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## **FORMATION OF A NEW STRUCTURE OF SOCIO-SPATIAL DIFFERENTIATION IN THE TOWNS OF POMERANIA: THE CASE OF THREE MEDIUM-SIZED TOWNS**

**Wioletta Szymańska**

Pomeranian University in Słupsk  
Institute of Geography and Regional Studies  
Partyzantów 27, 76-200 Słupsk: Poland  
e-mail address: [szymanskaw@apsl.edu.pl](mailto:szymanskaw@apsl.edu.pl)

### **Abstract**

This paper is the result of research on the contemporary diversity of socio-spatial structures in medium-sized cities in the coastal zone of Poland (Pomerania), using the cities of Lębork, Szczecinek and Wałcz as case studies. The main focus of the research is on demographic changes and population movement and on an increase in the spatial segregation of certain social groups which seems to result from the latter changes, particularly of the unemployed and the impoverished. The research also discusses social problems and changes in the quality of life which may be connected with the preceding changes. An attempt is made to encapsulate some of the main features of the new socio-spatial patterns which have emerged over the last two decades in a model of medium sized towns in this region.

### **Key words**

socio-spatial structures • intra-urban space • medium-sized cities • Pomerania • Lębork • Szczecinek • Wałcz

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### **Introduction**

The study of social patterns in urban areas has its own rich traditions. Such studies have been carried out not only taking account of the geography of cities but also the sociology of the city and have led to the development of many models of the spatial structure of cities (detailed descriptions are found, among other places, in the works of Maik 1992; Węćławowicz 2003). Descriptions and interpretations of socio-spatial differentiation in urban areas tend to draw on general social theories such as the theory of social change of Marx and Engels (1955, 1967, 1971), the rationalist social theory of Weber (1968) or Durkheim's (1984) functionalist theory (Goodman 1997; Jato-

wiecki & Szczepański 2002; Sztompka 2005). These basic theories of society have been used for the further development of ecological theories of urban growth and diversification and of the concept of the city as a system of resource allocation and political economy (Węćławowicz 2000). In view of the fact that many of the pioneering works in urban studies and the associated concepts and models were concerned with American cities, which may have been shaped by the particular characteristics of the social and economic development of the USA, criticisms have been put forward concerned with the applicability of these models to urban areas in other parts of the world. As a result, comparative studies have been conducted, first for West European cities,

then for other cities, including the cities of Central and Eastern Europe. In addition, awareness of social theory, as noted by Musil (2003), helped to promote different research approaches for the cities of Central and Eastern Europe as opposed to Western Europe due to the different types of societies associated with different forms of economic and political control. In fact, researchers from the former state socialist countries of Central and Eastern Europe often pursued the study of cities with an implicit or covert neo-Weberian approach which, in fact, was often better suited to the social processes taking place in the cities of the latter countries. On the other hand, the strength of neo-Marxian approaches in western sociological studies of cities generally seems to reflect the dominant influence of the market and its social effects in the latter cities.

Most of the studies just mentioned dealt with big cities and these certainly constitute a potential area of comparative research. Small towns have also attracted attention, but they were examined mostly in the context of their place in the settlement network or their impact on surrounding areas. Little space and attention was given to medium-sized cities, which on one hand were no longer small-towns, yet on the other hand did not necessarily show the intrinsic features of big cities.

The present paper focuses on social patterns in medium-sized cities on the Polish coast, where some historical-political and socio-economic factors differ from their equivalent in the rest of Poland. The first part of the study outlines the basic pattern of regional differentiation in the development of Polish cities and the importance of their place in the settlement network. The second part discusses the methodological basis of the empirical studies conducted, which determines the scope, subject matter and purpose of the work. The third section discusses the results of research conducted in three medium-sized cities in Pomerania (Lębork, Szczecinek and Wałcz), which are summarized in the final part.

### **Medium-sized cities of Pomerania and their diversity**

The modern structure of Polish cities, according to Węclawowicz (2003), results firstly from historical conditions, which give them strong regional differences and, secondly, from their position in the hier-

archy of the settlement network, often identified with the size of the city.

The first of these aspects causes Polish cities to be different from those of Western Europe through their specific origins and the way they have evolved over time. Most of the present towns were founded in the Middle Ages (Janiszewski 1991) and the distinctiveness of the Polish culture of the population in the areas around them gave them a somewhat rural character and a significant influence from the Polish rural landowning classes (MRD 2010). Their development and spatial structure was also affected by the years when Poland was progressively partitioned between the three surrounding empires (i.e. from 1772 to 1918). Depending on which of the three powers (the Austrian, Prussian and Russian empires) controlled the particular region concerned, various transformations took place in this period which have had an impact on the present form of these cities.

On the western side of Poland, occupied by Prussia, were the highly industrialized and urbanized areas of Silesia and Wielkopolska with a dense network of cities and over 30% of the population urbanized. In contrast, the eastern parts of Poland, mainly occupied by Russia, tended to be more agricultural in character with levels of urbanization generally below 15% (MRD 2010). In northern Poland the proportion of population urbanized was more variable. The majority of cities in Pomerania were established in the Middle Ages on the basis of old Slavic settlements, but the inhabitants of these medieval cities were generally mostly German, due to the settlement of immigrants from Germany who tended to hold a dominant position in the urban economy (Trzebiatowski 1965). With the progressive fragmentation of Pomerania as a political and administrative entity over a long period from the Middle Ages onwards, with Polish and German influence varying over this period and with the Polish-Lithuanian Commonwealth being eventually completely dismembered through the three partitions (1772, 1793 and 1795), the cities of Pomerania were shaped mainly by their German citizens, who were more powerful economically, especially after Prussia had acquired nearly all of Pomerania in the 1772 partition. This happened in spite of the strong historical affinities these cities had with Poland. As a result, their economies were mainly based on craft and trade. This helps

to explain the typical social character of cities in Pomerania i.e. based on strong urban development and expansion. In other regions of Poland, cities grew somewhat differently, with the cities of eastern Poland affected by their peripherality and the cities of Upper Silesia experiencing strong industrial growth (Dziewoński 1967; Dobrowolska 1975).

The post-war period was the next stage in shaping the socio-spatial structure of Polish cities during which the main processes were those of implementing real state socialism. As emphasized by Węclawowicz (2003), these processes had a different character than in many countries of Central and Eastern Europe. He considers this process had 5 most important features: (1) the ideological principles of promoting urbanization; (2) industrialization of the cities which fostered the dominance of the working class; (3) concentration of places of residence around the work area, which hampered the formation of local communities; (4) the central system of administration, which neglected the needs of residents, especially in the field of service facilities; (5) ignoring the importance of land rent, which often resulted in uneven and wasteful use of space in the city. All these features of the formation of the state socialist city were reflected in the towns in Pomerania. However, the regaining of Pomerania by Poland after World War II also resulted in an almost complete replacement of its urban inhabitants. Research conducted by Zdrojewski (1998) confirms that in Pomerania, over 60% were Polish in-migrants from various other regions of Poland, about 20% were repatriated from the Soviet Union, while the returning migrants and indigenous population did not exceed 10% of the overall total population. The almost total replacement of the population and the introduction of the policies and practices of the socialist state resulted in significant industrialization of many cities of Pomerania, in the construction of very characteristic residential blocks for workers in the newly created industrial plants, in a lack of proper care for the reconstruction of old urban neighborhoods which had been destroyed and in an influx of rural population with no experience of urban life.

Towards the end of the 20th century as a result of the introduction of market forces and change in the social, economic and political system in the country, Polish cities entered into a new stage of spatial development. According to Węclawowicz (2000), the process of releasing Polish cities from

the constraints and attendant characteristics of the state socialist city involved several key elements: the re-introduction of rent on land; the creation of real autonomy for local government; liberalization of economic activity; changes in the criteria for the spatial allocation of population from political to economic (i.e. as regards housing); radical changes in the structure of employment particularly growth in the service sector; and an increase in the social and spatial mobility of the urban population, which caused an increase in spatial segregation. To some extent, these processes exhibit numerous similarities to those in other cities in Poland and in Central and Eastern Europe, but were applied to the historically shaped and somewhat distinctive social structures of the cities of Pomerania.

The second broad factor shaping the modern structure of Polish cities, as indicated earlier, refers to the place of the city in the hierarchy of the settlement network. Numerous studies of Polish cities show differences among them both in the rate and extent of many processes shaping their spatial structures which are related mainly to their size. According to Frykowski (2004), capital and metropolitan cities prominently involved in the global economy undergo the fastest changes, whereas cities left on the sidelines of global transformation experience slower change. These transformations often combine with functional differentiation of the city and the location of the major economic control functions, depending on the position of the city in the administration and settlement hierarchy (Śleszyński 2007). Therefore, the most pronounced effects on spatial and social structures in post-socialist cities are often observed in capital cities and cities in metropolitan regions. However, it should be noted that there has been little research on cities placed lower in the hierarchy. In the period of the state socialist system, studies of the internal structure of Polish cities were carried out by, among others: Jałowiecki (1967), Werwicki (1973), Jagielski (1978), Węclawowicz (1982), and Kaltenberg-Kwiatkowska (1989). In more recent years studies were made by Jaroszewska-Brudnicka (2004), Zborowski (2005), Szmytkowska (2008) and Marcińczak (2009), although not all were concerned with medium-sized cities. Therefore, medium-sized cities, identified in Poland simply by the criterion of population size, were chosen as the object of the present study. Thus the Polish

Central Statistical Office considers as medium-sized cities settlement units that have the official status of municipalities and include from 20 to 100 thousand people within their administrative boundaries. Such a definition makes it easier to compare statistical data which are available as aggregated within such administrative boundaries. Some researchers – functionalists – propose extending the area of analysis for urban entities to include their suburban zones, which although not recognized administratively as cities, are integrally linked to their roles, especially as regards economic relations (cf. eg. Maik 1992; Suliborski 2001; Śleszyński 2003, 2007). In this study, suburban zones were not taken into account because they have a very small role in shaping the internal structures of medium-sized cities.

In 2010, of 903 cities in Poland there were 180 (19.9%) medium-sized cities. Within the territory of Pomerania as a whole<sup>1</sup>, there are 22 urban settlements classified as cities (20.9% of all urban centres in the region), of which 9 are in the Voivodship (Province) of West Pomerania (14.3%) and 13 are in the Voivodship of Pomerania (30.9%). In medium sized cities in Poland, live some 7.364 million people who constitute 31.8% of the country's urban population) while such cities in the whole Pomeranian Region contain altogether 877.9 thousand residents (representing 33.4% of the urban population of this whole area. In the Voivodship of Pomerania itself medium-sized towns account for 556 thousand people (37.8% of that unit's urban population) while the West Pomeranian Voivodship's medium-sized cities number 322 thousand of inhabitants, which is 27.8% of the urban population of the latter province. Thus the number of urban settlements, as well as the level of urbanized population is generally higher in the former voivodship. The cities selected for the study (Lębork, Szczecinek and Wałcz) belong to the category of medium-sized cities, but do not exceed 50 thousand inhabitants.

## Methodological basis of the research

Social structures and their diversity in urban space is the subject of the present research. As regards diversity, the main concern was to determine the nature of these medium-sized cities and assess their similarity or difference from large cities or small ones. The selection of the objects to be researched was based on several relevant criteria. Currently, these cities are located in the Voivodships of Pomerania (Lębork) or West Pomerania (Szczecinek and Wałcz). They are characterized by:

- a similar size of population, with all three in the range of 20 to 50 thousand inhabitants. In the years 1950-1988 they showed a clear upward trend in population size, although within the hierarchy of settlements, their position in relation to other medium-sized cities declined. In the transition period, like most cities in Poland, they then began to exhibit negative demographic trends that caused the stagnation of population, and in recent years even population loss,
- location in a fairly homogenous area in terms of socio-economic development, i.e. Central Pomerania,
- receiving their formal charters as municipal entities in the same historical period (the 15th century),
- representing different genetic types of cities. According to the classification of Janiszewski (1991), Lębork represents type B (towns sited in a concave area of terrain), Szczecinek represents type D (riverside cities), whereas Wałcz is type A (towns at the junction of different physiographic areas),
- similar administrative roles – they are all the seats of a country district,
- similar, average levels of socio-economic development and similar experiences as regards structural transformation during the socio-economic transition. The latter was not a positive phenomenon, because the transformation process resulted in a number of difficulties and problems. In fact, these centres were associated in the past with industrial development, which was linked to a significant degree to their agricultural hinterlands, which were dominated by large-scale state farms. Now, in these cities there are new functions which have evolved

<sup>1</sup> Pomerania and coastal regions are treated as the area of the Pomeranian and West Pomeranian regions, which according to the European Nomenclature of Territorial Units for Statistics (NUTS) are regions of NUTS 2 level. This area is not commensurate with the historical borders of Pomerania, but rather refers to the broadly defined contemporary Polish coastal zone, identified as such by many geographers (Eberhardt 1998; Zdrojewski 1998; Rydz & Jażewicz 2002).

at different rates. Szczecinek represents the type of city where the role of its industrial sector has been regenerated. The most successful companies in the city, considered to be some of the best in the region, include Kronospan Holdings GK and Koszalin Wood Industry Company (*Koszalińskie Przedsiębiorstwo Przemysłu Drzewnego S.A.*) in Szczecinek. Wałcz, located in an area with a particularly attractive natural environment, was the site of the Olympic Training Center and focuses on the development of tourism. It should be stressed that, alongside its extensive sports infrastructure, just like Szczecinek, Wałcz, until recently, has played an important role as a garrison town and military training center for the Pomeranian Military District. In Lębork, however, the greatest emphasis is on the development of small and medium enterprises related to the development of tourism and as a commuter centre for the Tri-City (i.e. Gdańsk-Sopot-Gdynia).

More specifically, the research was concerned with examining the following topics:

- the diversity in demographic structure of the urban areas involved,
- the demographic aging processes of the population and the resulting social consequences,
- the spatial mobility of people, which is nowadays a differentiating factor for residential areas of the city,
- the spatial segregation of the population as a result of unemployment and impoverishment,
- identification of areas of poverty and wealth in the city,
- the nature of crime and its links with the areas at risk of other negative social phenomena,
- the life conditions of the inhabitants of these medium-sized towns viewed from the more objective perspective given by standard of living and from the more subjective considerations encapsulated in the concept of 'quality of life',
- comparison of the perception of urban space in terms of the attractiveness of housing, the security of areas and investment in them.

These research questions were used to examine to what extent urban space is diversified and whether there are similarities in the intra-urban distribution of the phenomena discussed in the cities involved.

To advance the research, the following general hypothesis has been put forward: medium-sized

cities in the North of Poland nowadays exhibit similar differentiation of urban social space.

The research questions formulated required the use of multiple sources of information, from both primary and secondary sources, and the application of a number of quantitative and qualitative methods. The most important proved to be direct field studies which were conducted in 2002-2006. These included:

- investigation in the departments of the municipal offices of Lębork, Szczecinek and Wałcz (eg. the combined analysis of 26.7 thousand check-in and check-out cards used by migrants to register their arrival or departure with the local administration), as well as in other institutions, such as the Social Services Offices (combined analysis of five thousand family records), the offices of the local Employment Agency (including analysis of the characteristics of 12.3 thousands of the unemployed) and in the police stations (crime overview of several available years),
- cognitive surveys, which were qualitative and exploratory, whose purpose was to take account of the subjective feelings of residents in the cities regarding their living conditions and the level of affluence of the population (involving 5.6 thousand questionnaires),
- field surveys based on the housing inventory (with a total of 6.9 thousand buildings accounted).

The methods used in the analytical part included methods of statistical analysis and techniques for spatial classification, which produced results in the form of tabulations, charts, cartograms, cart diagrams and maps. Among the specific methods worth emphasizing were demographic indicators for the spatial differentiation of population phenomena and structures, localization indicators and segregation indices.

The delimitation of areas of residence of prosperous and poor people was made in two ways. Firstly, an indirect method was used – an assessment of the state of their housing. Also, an indicator of the quality of the housing structure was devised. In the second stage, a survey was used, which allowed a comprehensive approach to the technical standard of apartments and to their equipment in durable goods, to the income of the population, to their financial dependence and to their lifestyle (mainly their way of spending free time in the latter case). From the

responses, an index of standard of living or well-being was constructed, which consisted of four dimensions: technical, material, economic and social. The analysis of areas of poverty was carried out with reference to official definitions of the poverty level. In addition, both for the poor, as well as for the unemployed, indicators of the lack of similarity in their distributions were computed (ID) plus segregation indices (IS) and localization indicators (LQ), which help to show the level of segregation of these social groups in the city and facilitate comparison between the three cities studied (Szymańska 2007b). In the case of subjective feelings about living conditions and the perception of the city in terms of existential, residential and social values, a psycho-social method was used. In this method – based on the indications people gave of good and bad areas in terms of characteristics included in the study (obtained through surveys) – a differential rate was prepared, which was the difference between the number of positive and negative responses. From the results, maps evaluating urban space in terms of housing, security and investment were created.

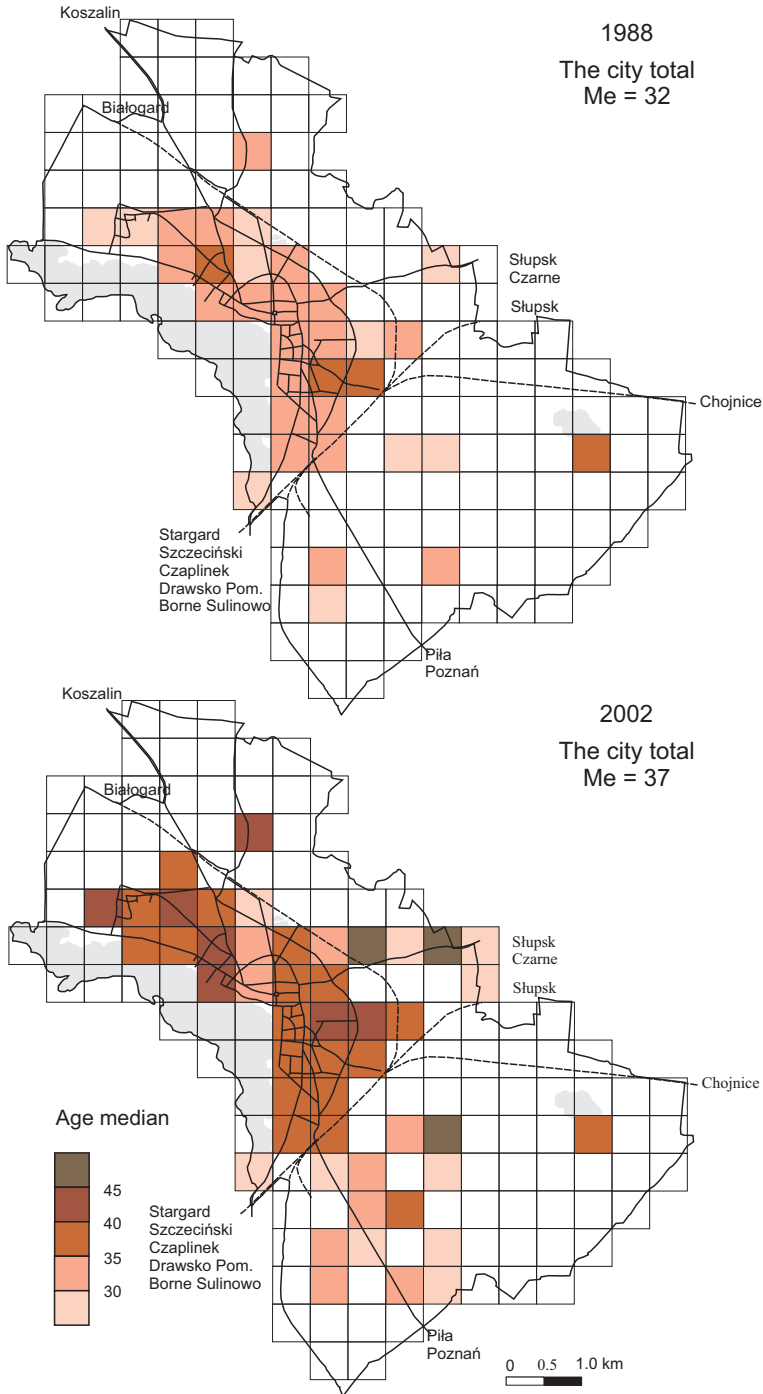
In the final part of the study, an attempt was made to systematize the information gathered and to determine the spatial patterns of the diverse elements of the societies of the three cities. A comparison was made using McQuitty's multivariate analysis of elemental connection. This method leads to the identification of groups of elements on the basis of the greatest similarity between the elements. By using this method, 5 zones characterizing the social space of the cities analyzed were distinguished.

## Study results

The measures of change in the distribution of population in the area of the cities analyzed, do not indicate a radical change during the period of transformation. There is a slow process of filling the available peripheral areas of the city with population in each case. There has been a slow depopulation of the city centers, but it seems contentious to speak of a 'population crater' at this point. The development of suburbs as such is not really observed, it is rather the populating of less accessible areas still within the administrative boundaries of each city, mostly along major traffic routes (Szymańska 2007b).

In the years 1988-2009 there is a very clear tendency for demographic aging. This is reflected in a declining share of the youngest age groups, while the proportion of older population dramatically increases. This change also has a spatial expression. The most visible change, a reduction in the child dependency ratio when calculated as the ratio of population in the pre-production age groups to population of working age, was observed in urban centers and within large multi-family housing units constructed in the era of socialism. 'Rejuvenation', an increase in the proportion of younger people, occurs in peripheral areas where there are newly created small housing estates. The opposite tendency may be observed in the distribution of the oldest groups. The aged dependency ratio calculated as the ratio of population of retirement age to population of working age shows the highest values and greatest change in the city centers and in the areas of multi-family housing estates, though these changes are not as spectacular as for the child dependency ratio. In downtowns, the largest increase in this index is restricted to the core area of the city centre, while in areas of multi-family housing the largest increase is in the earliest settled estates. At certain points on the periphery there is a rise in the proportion of older people, although it is limited to areas where older houses, often constructed during the prewar period as single-family homes, are now occupied by multigenerational families. This phenomenon is illustrated by the distribution of the values for median age of the population. In the years 1988-2009, the middle age of the population increased by 7 years, which is also reflected in increasing contrasts between areas within the city. As Figure 1 indicates, there was an increasing intra-urban polarization of younger and older population between 1988 and 2002 shown by the wider range of values for median age within the city in 2002. The spatial pattern of this contrast in age structure generally coincides with that for the distribution of values for the dependency ratio expressed as the ratio of population of retirement age to the population of working age.

As regards the differentiation of internal structure, intra-urban migration has an important place; of the total volume of migration in the cities analyzed, it accounted for 50% in Szczecinek, 57% in Wałcz and 60% in Łębork. Such a high percentage of intra-urban mobility accords with Zelinsky's (1971) concept of a spatial mobility



**Figure 1.** Median age (Me) in Szczecinek in 1988 and 2002.

Sources: based on National Census data of 1988 and information obtained at the City Hall in Szczecinek in 2002.

transformation which implies a high level of this type of migration in the third, fourth and fifth phase of the development of a city. Intra-urban mobility of population (observed for a period of 5 years) has remained relatively stable, with the exception of some increase in the amount of intra-urban displacement in Łębork in 2001 (1,242 changes of address) and in Wałcz in 1997 (1,121 changes of address). In the other years observed it remained almost unchanged in all three cities, that is about 900 changes of address in Łębork, about 950 in Szczecinek and about 750 in Wałcz. In this type of migration, the most frequent participants were young people in two age groups: 20-29 years and 30-39 years. This relates to the life cycle, involving firstly young people becoming independent then improving their living conditions, a pattern which can vary according to family and economic situation.

Polish cities are now the source of some controversy regarding the applicability of this model to the realities of post-socialist society. However, Zelinsky's hypothesis can be applied to the largest Polish cities, which have slowly been transformed into the main centers of large metropolitan areas, as it seems to explain fairly accurately changes taking place in their populations (Marcinowicz 2000). The analysis of mobility in medium-sized cities also gives ground for applying this model.

The direction of movement of the population exhibits some regularity in urban space (Fig. 2). Population losses are clearly observed within the earliest built multi-family housing and in the central parts of the city. Increases in population, however, are mainly noticeable in multi-family housing built from the early 1990s up to the present and in newly formed areas or growing housing estates, mostly located outside the area of built-up land and of a discontinuous nature. The mobility of inhabitants of these cities shows how residential space typically becomes differentiated as those able to move do so to more affluent areas in more congenial surroundings. In the contemporary situation it now seems reasonable to assume that change of place of residence depends mainly on the following: the existing socio-spatial structure of the city, the level of knowledge and perception individuals have of this structure and their reasons for making the decision to relocate, associated with their preferred system of values and lifestyle, their household size and their eco-

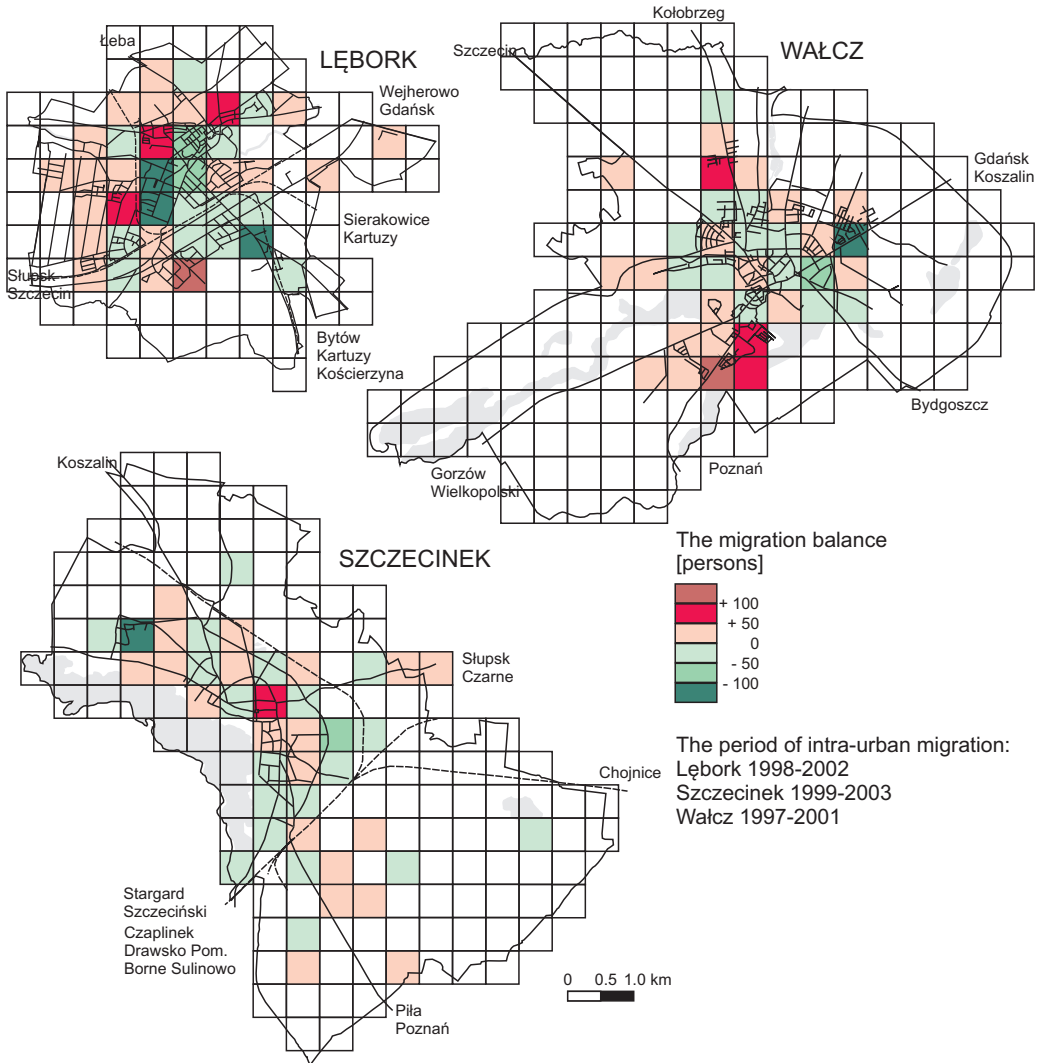
nomical resources (Liszewski 2001; Węclawowicz 2003).

Currently, the main directions of movement for migrants in these medium-sized cities depends on the policy of the city, predominantly reflecting new areas for housing development (usually single-family or multi-family of a higher standard), but also ongoing regeneration activity and the associated introduction of apartment complexes in the oldest areas of the urban fabric. Thus the pattern of change broadly accords with the process of differentiation of residential space in economic terms.

The index of housing quality illuminates these relationships in more detail. The largest number of people – about 40% – live in flats built in the 70's and 80's and about 28% live in pre-war buildings. Within this latter group, some are old tenement houses (apartment blocks), but some are interwar single family houses. Using the occupation of a new home as a sign of wealth, it should be noted that about 15% of the population of the three cities live in housing stock built after the end of the communist period and also belong to the richest group of residents. Evaluation of the quality of housing in the area showed that most dwelling units are of good or average condition (Fig. 3). This generally applies to housing in a broad ring surrounding the city centers but also to those areas of the outskirts where groups of pre-war single-family buildings are located. In the immediate centers themselves, there is no clear dominance of any particular quality of housing, with the partial exception of Łębork. Of the 19th century buildings in the centres, some have been privatized, refurbished and have services located in the lower floors, there are also some that require major repairs or are suitable only for demolition. There are also new developments, infilling spaces created by the demolition of old houses and generally bearing some relation to the architecture of the old town. Any poor or very poor housing is mostly found on the outskirts of the city centers where there are tenement houses in disrepair or buildings of substandard condition built in the early 20th century, whereas enclaves of the best construction can be observed very clearly in some areas of new estates of single family housing.

The spatial distribution of housing quality correlates to a fair degree with the distribution of wealth, which is presented in Figure 4 using an index of wealth based on four dimensions: technical, physical, economic and social. These results





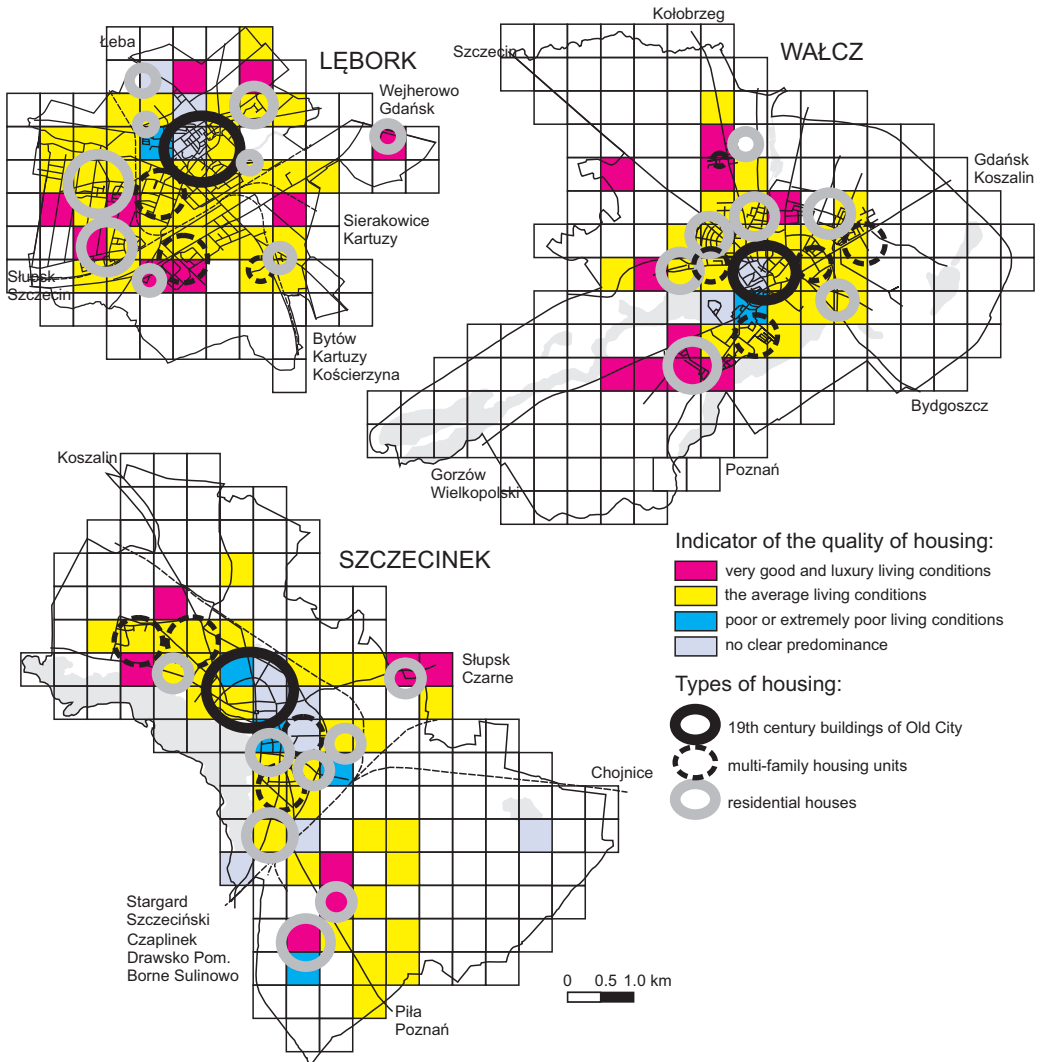
**Figure 2.** The balance of intra-urban migration in Lębork, Szczecinek and Wałcz.

Source: Check-in and check-out cards of the addresses of residence, Civil Registration Department in Lębork City Hall; own elaboration.

show the polarization of living conditions in the population. Enclaves of population in the two most prosperous categories in Figure 4 are all on the outskirts of the built-up area, and they all consist of single-family housing constructed after 1990. In the central parts of the city most areas consist of multi-family residential buildings, but there are also areas of pre-war single family housing occupied by people enjoying an average standard of living. The poorest areas, however, are mostly on the edge of city centers (quite noticeable in Lębork) and near railway lines, (particularly notice-

able in Szczecinek and Lębork in Figure 4) but also include parts of the areas of pre-war single family housing.

Two objective measures of social disadvantage (level of poverty and the location quotient of the poorest section of the population) help to define more precisely particular areas of poverty (Fig. 5). Generally these areas of poverty and social exclusion are found in parts of the city centres and areas peripheral to the centres, but some also occur in a few isolated areas on the outskirts of the cities, mainly with a small number of people.



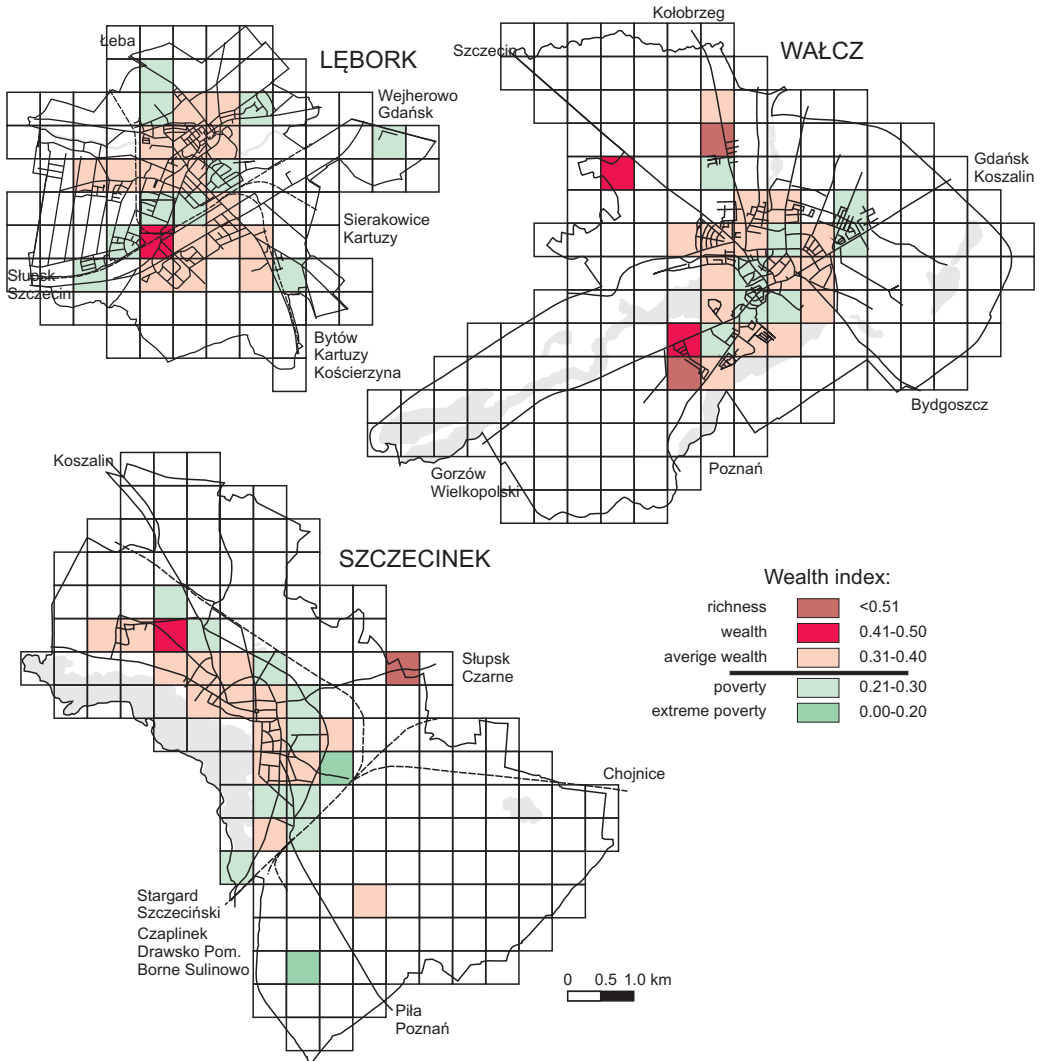
**Figure 3.** The quality of housing in Lębork, Szczecinek and Wałcz in 2006.

Source: Rydz & Szymańska 2007; Szymańska 2011; own elaboration.

It appears that the rich are beginning to concentrate in spatially isolated enclaves of high quality housing and poor people in areas of old, depreciated construction. While this phenomenon does not yet occur to such an extent in these medium sized cities as in metropolitan areas, nevertheless there is still the danger of the segregation of the poor intensifying.

As with the distribution of the poor, the distribution of the unemployed is to some extent spread across the distribution of the population as a whole. However, the localization index of the unemployed population (Fig. 6), measuring the

degree of segregation of social groups in relation to the rest of the population in the 3 cities, shows that the areas most affected by this negative phenomenon are sparsely populated areas on the outskirts of the cities. To some extent, a strong degree of segregation of the unemployed population is also found in parts of the central areas where there are pockets of substandard buildings. This phenomenon is not as marked as for the concentration of the poor, as evidenced by lower values of the segregation index for the unemployed than for the poor. In more than half of the areas the actual level of unemployment exceeds the percentage



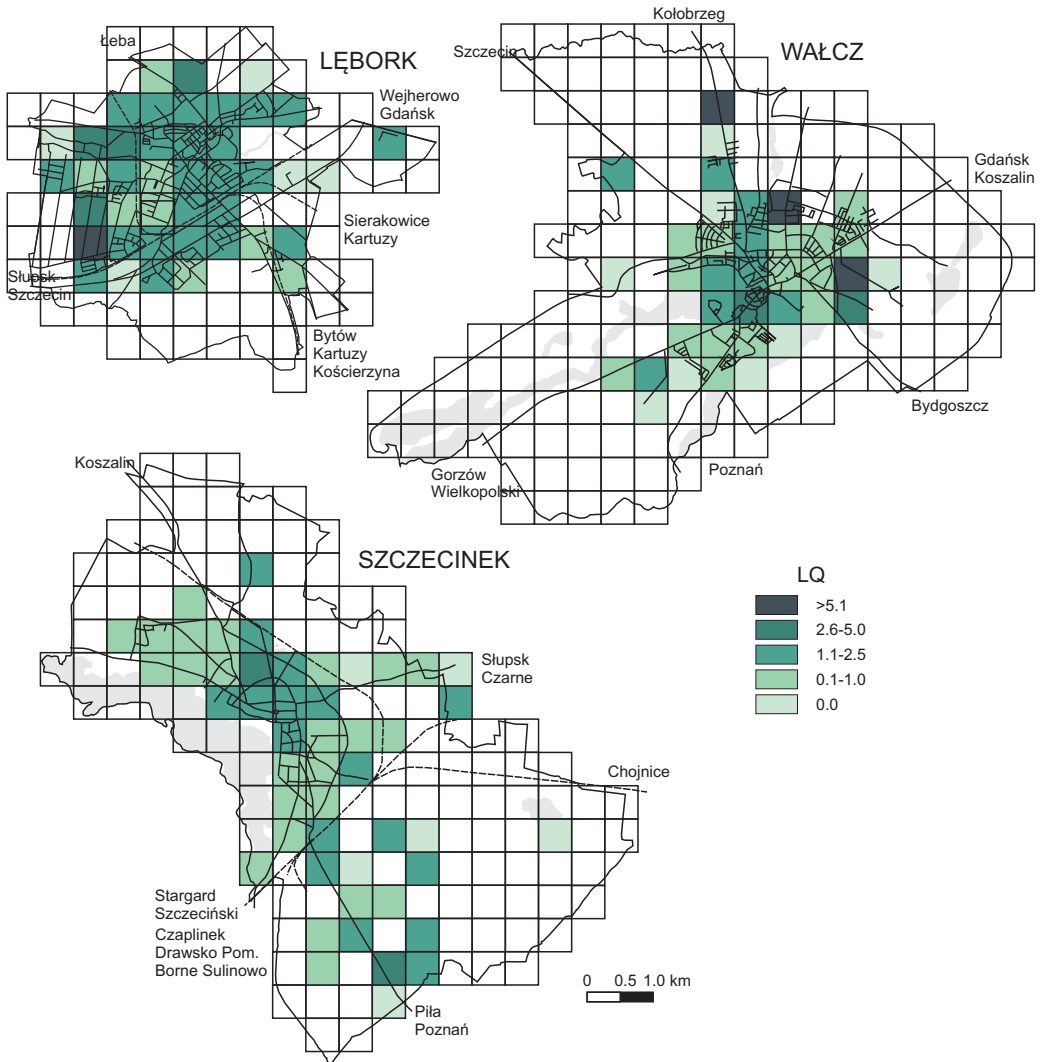
**Figure 4.** Indicator of wealth in the populations of Lębork, Szczecinek and Wałcz in 2006.

Source: field research conducted in Lębork, Szczecinek and Wałcz in 2006, Szymańska 2007a, 2011.

classified as below the poverty level. This suggests that not all families experiencing unemployment need the help of state institutions or that they do not expect such assistance, because they are likely to earn money in the black economy and only register at the employment office to obtain certain privileges in using health services.

Phenomena associated with various kinds of social pathology (including organized crime), as discussed by Wódz (1989), are important elements in evaluating the space within a city. In these medium-sized cities, there appears to be a relationship between spaces serving particular

functions and the types and frequency of crimes committed there. The most dangerous areas are city centers and areas directly adjacent to them, because the largest number of crimes and the widest variety of types of crime are committed there. These are multi-purpose areas where there is the highest density of transient population and therefore offenses like mugging or other types of theft are frequently recorded there. The use of entertainment services by the public brings many people (and therefore potential targets for crime) to these areas and there are also thefts from the many commercial facilities. Events like petty theft



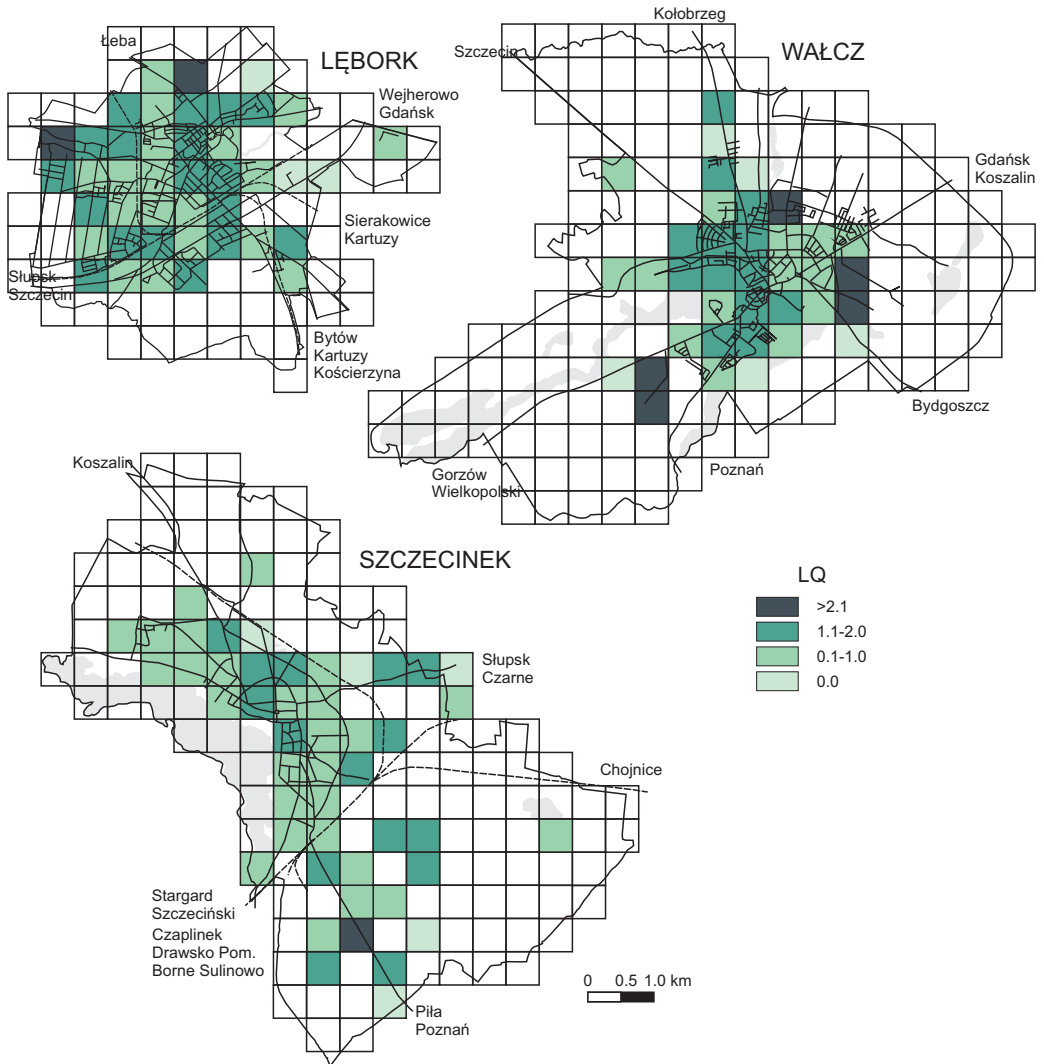
**Figure 5.** Index of spatial segregation of the poor in Łębork, Szczecinek and Wałcz in 2002-2004.

Source: Szymańska 2011: 85.

and mugging occur most frequently in the vicinity of railway stations. In residential areas the crimes mainly recorded are breaking into flats, basements and garages. Electronic surveillance and using modern security systems significantly reduces the number of criminal acts committed, as these are neighborhoods that do not generate crime, but only attract criminals who aim to take someone else's property. In neighborhoods of single-family houses, burglaries are less frequent than in areas of multifamily housing. Larger population centers tend to foster higher anonymity and hence greater opportunities for thieves. A relative-

ly low incidence of crime occurs in areas where buildings are of poor quality, possibly because these areas may be where criminals themselves reside and because they lack the kinds of goods that would attract criminals.

When respondents were asked about the quality of urban life in the social surveys, their replies partly reflected subjective feelings related to their own social status, to a sense of social awareness and to an affinity with their own city, which meant they identified with the local community and its problems. Most of the residents of Łębork (77.5%), Szczecinek (87%) and Wałcz (81%) are gener-



**Figure 6.** Index of spatial segregation of the unemployed in Lębork, Szczecinek and Wałcz in 2002-2004.

Source: Szymańska 2011: 93.

ally satisfied with living in their own city, but new immigrants show more satisfaction than native inhabitants, and the level of satisfaction generally increases with age. Spatially, the best knowledge and familiarity with their city is shown by residents of peripheral neighborhoods who are the richest section of the population, while that of the population of city centers and areas surrounding them is decidedly worse. Residents show awareness of the existence of social problems in the cities, which mainly concern the lack of prospects for young people, plus unemployment and poverty. They call for action to eliminate these negative

features by 'a fight against unemployment', help for the poor, building affordable housing, improving road infrastructure and attracting foreign capital. At the same time, they show awareness of beneficial projects and suggest investments that could contribute to the improvement of their living conditions. The proportion of the population with a positive perception of policies introduced to solve the preceding problems is significantly lower than that satisfied with their life in the city (Lębork - 34%; Szczecinek - 50%; Wałcz - 27%). It can therefore be argued that a strong affinity with the city is probably mainly related to one's

immediate neighborhood or to well known or iconic areas of the city and does not necessarily imply knowledge of policies and their implementation over the whole city. Hence policies or projects implemented in particular parts of the city do not always affect how people perceive quality of life in its other districts.

From how they have been changing their locations residents seem to have been deciding that, in terms of the attractiveness of housing, security and infrastructure, the most desirable areas to live in and at the same time very safe and well provided with infrastructure are the city centers in Łębork and Szczecinek, while in Wałcz only the largest estates of multi-family buildings built since the 1980s seem to merit such a positive description (Fig. 7). Rather, the population of Wałcz generally describe the areas of the city center as unfriendly to live in and dangerous, though well served in terms of infrastructure. In a sense, this is probably a result of the large volume of road traffic passing through the center of the latter city (national roads No. 10 and No. 22). Generally, a zone extends around each city center which is rather negatively perceived in terms of each of these elements, but the range of negative perceptions of such areas is much worse in terms of insecurity than as regards the quality of housing or infrastructure. Fairly positive assessments are also accorded to estates of multi-family housing constructed after 1980 and located outside estates of single-family housing.

## Conclusions

A range of socio-demographic data for 3 medium-sized cities, was analyzed by using Mc Quitty's multivariate analysis of elemental connection (application of this method is discussed by Domański 1980 and Runge 1992). This analysis involved 13 variables<sup>2</sup> aggregated into grid cells, each 0.25 km square. This allowed five zones of fairly similar character to be distinguished in the cities discussed (Fig. 8).

<sup>2</sup> Population density, the rate of population growth in 1988-2002, net inner-city migration, average household size, an indicator of the quality of housing, an index of standard of living, the level of unemployment, the level of poverty of the population, the level of education, the differential rate of spatial indexation in terms of housing, the differential rate of spatial indexation in terms of security, the differential rate of spatial indexation in terms of investment attractiveness, level of security.

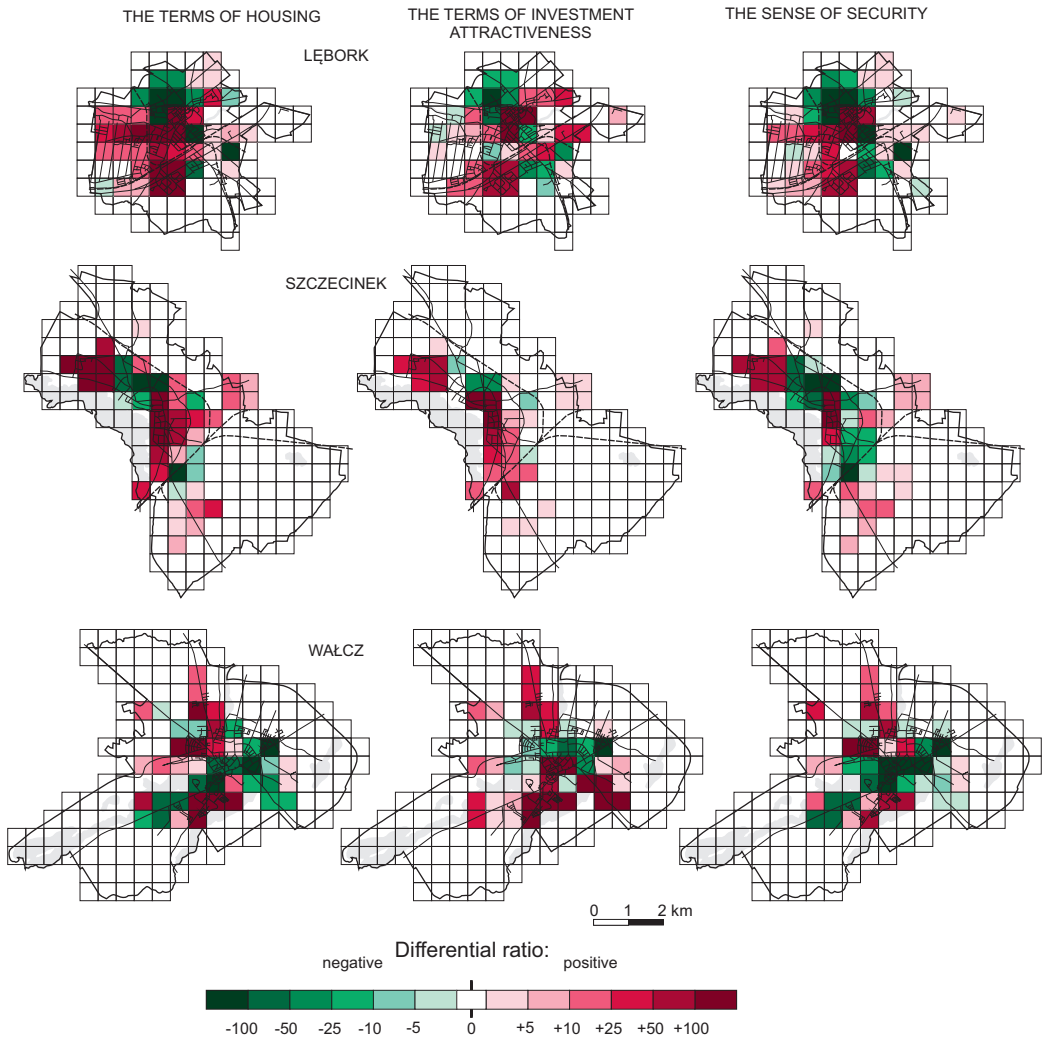
**Zone I (city center)** – covers the central part of the city which is characterized by the highest population density, the most rapidly aging population, the best provision of infrastructure, the highest level of crime, but on the other hand – a relatively well-educated population and a small size of households.

**Zone II (the periphery of the city center)** – is the most neglected and poorest area of the city. It has the smallest size of households (average of less than 3 people), a very poor quality of housing, which is quite clearly the least attractive housing in the city. Moreover, in this area there tends to be the highest segregation of the poor and unemployed and the largest share of the population with no education beyond primary level.

**Zone III (neighborhoods of single family housing)** – occurs around zone II, with these areas frequently overlapping and mixing. It consists of areas of rather low and medium density of population. A characteristic feature of this zone in comparison with other areas is the occurrence of relatively large households. There is also a clear polarization of social groups and associated problems. The inner areas of the zone tend to be inhabited by the poor and the unemployed and by people with low incomes, while the outer areas by quite wealthy people. Generally the zone is very highly rated by people in terms of housing and safety.

**Zone IV (large housing estates)** – is not a continuous zone spatially. Most frequently it plunges like a wedge into zones III and II, often directly touching the area of zone I. This zone includes areas of relatively large population – in the form of large settlements of multi-family homes. The population of this zone has very high mobility as regards inner-city migration. Quite a high proportion of elderly population occurs here but lower than in zone I. A striking feature of this area is the existence of a discrepancy between unemployment and poverty, because alongside a very high incidence of segregation of the unemployed, the index of the level of poverty shows relatively low values.

**Zone V (new and exclusive buildings)** – by surface area this is relatively the least extensive, being in a rather early phase than functioning for a long time. Characteristically, it only consists of enclaves and is associated with major transport routes. It is the richest zone and one which is very sparsely populated. Its elite character is demonstrated by the level of education which is undoubt-



**Figure 7.** Evaluation of urban space in Lębork, Szczecinek and Wałcz in terms of housing quality, infrastructure and a sense of security and in 2002-2004.

Source: surveys in Lębork in 2003, in Szczecinek in 2004 and Wałcz in 2002.

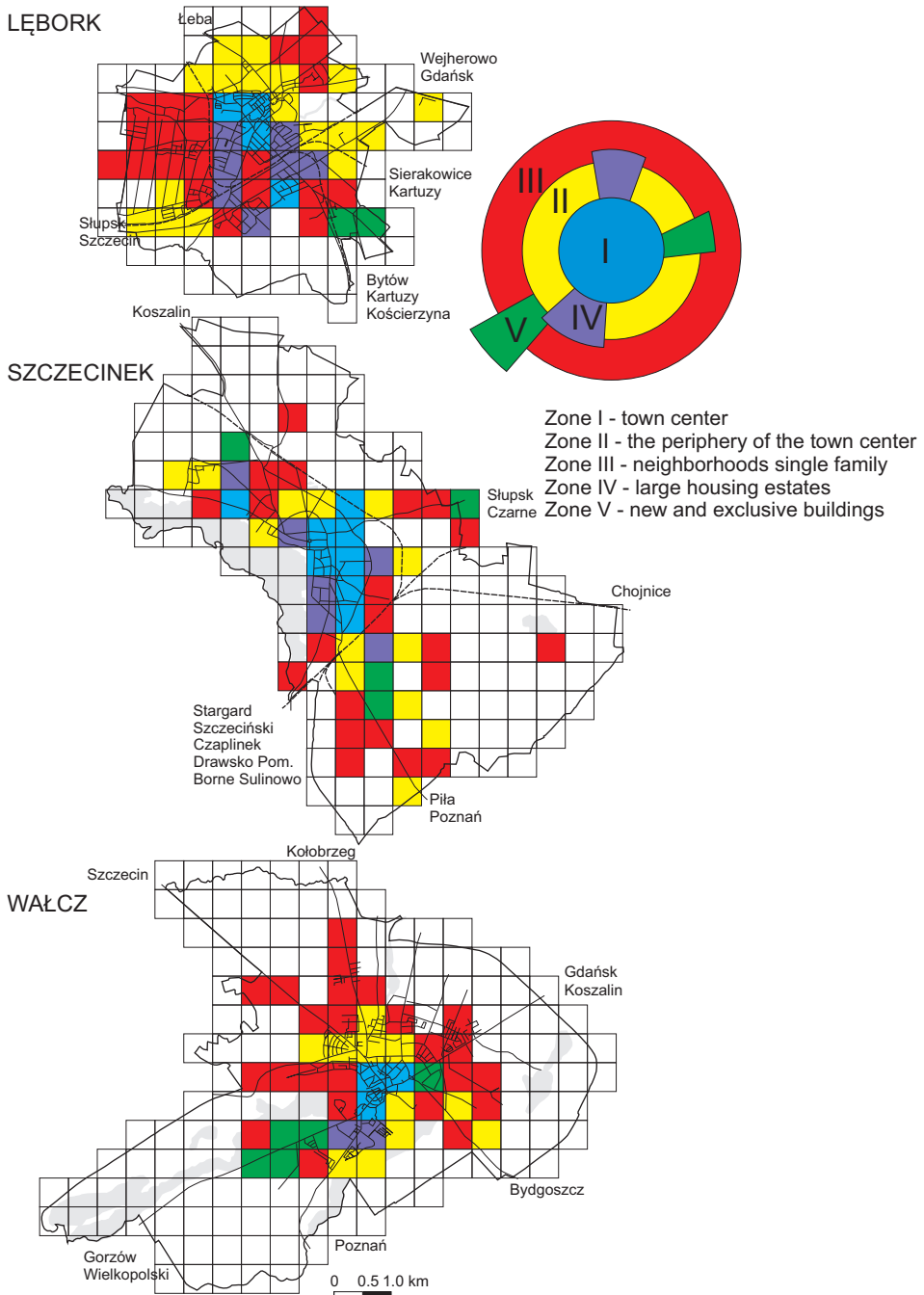
edly the highest in the city. In the whole zone there is a very low unemployment rate, almost a complete lack of poor people, a very high standard of housing and a high level of security. These areas are seen by locals as very attractive both in terms of housing and security, but only as rather moderately attractive in terms of infrastructure.

In conclusion it should be noted that in the cities discussed:

- there is a fairly clear similarity in the spatial arrangement and the nature of the zones across the diverse social space of these medium-sized cities,

- the elements disturbing the continuity and the course of particular zones or phenomena are natural factors (often acting as barriers), but generally the pattern of distribution of social groups and phenomena remain similar,
- within the diversity and complexity of these societies the legacy of the previous socio-political formation can be observed, which is gradually being remodelled under the influence of new forces.

The model presented of socio-spatial differentiation in medium-sized towns in Pomerania does not exhaust all the possibilities of theoretical and



**Figure 8.** The socio-spatial structure of medium-sized cities in northern Poland using the examples of Łębork, Szczecinek and Wałcz.

methodological analysis, as such analysis is a very challenging task due to the complexity of social phenomena and the multiplicity of concepts available to explain them. The attention given here to

specific social behaviors and social phenomena may provide a basis for further research and/or verification of the results presented here. Previous studies of Polish cities, using very general frame-



works, permit us to confirm that the model of the structure of medium-sized post-socialist cities broadly complies with other Polish cities. It seems this model is relatively consistent with a model of the social structure of Cracow presented by Zborowski (2005) and one for Łódź put forward by Marcińczak (2009), although these were outlined on a slightly different methodological basis and for much larger cities. The present study definitely confirms the presence of elements of the classical models (concentric and sectoral). In addition, population density decreases from the center to the periphery and there are changes in social status with a tendency for this to rise in the 'central' zone, a phenomenon which is generally referred to in

the literature as a 'gentrification process' and is undoubtedly associated with the revitalization of central areas of historical value. The perception and evaluation of cities seems to clearly distinguish a negatively viewed zone, 'the fringes of the center', from 'the center', viewed much more positively and increasingly for more and more exclusive, upmarket housing developments. In addition, this clearly shows a tendency for polarization within society and an increase in contrasts can follow.

Editors' note:

Unless otherwise stated, the sources of tables and figures are the author(s), on the basis of their own research.

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