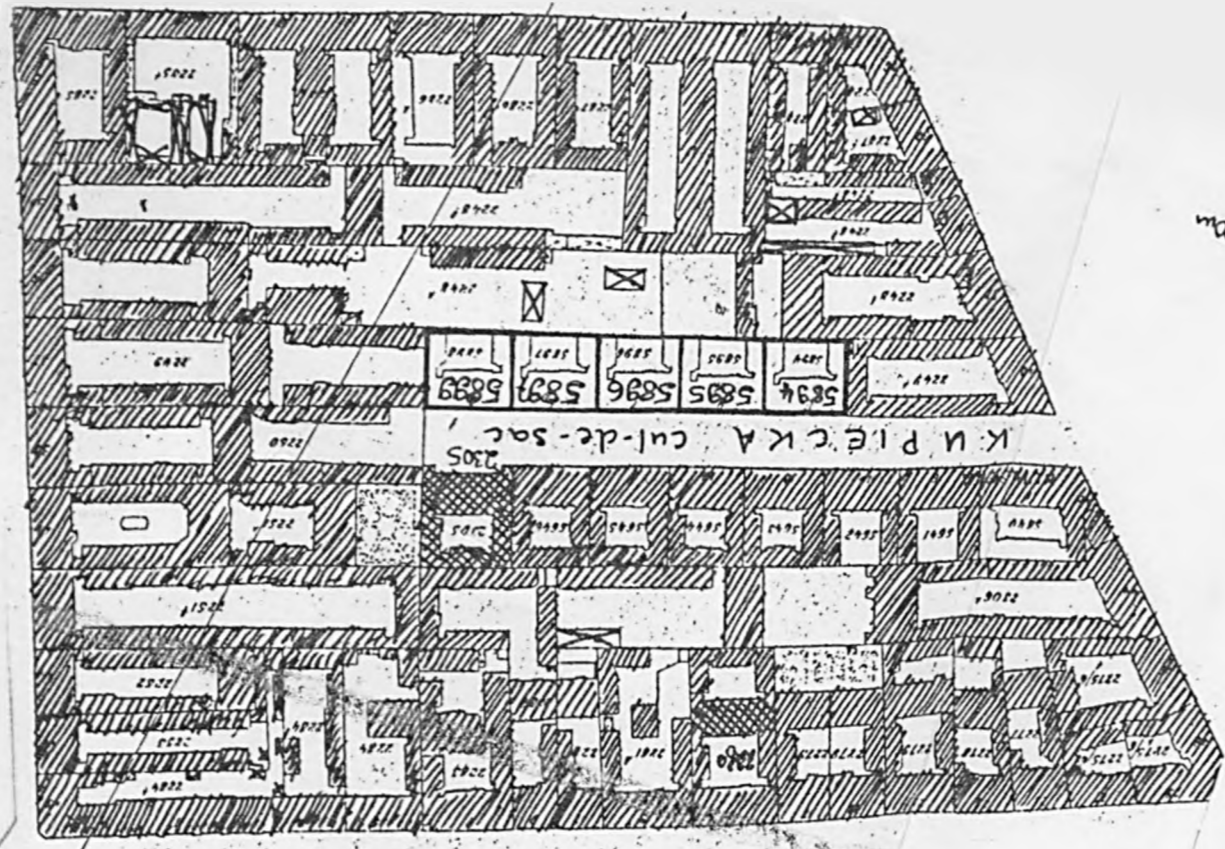
101.103.119.120.135.168 101.103.119.120.135.168

101.103.119.120.135.168 101.103.119.120.135.168

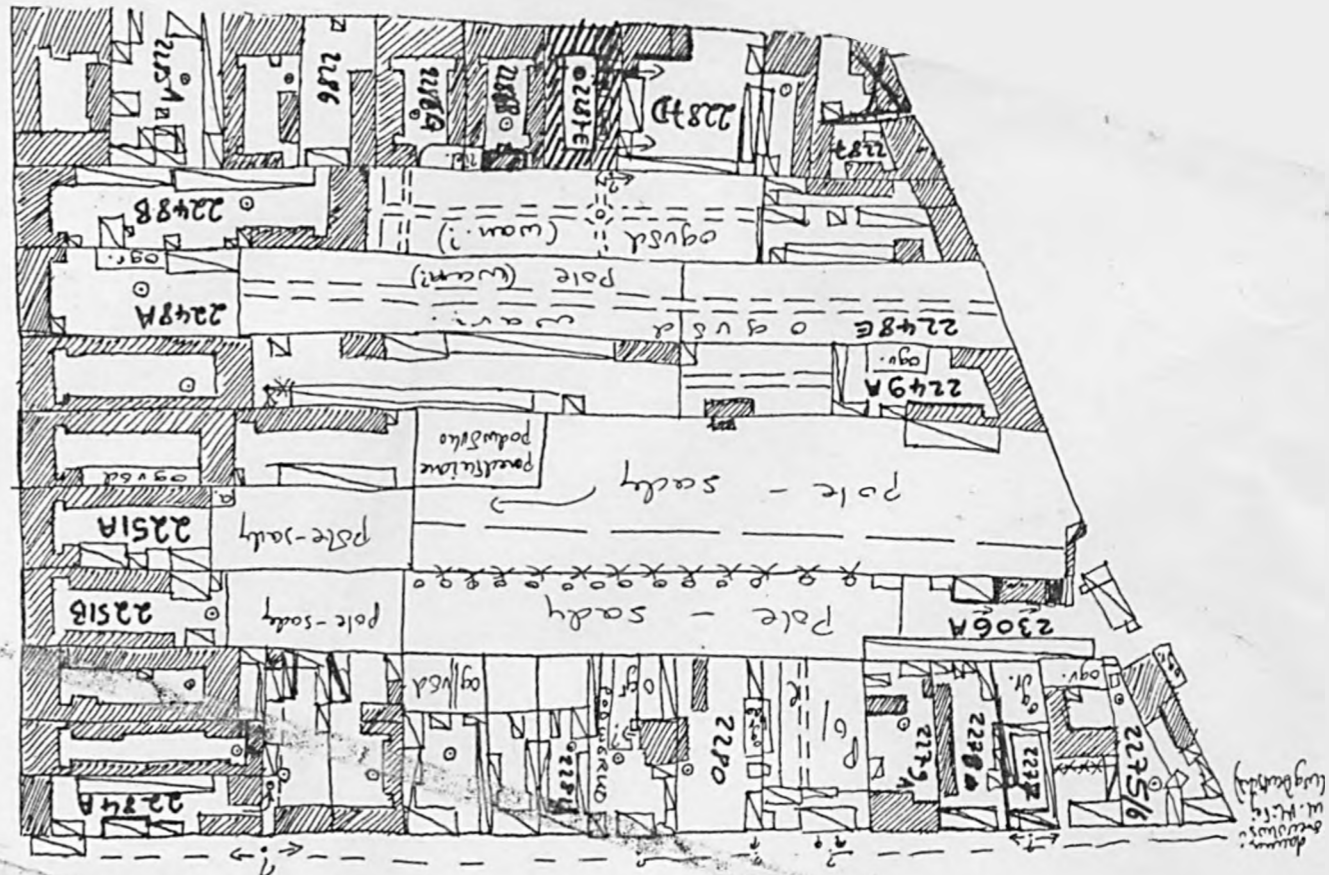
101.103.119.120.135.168 101.103.119.120.135.168

101.103.119.120.135.168 101.103.119.120.135.168

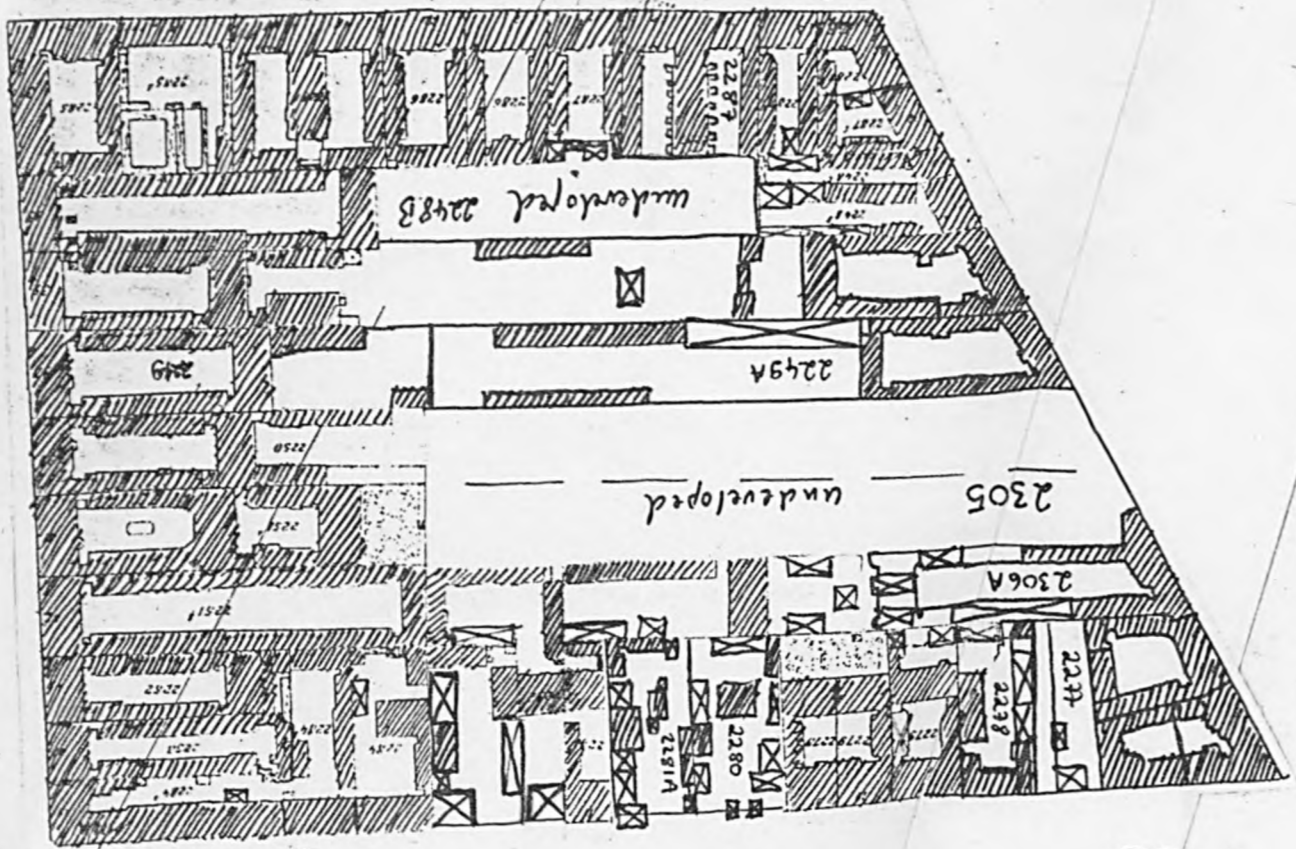




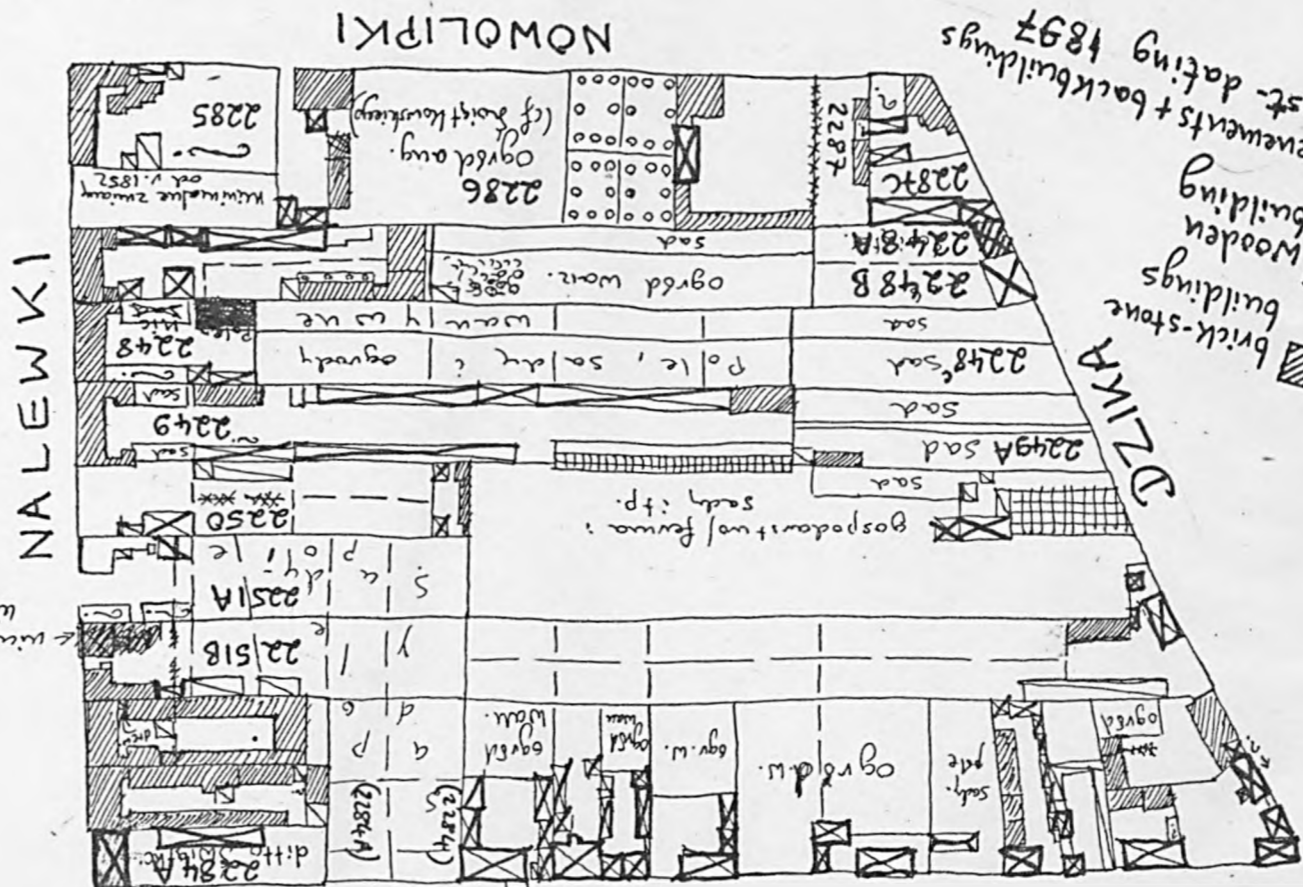
1:2500  
0 25 50 100m



1897



1890



N A L E W K I

D Z I M A

M I F A

1867  
post-dating 1897  
tenements + backbuildings

brick-stone buildings  
wooden building

Development of street block no. 91  
in Nalewki "cyrkut" 1859-1897

1859