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PRZEMYSŁAW PLUCIŃSKI
Adam Mickiewicz University

MAREK NOWAK
Adam Mickiewicz University

LUCYNA BŁAŻEJCZYK-MAJKA
Adam Mickiewicz University

On the Nature of Neighborhood Relations in Late-Socialist Blocks of Flats (LSBF): Evidence from Poland

Abstract: The paper analyses the neighborhood relations within late-socialist blocks of flats (LSBF) in contemporary Poland. LSBF were a response to the housing famine of the post-war years and were constructed with the ideas and tools provided by the followers of Le Corbusier's modernism. LSBF were part of late-socialist housing policy. They still constitute a very important element of the urban landscape and have served as a source of inspiration for subsequent development projects. This paper attempts to conceptualize neighborhoods in LSBF. It analyses the historical context of LSBF and presents the results of empirical studies conducted in three different-sized locations: a small town (Wronki), a large city (Poznan), and a metropolis and at the same time the country's capital (Warsaw). The paper employs comparative statistical analysis, considering variables that may affect neighborhood specificity. The results of our study indicate a relatively high degree of vitality in neighborhood ties among residents in LSBFs.

Keywords: neighborhood circles, invisible ties, late-socialist modernism, housing

Introduction

The study of neighborhood relations, while not a prominent issue in urban sociology today, is one of its founding concerns. This is due, at least in part, to the changes in cities themselves and to the increasingly widespread convention of doing case studies or monographs of isolated communities: communities of migrants, refugees, sexual minorities, and many others. Therefore, making hypotheses about the diminished importance or even erosion of neighborhood relations seems decidedly premature, especially when viewed from a historical distance. This is the case, for example, with neighborhoods in large urban modernist housing estates in Central and Eastern Europe.

The above-mentioned "lack of exposure" lies also on the side of conceptualization. As some researchers point out, it is difficult to define the concept of neighborhood: hence, it is sometimes defined in an "implicit" or intuitive way (Galster 2001: 2111). A certain universalization, originating in Tönnies's sociology and identifying neighborhood with community, has been the most common "mental shortcut" in research on neighborhoods (Lewenstein 2018). Longings for a "lost paradise"—understood as communities of residence based

on "strong ties"—are unsustainable today, given rapid and intense global urbanization. Additionally, the perspective on neighborhoods is different for representatives of various disciplines: urban sociologists, space psychologists, social geographers, urban planners, historians, or planners. On the one hand, therefore, "neighborhood" appears as "an all-encompassing term" (Jenks, Dempsey 2007: 159). On the other hand, however, it does not seem possible to speak of neighborhood in a universalistic manner because neighborhood relations are deeply entangled in the historically shaped, cultural, class, or regional specifics of particular communities, and are often reinforced by institutional conditions (e.g., legal and organizational).

This paper reviews the dominant ways of looking at the concept of neighborhood. As these ways all have a distinctly "Western" provenance and were developed outside the context of the article's focus (Central and Eastern Europe), it was assumed that they would have limited usefulness in analyzing Late-Socialist Blocks of Flats (LSBF). Consequently, an attempt has been made to conceptualize the idea of neighborhood in such a way that LSBF can be analyzed. Additionally, historical analysis of modernist habitation, which was necessary for understanding the continuity of the LSBF phenomenon, and an empirical analysis, detailing the idea of neighborhood in relation to Polish LSBFs, were proposed.

This paper attempts to answer three research questions. First, can we speak of the relative persistence of the utopian-constructivist aspect of socialist modernism and its influence—through the urban model—on contemporary LSBF social relations? Second, what areas of neighborhood relations are influenced by the size of the city in which an LSBF is located? Third, what are the specifics of neighborhood relations among contemporary residents of LSBF? The first question was answered using historical analysis, which further helped to contextualize the rest of the argumentation. To answer the remaining two questions, the results of a survey were used.

On the basis of the theoretical backgrounds that were adopted, the following chapters present a proposal for conceptualizing the idea of neighborhood in relation to LSBF, the results of historical analysis, and empirical research conducted in Poland in three cities of different sizes: Wronki, Poznan, and Warsaw. The article ends with a brief discussion of conclusions, with suggestions for future research on neighborhoods, especially in LSBF areas.

The Tradition of Neighborhood Studies

The genesis of the modern account of neighborhood is strongly linked to the aspect of neighborhood planning, hence Ebenezer Howard's constructivist concept of the garden city—a spatially and numerically constrained neighborhood of "radiatic concentric rings" (Baffoe 2019: 2). Although Howard's vision was not more widely realized, it entailed the idea of shaping neighborhood identity through planned communities (Gauvin et al. 2007). A slightly different approach to neighborhoods was adopted by representatives of the Chicago school, especially R. Park, who transferred the idea of plant ecology to social relations. The competition for space was the essence of neighborhood relations. The strength of the Chicagoan studies lay in their ethnographic precision, while their most

obvious weakness was generalization (Baffoe 2019: 3), which diminished the importance of the cooperative perspective.

Historically, neighborhood studies have been founded on two competing approaches: (1) "utopian-constructivist," which found its continuation in the well-known "phenomenon of socialist modernism"—a subject of further empirical analysis in this article, and (2) "eco-competitive," referring to a vision of social dynamics and formation of social relations based on "natural" selection processes. However, both perspectives also had a point in common: they focused on depersonalized mechanisms and exogenous determinism.

Currently, depending on the perspective taken, a threefold understanding of the idea of neighborhood is encountered: (1) neighborhood as place; (2) neighborhood as policy unit; (3) and neighborhood as community. These perspectives often overlap, in varying proportions. However, this does not change the fact that for analytical purposes they can be characterized separately.

Understanding of neighborhood as place focuses primarily on its physicality. "Neighborhood" is understood in various ways: as a locale (a site of daily life), a location (a site with connection to macro-contexts: social, political, and economic) or a sense of belonging (affective feelings toward a place). These traces can be seen, among other places, in Galster's widely quoted statement that "neighborhood is the bundle of spatially based attributes associated with clusters of residences, sometimes in conjunction with other land uses" (Galster 2001: 2112).

Understanding the neighborhood as policy unit emphasizes its importance as a mobilizing potential against top-down policies, for example, in relation to the application of neoliberal policies at the local collective level (Baffoe 2019: 5). It is, for example, a base for bottom-up civic activism and the formation of supra-local structures and neighborhood coalitions and even social movements (Basolo, Strong 2002).

Understanding of neighborhood as community refers most strongly to the traditional sociological understanding of neighborhood. The boundaries between the concepts of neighborhood and community are not clear and researchers divide over the matter (Blokland 2003; Davies, Herbert 1993). Some, although not the majority, use these concepts synonymously. Aitken (2000: 74) argues that communities have clearly defined borders and boundaries (objective conditions), while neighborhood is more subjective (relational conditions). However, this view is not dominant and is often questioned. As Jenks and Dempsey point out, "there is also a strong contingent in the literature who argue that a 'community' cannot be divorced from its physical setting because it has a spatial context that must be accounted for" (Jenks, Dempsey 2007: 158). Moreover, the authors emphasize the duality of both communities and neighborhood. In their view, community should be seen both as "a physical setting for social intercourse and as a non-physical concept" (Jenks, Dempsey 2007: 158; Gotham 2003), and the same duality is observed within "neighborhood(s)" (Jenks, Dempsey 2007: 158).

This leads to the conclusion that having a universal research-programming perspective on understanding neighborhoods is difficult. Therefore, the above-mentioned characteristics must be applied to a specific empirical reality each time. Moreover, the popularized and strongly normative idea of "neighborhood as a community" obviously needs to be revised.

Since the subject of the study is neighborhood relations in LSBF, its *differentia specifica* must be brought to the fore to conceptualize the phenomenon.

Conceptualization of Neighborhood in LSBF

In this paper we adopt the idea of the "social production of space," a tradition rooted in international (Gottdiener 1993; Lefebvre) and Polish urban sociology and in the sociology of space (Jałowiecki 2010). Thus, we assume that space is not a purely physical but rather a social phenomenon, and that various groups of actors and stakeholders decide on its nature, ways of using it, and finally, the types of social relations that are established in a particular space.

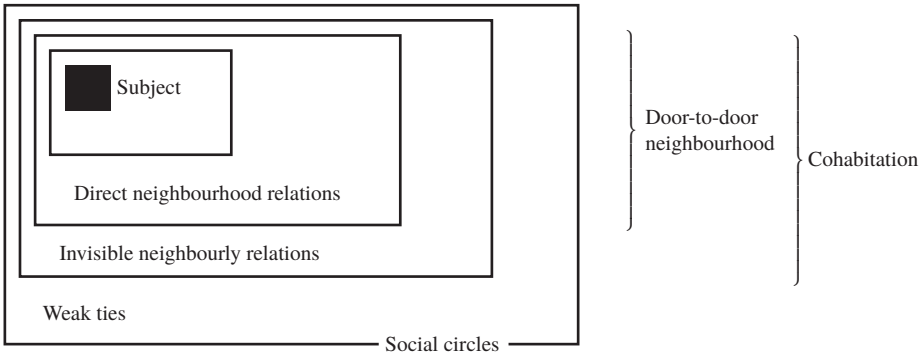
The sociological understanding of neighborhood, while it must consider (1) spatial and planning factors, (2) economic factors, and (3) political or administrative factors, cannot be reduced to these. Neighborhood, as we understand it, is therefore (4) a complex social construct with social relationships at its core. As Manadipour has argued, neighborhood is "manifestations of social relationships while affecting and shaping the geometries of these relationships" (Manadipour 1998: 81). Moreover, the quality of relationships, so understood, is directly dependent on housing type (Baffoe 2019: 4). It will consequently be different within gated settlements (Gądecki, Smigiel 2009), in inner-city contexts (Haase et al. 2012), single-family housing estates, and suburban settlement spaces (Kajdanek 2012), and finally, different within metropolitan LSBF (Nowak, Pluciński, Siatkowski 2019; Nowak, Siatkowski 2021a, Nowak, Siatkowski 2021b). It was assumed that the specificity of the development, to a certain extent, co-shapes the neighborhood itself (cf. Manahasa, Özsoy 2020). Thus, we can speak of the relative persistence of the utopian-constructivist aspect of socialist modernism when we subject this type of neighborhood to examination. This, however, entails certain consequences.

If we focus on spatial and planning factors, we can say that estates of modernist blocks of flats have been an element of the urban fabric of Central and Eastern Europe for many decades. In most cases, they are highly functional urban complexes. They were equipped, by the planners of those era, with most of the necessary institutions, such as health care centers, kindergartens, schools, cultural centers, or shopping complexes, which are not to be found in today's housing estates, where the active housing policy of the public authorities was left thirty years ago to the forces of the free market and private investors. Thus, it may be concluded that LSBF in Poland are still an effective response to the post-transformation housing demand, even as the late-socialist housing infrastructure is in need of repair and undergoing natural devaluation. This is directly connected with economic conditions: LSBF apartments are cheaper on the secondary market than new constructions. They are a response to the demand of the predominantly numerous groups of middle- and lower-income residents, including those who treat apartments in old modernist LSBF as temporary while in search of a higher standard of living. Therefore, LSBF in Poland retain their vitality, especially in the social dimension, if only in relation to the availability of middle-class housing. Thus, it is difficult to speak of the mass decline of neighborhoods in the indicated areas as is sometimes discussed in the literature (cf. Feijten, van Ham 2009).

For the purpose of conceptualizing neighborhood in LSBF, the already empirically applied idea of neighborhood circles (Nowak, Pluciński, Siatkowski 2019; Nowak, Siatkowski 2021a, Nowak, Siatkowski 2021b) was used, thus making Georg Simmel's concept of social circles, which is experiencing its second youth, a point of reference (cf. Blau, Schwartz 2018). The proposed paraphrase of Simmel assumes a cohabited space may connect individuals belonging to different and varying social circles—in this case a mass residence. Although the idea of a concentric account of neighborhood relations is sometimes criticized (von Stülpnagel, Brand, Seemann 2019), it has demonstrated its empirical utility based on the conceptualization adopted.

Fig. 1

The concept of neighborhood circles in LSBF



It was, therefore, assumed that the identifying feature of neighborhood relations is their concentricity and spatialization. This means that social (here: neighborhood) relations traditionally identified with a primary group coincide with spatial proximity. The proposed formula of neighborly relations is a neighborly co-presence, which goes beyond close interaction relations and even beyond the exchange of polite pleasantries, based on the maintenance of unwritten but internalized rules of the social micro- and meso-order. This is a peculiar form of soft but internalized control through "watching" and "being watched" while simultaneously producing the appearance of Goffmanian civil inattention.

It seems that the significance of invisible ties understood in this way has not been sufficiently appreciated in previous studies of neighborhood relations. The spatial infrastructure for the co-presence and construction of these invisible ties is constituted, for example, by the cohabited staircase, common spaces in the block of flats, or the neighboring square. Despite the density of habitation, neighborhood relations in LSBF are relations of low intensity and peculiar superficiality, but repeatable and definable through specific patterns of observable behaviors, based on the habitual co-presence of others. Importantly, it is not the uniqueness of the place that is the source of neighborhood identity, but rather the form of mass cohabitation, with its typical multiplied spatial pattern. These characteristics give rise to the concept of neighborhood in LSBF.

Defining neighborhood in LSBF conditions ultimately assumes that people reside in at least potential contact in a limited and spatially defined area and, by virtue of its

characteristics, build a specific type of ties and relationships whose nature is contextual, gradable, and normative (Nowak, Pluciński, Siatkowski 2019; Nowak, Siatkowski 2021a). The perspective presented here distances itself from the habit of "either/or" thinking: either the existence of a community or its demise and consequent social alienation. The proposed concept of social circle includes an assumption of multiple possible relations between the two extremes. This avoids the alternative between weak or strong social ties.

The contextuality of neighborhoods in LSBF, if only as a result of their very high population density and the strong "exposure" of residents to fellow residents, dictates that the "cohesion" perspective be set accordingly (Morrison 2003). The suggestions made by Häußermann and Siebel (2004), who describe the neighborhood dialectic of what is public (*Öffentlichkeit*) and private (*Privatheit*), are relevant here. In their view, under conditions of mass habitation, not only are pressures, including control, important for strong ties, but the right to privacy and even anonymity is equally important. These assumptions were confirmed by research conducted in Warsaw (Klekotko 2020: 121–140). A similar understanding of bonds, based on the balance between strong bonds (open social control) and weak bonds (alienation) is introduced by Felder (2020). Felder calls them invisible ties. These are indirect ties which are often difficult for the untrained eye to grasp and which are open to the "potentiality of relations" of the communal type (strong ties). However, they are activated relatively rarely and *ad hoc*, as the need arises. If there are no such needs, relations are maintained on a potential and ritual level.

Eventually, it was assumed that the logic of (good) neighborhood relations in LSBF is based on such invisible ties, that is, on a specific balance between closeness (in certain circles, accepted by the inhabitants themselves) and the necessity of distance (in extended circles). Thus, a clear gradeability of relations is marked here. In addition, neighborly relations are constructed in accord with specific rules such as self-restraint, however, they may at times be deepened, when necessary. The construction of such neighborhood relations is, therefore, at the same time the process of establishing and maintaining, or possibly enforcing norms of (good) neighborhood, which, depending on the context, involve interaction or restraining contact (Méndez et al. 2021). This is facilitated by the urban form of the blocks of flats. Even today, the specificity of that form and, above all, the deficiencies inherent in mass socialist constructions (including, for example, a chronic lack of parking spaces), co-shapes social relations within LSBF and determines the *genus loci* associated with it.

Methodology of the Study

To answer the first research question, the historical method was used. Among other material, studies in socio-economic history and source texts (laws regulating mass housing) were used for this purpose. To answer the other two research questions, desk research, qualitative research (research walks), and survey results were used.

The survey research was conducted in 2018. It consisted of quantitative questionnaire surveys (online and in the field). Two measurements were then made using a standardized questionnaire. The first involved questionnaire-based interviews conducted in the field by trained interviewers among adult residents of Poznan, Warsaw, and Wronki

(n = 450).[1] Most questions used a Likert scale. The second measurement concerned the infrastructure of the place where the respondents were interviewed. The interviewers themselves filled out an appropriately prepared questionnaire based on their observations of the place where the first measurement was conducted. In this questionnaire, responses were usually expressed on a nominal binary scale.

The interview questionnaire was prepared based on the initial assumptions of the LSBF neighborhood conceptualization developed in the second section of this article. Thus, the questionnaire asked about issues related to the resident's relation to their place and area of residence (block of flats and housing estate), general assessment of the neighborhood, individual assessment of relationships with neighbors, and identification of neighbors. The respondents were also asked what factors favor or limit building neighborly relations. While preparing the research tools, the conclusions of previous analyses dealing with similar issues were considered (Kryczka 1981; Sosnowski, Walkowiak 1983; Kotus 2006, 2007; Bujwicka 2011).

The results of the two studies described above produced a single, relatively extensive database consisting of 94 variables. Standard statistical indicators were used in developing the results. Due to the nature of the variables, the possibilities offered by unidimensional and multivariate nonparametric analyses were used. Cluster analysis, based on Ward's method (Ward 1963; Strahl 1998: 79; Härdle, Simar 2003: 312–313), was used to group the factors supporting and limiting the building of neighborhood relationships. A distance matrix, that is, a transformation of the τ—Kendall correlation matrix was used (Błażejczyk-Majka 2018: 76–85). This was due to the fact the variables underlying the grouping were expressed on an ordinal scale.

The starting point for the quantitative analyses was the creation—based on the conceptualization of neighborhood conducted earlier—of an index of how neighborhood relations are perceived among residents of apartment blocks. The index was named the Near-Neighborhood Index (NNI). It was created based on responses to two extensive survey questions in which respondents declared their level of attachment to their place of residence: their apartment block (first question) and street or neighborhood (second question). Due to the high degree of correlation between the two variables (τ—Kendall correlation coefficient $\tau = 0.812$), the NNI was determined based on the arithmetic mean of the two.

Polish LSBF in Historical Perspective—Institutional and Social Aspects

It is possible to answer the first research question—concerning the sustainability of the patterns and effects of socialist modernism under capitalism—almost exclusively on the basis of historical analysis. It is here that the prerequisites are to be found for inferring the distinctiveness and specificity of LSBF. Consequently their potential vitality can be estimated and it becomes possible to move on to analyses of empirical findings.

[1] The study was co-financed by Amica SA as part of its cooperation with the Adam Mickiewicz University Foundation, and the Institute of Sociology of Adam Mickiewicz University in the form of an action project: "Amica for others," within the Company's CSR activities. Projects conducted under this activity can be found at "Amica for living": https://amicaforothers.pl/ [access date: April 2022].

Research on post-WWII urbanization has a long tradition in Polish urban sociology. It is impossible to refer here to all the studies on modernist mass housing that helped to revive modern urban sociology in post-war Poland. However, it is necessary to mention at least some of them and to distinguish those intellectual and academic centers that most actively contributed to research: Krakow (e.g., studies of Nowa Huta), Poznań (e.g., studies in Eastern Wielkopolska) or Katowice (studies of the urbanization of Silesia and Zagłębie), and Warsaw. In fact, a common pattern can be found in these studies: their subject was primarily the rapid social transformations related to industrialization and urbanization, and—due to the high demand for labor—the proletarianization of the peasantry living in the areas around cities. Thus, the studies of Nowa Huta, which were conducted from the end of the 1950s by large teams and coordinated by Paweł Rybicki (Rębowska-Sowa 1976), the studies of Konin and its surroundings (Markiewicz 1962; Żechowski 1973), and the studies of Tychy (Jałowiecki, Szczepański 2010: 173–187), Płock (Kaltenberg-Kwiatkowska 1974), and Warsaw (Jałowiecki, Szczepański 2010: 187–194) should be mentioned. Modernist blocks of flats were a response to the housing hunger in these areas. These phenomena were also the subject of excellent studies for wider audiences (Chomątowska 2018).

Modernism in architecture developed in the earlier decades of the twentieth century. The widely recognized French architect and urban planner Charles-Édouard Jeanneret-Gris, known as Le Corbusier, was its founding father (Corbusier-Saugnier 1923). The codification of the tenets of modernism were laid out in the *Athens Charter*, prepared under Le Corbusier's guidance and published in 1943. Modernism was a response to the social and housing problems caused by rapid processes of industrialization and urbanization (Motak 2003). The goal, as it was termed, of "housing machines" (Millais 2017: 57–69) was thus to create a comprehensive and functional prescription for housing hunger. Importantly, the classical modernists included communal space in their designs for the housing series. Although the postulates of modernist housing were used as early as the interwar period, they found much wider practical application during the reconstruction of European cities after World War II, in accordance with the "principles of the movement to a social housing scheme" (Rowe 2011).

In Western Europe, however, the project of standardized construction met with criticism and was relatively quickly displaced by forms of dispersed housing, which was associated with liberal individualism and the ideology of economic growth, and led to suburbanization processes. The concepts contained in the *Athens Charter* were much easier to implement in the conditions of real socialism, particularly in connection with the principles of a planned economy, which guaranteed low-cost housing construction and the relatively rapid transformation of social relations originally associated with the bourgeois city. Socialism assumed that settlements built in this way would not only have existential significance but would be a platform for the construction of social relations appropriate for the new system (see, for example, Komar 2014: 34; Stankiewicz, Walkowiak 1987).

Implementation of the idea of building modernistic housing estates was facilitated by the use of large-panel technology based on the construction of multi-flat and multi-story blocks of flats from semi-finished products. The blocks were erected in groups, usually in rows or in free composition. The spread of distinctive unified apartment blocks in CEE countries dates to the 1960s, 1970s, and 1980s (cf. Navarro, Sobecka 2019), with the highest intensity in the 1970s. Thus, Corbusier's urbanist assumptions of mass housing

perfectly responded to the ideological demands of real socialism according to the principle of "a decent minimum for the maximum population" (Ziółkowski 1964, 1965: 53).

The specificity and legacy of prefabricated housing in Poland are inseparably connected with the idea of cooperative housing. Cooperative construction already existed in Poland as early as the end of the nineteenth century. After World War II, housing cooperatives became an alternative to simple nationalization (Cesarski 2011: 25–28). At the beginning of the 1960s, the Act on Spatial Planning (Journal of Laws 1961, no. 7, item 47) came into force in Poland. Numerous norms related to the design of housing estates were also introduced (more: Nowakowski 2013: 80–99). The cooperative form of ownership and management of housing infrastructure created the basis for the creation of large entities to manage the newly created infrastructure. The cooperative housing stock was mainly located in cities and amounted to a maximum of 42% of the urban housing stock. Currently, as a result of the growth of other types of housing, this percentage is steadily decreasing—but this does not change the fact that in 2010 it still accounted for 29% of the urban housing stock. In 2020 this share dropped to 22% (GUS 2021).

The economy of housing cooperatives was included in successive national social and economic plans, which consequently enabled rational spatial planning and securing land for investments, state participation in financing infrastructure, securing allotments of raw constructing materials, introducing cheap housing for the economically weaker social groups, and increasing the availability of credit (Drozd-Jaśniewicz 2011: 62). Problems included the small size of apartments or the lengthening—in the late 1970s to as much as 15–20 years—of the waiting time for an apartment.

After 1989, ownership transformations took place. In particular, the aim was to minimize the influence of the state on the activities of cooperatives and to liquidate their central management, as regulated by the Act of 20th January 1990 on Changes in the Organization and Activities of Cooperatives (Journal of Laws 1990, no. 6, item 36). In turn, the Act of 7th July 1994 Amending the Cooperative Law and Certain Other Acts (Journal of Laws 1994, no. 90, item 419) recognized cooperative assets as the private property of a given cooperative's members, with the result that cooperatives—including housing cooperatives—were classified as belonging to the private property sector. In turn, the Act of 24th June 1994 on Ownership of Premises (Journal of Laws 1994, no. 85, item 388) restored the possibility of managing multi-family buildings not only to housing cooperatives, but also to housing communities; it privatized housing, and at the same time formalized the self-organization of residents. Finally, the Act of October 26, 1995 on Certain Forms of Supporting Residential Construction resulted in the discontinuation of public assistance to housing cooperatives (Journal of Laws 1995, no. 133, item 654).

Despite these profound changes, cooperatives remained a significant developing form of home ownership in the first decade of the twenty-first century (Cesarski 2011: 32). At that time, the legislation on housing cooperatives was subject to successive amendments. These, for example, created the possibility for individuals to purchase cooperative apartments for ownership (often through a mortgage), and consequently to purchase and sell such apartments without membership in a co-operative—this was regulated by the Act of 14th June 2007 Amending the Act on Housing Cooperatives and Certain Other Acts (Journal of Laws 2007 No. 125 item 873).

The institutional solutions described above, including legal and administrative ones, have at the same time facilitated modernization activities: removal of asbestos, care of façades, the thermal modernization of buildings, revitalization of green areas in the immediate vicinity of apartment blocks, and care of common spaces such as housing-estate parks. This, in turn, has contributed to the fact that apartment blocks in Poland, despite their already long history, retain their vitality and are different from at least some apartment blocks in other post-socialist countries, such as the Balkans (Nowak, Siatkowski 2021b).

As Bohdan Jałowiecki stated, "the aesthetics of the city, on which two generations of Poles were raised, is the aesthetics of housing estates, anonymous houses deprived of social meaning and individual expression" (Jałowiecki 1991: 10). Even if Jałowiecki's judgment is a bit harsh, the radical simplicity of the real-socialist urban form and the "brutalist" attitude to scale resulting from systemic restrictions (Kornai 1980), as well as the consequent possible anonymity, were undoubtedly a new element of the cultural landscape (Smagacz-Poziemska 2017).

However, to complete the picture, it should be emphasized that in accordance with modernist assumptions, the housing estates were planned to have social, educational, cultural, commercial, and health care facilities. Thus, to some extent, the estates performed specific functions, including socialization. Usually, however, the estates were built later than the housing blocks themselves (see, for example, Komar 2014: 34; cf. Stankiewicz, Walkowiak 1987). Technical deficiencies were a feature of "socialist modernism" rather than an exception. They paradoxically triggered the need to expand "weak ties" between very socially disparate people. They were further reinforced by the conditions of the scarcity state and the conditions of chronic crisis in the second half of the 1980s. Thus, cooperation was clearly contextual (concerning the scope of mutually provided services) and neighborly relations remained distanced rather than intimate. Nevertheless, cooperation provided a basis for coexistence and brought about what has been termed *invisible ties*.

Moreover, contrary to the assumptions of modernism, communal spaces (agora), where closer neighborly relations could be built (see e.g., Komar 2014: 34) and "community potential" could be activated more effectively, were not created on housing estates. With such infrastructural baggage, blocks of flats continue to function up until now. A hypothetical explanation can be risked: the construction of the agora was not on the socialist government's mind, as it would have facilitated social self-organization outside the mechanisms of institutional state control.

The aforementioned urban and social processes also made it possible to maintain the attractiveness of mass housing in the post-transformation period, when estates similar in form, but much denser, with higher standards, and, above all, more expensive and burdened with long-term loans, delivered by profit-oriented entrepreneurs, began to appear on a mass scale.

Results of Empirical Research

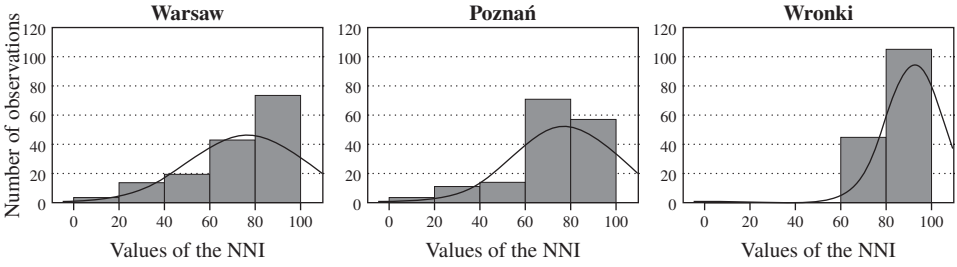
As a first step, the strength of the relationship between the NNI and sense of attachment to the near and distant neighborhood was examined. A very strong positive correlation

was found between the NNI and the sense of neighborhood attachment ($\tau = 0.658$), while a slightly weaker positive correlation was found for city size ($\tau = 0.503$). These results support the conceptualization outlined above assuming the graded and concentric nature of neighborhood relationships in LSBF.

To answer the second research question, the strength of the relationship between the value of the NNI and the respondent's gender (V-Cramer = 0.157), age (categorized variable, $\tau = 0.267$), having offspring (V-Cramer = 0.197), need for contact (V-Cramer = 0.379), type of residence (V-Cramer = 0.115), and size of place of residence (V-Cramer = 0.331) was examined. As a result of the calculations, it was shown that residents of towns with <20,000 inhabitants assess their attachment to the building in which they live relatively higher, and this relationship is more strongly influenced by the respondents' need for neighborhood contacts. The distribution of the values of the NNI and the distribution of respondents by place of residence are presented as histograms (Fig. 2). The comparison shows that the distribution of answers significantly differs in a small town. In Wronki, the median response was 100, and the lowest score was 37.5, while in Warsaw and Poznań the median response was 75. There were also declarations of a lack of a sense of connection with the nearest neighborhood, with respondents from Warsaw providing relatively the greatest number of ratings with low values for this variable. These results confirmed the intuition outlined in the conceptualization that LSBF neighborhood relations depend on the size of the localities in which they are built. Further detailed analyses to answer the third research question were conducted taking into account the place of residence of the respondents.

Fig. 2

Distribution of the Near-Neighborhood Index (NNI) values of respondents according to their place of residence



First, the distribution of responses regarding infrastructure was examined. This questionnaire was completed by the interviewers themselves based on their own observations of the place where the first survey was conducted. The type of building in which the respondent lived was shown to have a relatively weaker effect on the respondent's perception of the neighborhood ($\tau = 0.170$) than the size of the residence itself ($\tau = -0.281$). Respondents lived in a building without an alarm (96% of respondents), with an intercom (91%), without motion sensor lights (93%), without access restrictions to the building (96%), and without "bad dog" signs. However, there are some differences in terms of security: bars in windows were present in the residences of 34% of respondents in Warsaw, while in Poz-

nan and Wronki <1%. Buildings had monitoring in the case of 17% of respondents from Warsaw, whereas in Poznan, the percentage was just over 5%, and in Wronki <1%.

The condition of buildings in all locations was at least good and in at least comparable condition to buildings in the surrounding area. The material status of most respondents in each locality was, at least, average. High ratings were also ascribed to the cleanliness of the buildings inhabited: 88% of buildings inhabited by respondents from Warsaw were considered clean or very clean. In Poznań and Wronki, that percentage was 91 and 93% respectively. In Warsaw, however, in 38% of the buildings where the respondents lived, no traces of special care by the residents were noted (e.g., planted greenery, flowers, etc.). However, in Poznan and Wronki such clear indications did not occur.

Ultimately, it can be said that regardless of the size of the study's locality, LSBFs are similar in terms of infrastructure. The only factors that can be said to be different are those over which residents could exert an individual influence, such as the presence of bars on windows or greenery in the common space. In both cases, the Warsaw LSBF differed significantly from those in Poznań and Wronki.

These observations were also confirmed by the results of the survey conducted among LSBF residents. Their buildings differed primarily in terms of: (1) the degree of wall coverage, for instance, graffiti on the staircase, (in Warsaw, 92% of the respondents said the walls were very clean, in Poznan 47%, and in Wronki only 36%); (2) the presence on the staircase of traces of personalization of the place by the residents, for example, flowers, ornaments, curtains in the windows (in Warsaw, 69% "definitely no" and 3% "definitely yes," in Poznan, no answer for "definitely no," but 37% definitely "yes," in Wronki, no answer for "definitely no" and 10% definitely "yes") and (3) the presence of a "common space" in front of the building where the residents can meet (e.g., benches, a green area, a playground; in Warsaw, 43% of positive answers were obtained, in Poznan, 96% of such answers and in Wronki 94%).

The interpretation of these results is partially obvious, but disproportions in investment resources in particular cities can be indicated. Thus, the question is not about the intensity of personalization of places, but rather about the determination to restore the original shape of common spaces.

An analysis was also made of the strength of the relationship between variables describing behaviors requiring active building of interpersonal relations and the NNI. These relate to various aspects of the assessment of neighborly relations: in particular, the respondents' answers concerning their assessment of residents' care for the building's surroundings, a good neighborly atmosphere, the maintenance of closer relations with neighbors, mutual help, as well as children's play conditions were examined using the τ—Kendall's coefficient.

The strongest correlation between the NNI and the overall neighborhood rating was noted in the areas of friendly neighborhood atmosphere ($\tau = 0.38$), mutual aid between neighbors ($\tau = 0.37$), and conditions for meeting neighbors ($\tau = 0.37$), with the weakest correlation regarding children's playground areas ($\tau = 0.20$). It should be noted that Warsaw residents' ratings of their neighborhood in each of the areas surveyed were relatively lower than those of Poznań or Wronki residents. Moreover, they were also less related or even unrelated to the NNI. Once again, there is a difference based on the size of the

Table 1

Analyses of the strength of the association between variables describing behaviors requiring active interpersonal relationship building and the Near-Neighborhood Index (NNI)

Respondents' neighbourhood assessment in relation to:	City	$\overline{X}$	N	Q_1	Me	Q_3	correlation with the NNI τ	
Residents' care for the building's surroundings	Warsaw	74.00	150	50	75	100	0.08	
	Poznań	78.64	151	75	75	100	**0.48**	**0.32**
	Wronki	87.92	149	75	100	100	**0.37**	
Friendly neighbourhood atmosphere	Warsaw	75.50	150	50	75	100	**0.22**	
	Poznań	77.98	151	75	75	100	**0.36**	**0.38**
	Wronki	86.83	150	75	75	100	**0.50**	
Maintaining closer contact with neighbours (e.g. participation in joint celebrations)	Warsaw	46.81	149	25	50	75	**0.13**	
	Poznań	64.57	151	50	75	75	**0.34**	**0.36**
	Wronki	83.00	150	75	75	100	**0.46**	
Mutual neighbours' help	Warsaw	64.36	148	50	75	75	**0.16**	
	Poznań	76.34	149	75	75	100	**0.39**	**0.37**
	Wronki	87.75	149	75	100	100	**0.47**	
Conditions for neighbours' meetings	Warsaw	44.00	150	25	50	50	**0.17**	
	Poznań	68.00	150	50	75	75	**0.37**	**0.37**
	Wronki	83.61	148	75	75	100	**0.48**	
Playing conditions for children	Warsaw	56.83	150	50	50	75	0.01	
	Poznań	83.39	149	75	75	100	**0.32**	**0.20**
	Wronki	83.05	149	75	75	100	**0.28**	

Source: Own elaboration based on statistical material. Red colour indicates statistically significant correlations.

city. Small towns are characterized by a higher stability of residence, which most likely entails a higher "community potential," thus implying certain identity and "neighborhood-building" consequences.

Given the weaker correlation between the NNI in Warsaw and direct ratings of the neighborhood in the aforementioned areas, the impact of factors affecting the value of the NNI was examined. The factors included the number of friendly neighbors and the level of relations with them, the need for maintaining contact and the respondents' ratings of the factors that foster and hinder the development of neighborly relations. The values of correlation coefficients of these variables with the value of the NNI are presented in Table A1 (appendix). The analysis showed a relatively strong correlation of these variables only with respect to the number of neighbors and the internal need for contact. A significant positive correlation was also found between the sense of attachment to the place and having neighbors who know each other's name and occupation, visit each other on name days, visit each other often, do each other small favors, and provide mutual assistance. The perception of neighborhood, on the other hand, is negatively affected primarily by nosy, gossiping neighbors who often draw attention to other residents. The sense of connection with the place is also inversely proportional to the number of renovations conducted, noisy neighbors, police intervention, the playing of loud music, loud children, and the littering of the staircase. Surprisingly, factors such as having children, having a dog, the existence of playgrounds, the presence of an elevator in the building, or the condition of the staircase do not affect the level of neighborly relations. The greater consistency of statements in this

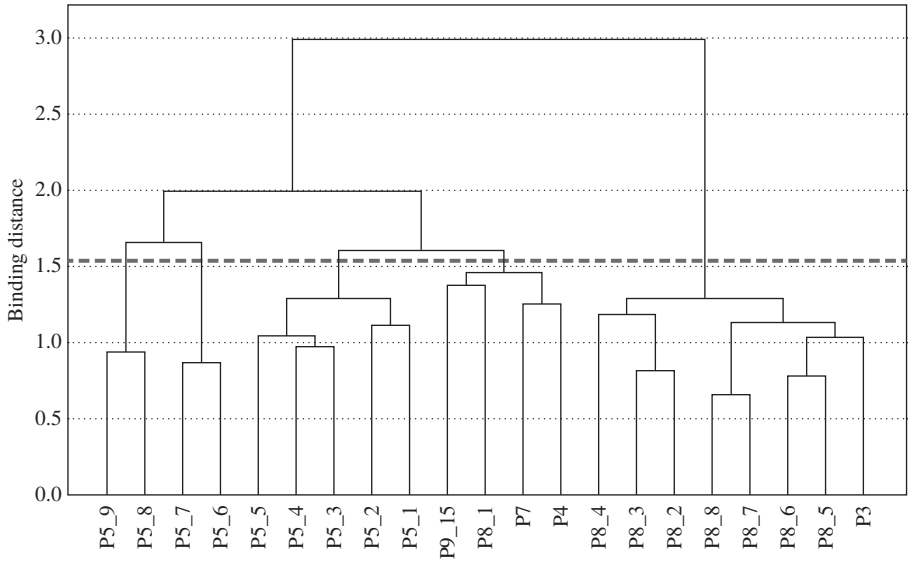
area with the declared value of the NNI among Poznań respondents should also be noted. A more frequent, non-significant relationship is found when analyzing the statements of the residents of blocks of flats in Warsaw.

These detailed results prompted the search for groups of factors supporting, to a varying degree, neighborhood relations in individual cities. For this purpose, the cluster analysis method was used. The full names of the variables being the basis for the grouping are presented in Table 2. They are presented as a dendrite (Fig. 3). The complete list of the variables that make up these groups appears in the first column of Table 2. The following columns of this table contain the average τ—Kendall's correlation coefficients with the NNI.

In Group I, the factors supporting the building of neighborly relations, which are strongly relational in nature, were clearly visible. Their characteristic feature is cooperation between neighbors, based primarily on neighborly self-help, which leads to closer ties. This is the only context in the survey in which the level of invisible ties was more clearly marked. In the areas declared by the respondents (e.g., signing petitions, providing small favors for each other, taking care of children and/or animals), the desire to build stronger ties is marked. It can be suggested that a type of relationship is denoted that tends toward a classic neighborhood community. Of course, this "community" is highly contextual (responds to specific needs), that is, it is related to a certain range of practices whose intensity determines the unambiguity of the social form. Answers to questions belonging to this group turned out to be positively (though weakly) correlated with the NNI.

Fig. 3

Dendrite showing the results of grouping respondents' ratings of variables that support neighbourhood relationship building



In Group II and Group III there were quite heterogeneous questions combining the infrastructural aspect with the relational aspect but perceived through the potentiality of the

relationship rather than the intimacy, which suggests the form of invisible ties discussed in this article. Responses to questions in Group II were correlated with the NNI only in the case of respondents from Poznań and Wronki. The relations were similar in the case of Group III, but slightly weaker.

The last two groups (Group IV and Group V) are interesting in terms of the indicated potentiality relating to the specific needs of the inhabitants. This is especially true of Group V, where connections are based on raising children and caring for pets. The condition of the latter group of residents is characterized by specific spatial practices related to much more intensive use of the recreational infrastructure of the neighborhoods, which may or may not imply deeper social relations. Social relations should be treated both as an opportunity for social interaction and for building strong ties, but on the other hand, as a threat to the integrity or autonomy of the individual. It is interesting to note that the answers to the questions in both groups turned out not to be correlated with the values of the NNI. The exception here is Poznań, with the factors forming Group IV.

Table 2

Average τ—correlation coefficients between the respondents' ratings and the NNI for selected groups of factors supporting the building of neighborhood relations

Groups of factors that support the building of neighbourhood relationships	Kendall's Tau correlation coefficients with the NNI			
	Warsaw	Poznań	Wronki	Total
Group I How many neighbours do you have who are your friends? (P3); I know their name (P8_2); I know what their occupation is, what they do (P8_3); If there is a need for joint action (e.g. signing a petition), I can count on their engagement (P8_4); We do small favours for each other, e.g. picking up packages, borrowing groceries (P8_5); We help each other out, e.g. taking care of the kids, taking care of pets, watching the house while we are away (P8_6); We visit each other on name days, family celebrations, etc. (P8_7); We often go to each other's houses for family events, etc. (P8_8); We often visit each other (P8_8);	**0.21** **(0.08)**	**0.28** **(0.10)**	**0.13** **(0.05)**	**0.28** **(0.05)**
Group II Friendly space in the neighbourhood, e.g. playgrounds, green areas, etc. (P5_1); Meeting space in the building, e.g., dryer, common room, lobby (P5_2); Shared interests (P5_3); Similar age (P5_4); Long acquaintance of people (P5_5);	–0.05 (0.04)	0.22 (0.03)	0.17 (0.05)	0.11 (0.04)
Group III Are there any neighbourhood initiatives organized in your area, such as meetings, joint events, festivals? (P4); Do you think it is necessary to maintain contact with your neighbours? (P7); When we meet, we say "good morning" but nothing more (P8_1); Nothing annoys me about the behaviour of my neighbours (P5_15);	0.04 (0.15)	0.17 (0.18)	**0.16** **(0.06)**	0.15 (0.11)
Group IV Having children (P5_6); Having a dog (P5_7);	0.00 (0.04)	**0.20** **(0.03)**	**0.06** **(0.02)**	**0.09** **(0.00)**
Group V Elevator in the building (P5_8); Condition of the staircase (P5_9);	**0.04** **(0.03)**	**0.07** **(0.00)**	**–0.09** **(0.01)**	**0.01** **(0.01)**

Source: calculations and own elaboration. Standard deviations in the group are given in parentheses.

In summary, the indicated distinctions highlight the interactional opportunities/weaknesses of mass residence (the presence of social control, the need to share space, the absence

of opportunities for seclusion, etc.). In a sense, the evaluations and opinions of the respondents indirectly indicate coping strategies to deal with social entrapment, or the feeling of "agoraphobia." In the selected variant, this involves people, or symbols that indicate the presence of other people.

Conclusions

This article points to the durability of LSBF constructivist modernism in Poland. As indicated by the historical analysis above, it would be incorrect to speak of the decline of LSBF, which after three decades of transformation retain their vitality and still constitute, with their specificity, a relatively attractive alternative to other forms of development, such as housing estates with single-family houses. They also retain their vitality in the infrastructural context, which in turn is indicated by the specificity of their planning, taking into account their distances and open spaces, which are unattainable today. Neighborhood relations appear to be, at least, as important. It has been shown, in close accord with research intuitions, that the main factors differentiating social relations in LSBF are not only the infrastructure itself or a specific identity, but the size of the city. While the architectural and urban form of LSBF is significant, it is difficult in this case to speak of simple determinism from the type of development itself.

Respondents in all locations declared the strongest bonds with their closest neighbors. The neighborhood ties themselves, which were builded in a small city, large city, and metropolitan capital city, differ from each other in the essence of the relations. While these ties are closer and slightly more clearly characterized by the component of social control in a smaller city, in a large city on the other hand, especially a capital city, the key elements are those related to the right to privacy. The social expectations and, at the same time, the practice of life in LSBF are clearly based on invisible ties. This thesis was also confirmed by a study conducted at a similar time in Warsaw (cf. Dudkiewicz, Lewenstein, Winiarska 2020). Therefore, the distinctive feature of relationships in LSBF is its relationality: the larger the city, the greater the distances and the less often the potential for closer relationships ("community potentials") is activated. One exception to this rule was observed: using cluster analysis, the areas of cooperation declared by the respondents were singled out and emerged to be based primarily on neighborhood self-help. In this aspect, the moment of going beyond invisible ties and activating "community potential" was noticed.

Somewhat surprisingly, as the surveys clearly showed, the factors that determine the building of neighborhood relationships are factors primarily based on relationships with other neighbors. Their comparison with the value of the NNI allows us to conclude that the level of neighborly relations is not affected by such factors as having a child, having a dog, playgrounds, an elevator in the building, or the condition of the staircase. Thus, the spatial context and its condition is not a factor determining the specificity of neighborhood relations. This explains the seemingly paradoxical conclusion that a poor image of space, at the same time burdened with historical handicap, does not necessarily entail its rejection as a place of residence at the level of actual behavior.

At least three types of explanations for the observed peculiarity are possible. The first type, which may be called "supply-side," suggests that in the case of the largest centers there is a higher standard of living and an increasing number of apartments available on the primary market. The legacy of modernist LSBF is treated in this environment as a low-prestige residence, with the reservation that LSBF apartments have not only the status of housing for the less affluent, but also of "first apartments" or "transitional apartments," which is already directly related to the increased spatial mobility typical of large cities and results, at the same time, in weaker pressure to create and maintain bonds.

The second type of argumentation concerns the "level of rootedness": as a factor determining the number of familiar neighbors, the level of intimacy of relations and bonds with the place. Small cities in this respect are clearly different from larger and/or metropolitan cities. Large cities are becoming areas of invisible bonds, which, apart from the functional aspect, are also becoming the *genus loci* of LSBF housing estates.

The third type suggests that the peculiar "neutrality" of LSBF space is essential; thus, it can be observed that the concept of place does not quite show utility for LSBF. The blocks, despite modernizers' efforts, remain essentially undistinguished. Hence social relations are not constructed through the distinction of place. In a sense, the personalization of space—the transforming of space into place—can be seen negatively as undermining the convention of "invisibility" typical of socialist modernism.

What seems important is to see in the proposed perspective—for both urban sociology and social geography—is the classic historicized relationship between spatial conditions and the autonomous social context.

Recommendations for Future Research

The main benefit of discussing LSBF is to see the vitality of modernism in its massed form (Nowak, Siatkowski 2021a). The decades-long fate of this kind of urban form and neighborhood suggests, in opposition to widespread interpretations in urban studies (exemplified by the findings of the RESTATE project), that they adapt relatively well to the conditions of capitalist, neoliberal-managed cities. They are not spaces of first choice or high prestige, but they are nevertheless chosen for their location, relatively good spatial development, availability of services, and attractive purchase and rental prices. In this sense, therefore, the contemporary shortcomings of planning and the inability to effectively regulate spatial policy, which are readily apparent in Central and Eastern Europe, allow us to appreciate what was built 40 or even 60 years ago. This is intriguing, especially given the widespread one-dimensional criticism of real socialism. This alone is an incentive to take a closer look at the phenomenon.

The research perspectives opened by the research presented here could go in at least two directions. The first would be an in-depth comparative analysis that allows verifying the Polish experience of LSBF with the perspectives of other societies in the region. The second would be a broader and deeper study of the "invisible neighborhood," as a potential contained in the forms of mass housing, but also, for example, in regard to the question of what kind of citizens are "produced" by neighborhood relations in LSBF. Such an approach

could be important for understanding the macro structural correlates of neighborhood, as another aspect of the social relations prevalent in contemporary societies.

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Biographical Notes

Przemysław Pluciński, (Ph.D.), Adjunct Professor at the Faculty of Sociology, Adam Mickiewicz University, Poznań. His scientific interest includes sociological theory, social movements and the public sphere, and urban sociology.

ORCID iD: 0000-0002-5102-6572

E-mail: przemyslaw.plucinski@amu.edu.pl

Marek Nowak, (Ph.D.), Professor at the Faculty of Sociology, Adam Mickiewicz University, Poznań. His scientific interest includes economic sociology, sociology of social activism, sociology of the public sphere and urban studies.

ORCID iD: 0000-0003-1749-7669

E-mail: kawon.m@amu.edu.pl

Lucyna Błażejczyk-Majka, (Ph.D.), Professor at the Department of Economic History, Adam Mickiewicz University, Poznań. She is a co-editor of the journal *Studia Hisotriae Oeconomicae*. Her scientific interest includes history of economics, numerical methods in history, econometrics, agricultural economics, and economic efficiency.

ORCID iD: 0000-0002-4439-8351

E-mail: majkal@amu.edu.pl

Appendix

Table A1

Correlation between variables related to number of neighbours, respondents' needs, their opinions in the area of building neighbourhood relationships and the Near-Neighbourhood Index (NNI)

	Variables	τ—correlation coefficients of variables with the NNI			
		Warsaw	Poznań	Wronki	Total
	Number of neighbours	**0.336**	**0.426**	**0.188**	**0.387**
	Need to maintain contact with neighbours	0.105	**0.318**	**0.109**	**0.206**
	Neighbourhood initiatives organized in the area	**0.184**	**–0.308**	**–0.146**	**–0.269**
What fosters neighbourhood relationships	Friendly neighbourhood space (e.g., playgrounds, green spaces, etc.)	–0.046	**0.170**	**0.125**	0.033
	Meeting space in the building (e.g., drying room, community room, lobby)	–0.033	**0.206**	0.101	**0.102**
	Shared interests	–0.073	**0.229**	**0.229**	**0.127**
	Approximate age	**–0.109**	**0.218**	**0.209**	**0.122**
	Long acquaintance with people	–0.003	**0.256**	**0.183**	**0.156**
	Number of children	0.029	**0.175**	0.071	**0.093**
	Dog ownership	–0022	**0.228**	0.039	**0.085**
	Elevator in the building	0.017	0.071	–0.100	0.002
	Condition of the staircase	0.062	0.076	–0.075	0.017
Are there any neighbours about whom you can say:	When we meet we say "good morning" to each other, but nothing more	**–0.161**	**–0.122**	**0.254**	–0.025
	I know their names	**0.252**	**0.255**	0.098	**0.275**
	I know what their jobs are	**0.205**	**0.271**	0.102	**0.261**
	If there is a need for collective action (such as signing a petition), I can count on their commitment	0.108	**0.174**	**0.224**	**0.195**
	We provide each other with small favours (e.g., picking up packages, borrowing groceries)	**0.266**	**0.137**	0.092	**0.255**
	We use each other's help (e.g., babysitting, caring for pets, watching the home while neighbours are away)	**0.239**	**0.383**	0.072	**0.323**
	We stay at each other's houses for name days, family celebrations, etc.	**0.171**	**0.202**	**0.147**	**0.271**
	We often visit each other	**0.130**	**0.370**	**0.150**	**0.299**
	There are constant arguments with them	0.014	**–0.123**	–0.070	–0.069
	I find their manners annoying	–0.033	**–0.246**	–0.007	**–0.114**
List of possible complaints that residents may have while relating with their neighbours	Playing loud music	–0.066	**–0.225**	0.044	**–0.094**
	Screaming, brawling neighbours	–0.079	**–0.213**	0.081	**–0.075**
	Loud behavior by neighbours' children	–0.111	**–0.300**	0.034	**–0.076**
	Loud animal behaviour in the building e.g. barking of a dog	–0.038	**–0.241**	0.002	–0.032
	Moving furniture	–0.093	–0.204	0.037	–0.035
	Loud household appliances (e.g. washing machine, vacuum cleaner)	–0.082	**–0.189**	0.065	–0.004
	Stomping [Walking Loudly]	–0.087	**–0.192**	0.022	–0.028
	Loud conversations of neighbours	**–0.125**	**–0.204**	–0.019	**–0.088**
	Smoking	–0.065	**–0.130**	0.101	–0.056
	Littering in the staircase	–0.098	**–0.192**	0.056	**–0.092**
	Frequent renovations	–0.029	**–0.229**	0.035	**–0.073**
	Disruptive, often attention-seeking neighbours	–0.091	**–0.269**	–0.004	**–0.118**
	Calling the police	–0.057	**–0.219**	–0.001	–0.060
	Gossiping and nosy neighbours	–0.161	**–0.141**	–0.042	**–0.126**
	Nothing annoys me about my neighbours' behaviour	0.015	**0.186**	**0.111**	**0.136**

Source: own calculation.

Table A2

Distribution of the respondents' number according to the type of buildings they occupied

Type of building	Warsaw	Poznań	Wronki	Total
High-rise apartment block (more than 5 floors)	22	11	1	34
Low-rise apartment block (up to 5 floors)	115	137	80	332
Tenement House	11	0	10	21
Terraced house	1	0	0	1
Single-family house	1	0	58	59
Total	150	148	149	447

Source: own calculations.