

**Michał Stangel\***

*Adapting the compact city model  
in planning new areas of medium-sized cities.  
From competition concepts to local development plans,  
on the examples of Tczew and Stargard*

*Abstract*

The article presents the possibilities of concretizing the idea of the compact city for new urban development areas in medium-sized cities in Poland, on the basis of author's experience with winning competition concepts and local development plans developed on their basis. The presented examples are: New Urban Centre in Tczew, on a post-military site, and residential areas in Stargard.

The work presents a reflective examination of one's own design and planning practice. The methodology used is research by design – linking design and research processes in order to obtain new knowledge about a given space. The underlying methodological model assumes a cycle of analysis, design and synthesis. The starting point was an analysis of conditions on the basis of background materials, maps and field observations, which made it possible to specify the key elements for shaping the new structure. Analyses made it possible to concretize design assumptions and develop concepts; the synthesis and verification of which was the development of local plans, in accordance with the possibilities available under the planning technique.

The analysis indicates that the compact city model, key in context of sustainable development, nevertheless requires an individual approach when adapting to local conditions. The presented initiatives from medium-sized cities in Poland offer a number of practical tips, including: the use of competitions to determine the future development vision and the verification of competition assumptions within a wide range of conditions. Planning provisions should take into account the diversity of public spaces, securing green spaces, and promoting sustainable mobility.

In the context of recent amendments to the Polish Law on Spatial Planning (2023), although there is no formal strengthening of urban design in the planning process, there is a growing popularity of the idea of the compact city. Therefore, there is a need to improve methods of shaping urban structure, especially using pre-design studies and during design. The findings presented here can contribute to improving planning practices and effectively implementing the idea of the compact city in locations in medium-sized cities.

**Key words:** compact city, sustainable city, urban design – architectural competition, urban design concept, local planning, SDG11

*Introduction*

In the context of sustainable development challenges and climate change, urban planning plays a crucial role in minimizing environmental burdens, energy consumption, and greenhouse gas emissions. An appropriately structured urban fabric can enable and promote the fulfilment of residents' diverse life needs within eco-friendly, economical lifestyles. It is widely believed that it is in cities and good

urban planning that the challenges of the modern world can find common environmental, social and economic solutions [1], [2]. To paraphrase a phrase attributed to Winston Churchill: "We shape our cities, and thereafter they shape us".

It is now widely accepted that in the context of the challenges of sustainable development and energy-climate transition, the appropriate structure is the compact city, also known as the city of short roads or the 15-minute city. The city is designed to be compact, with a focus on mixing urban functions and creating public spaces that prioritize convenient pedestrian and bicycle access to public trans-

\* ORCID: 0000-0001-8728-2888. Faculty of Architecture, Silesian University of Technology, Poland, e-mail: [michal.stangel@polsl.pl](mailto:michal.stangel@polsl.pl)

portation. While shaping a compact city may seem like a simple idea, the true essence of urban planning and design lies in its implementation. This involves translating general principles and guidelines into local conditions and opportunities, which requires careful analysis and decision-making throughout the planning process [3].

The subject of this article is a reflective examination of the author's design and planning experience on the concretization of the idea of a compact city in areas of new urbanization in medium-sized cities – Tczew and Stargard. The author's award-winning competition entries were subsequently translated into the provisions of local development plans. The analysis uses research by design methodology to explore the relationship between design and research processes in order to gain new knowledge about a given space. The conclusions drawn from these cases demonstrate the potential and limitations of implementing the compact city concept in relation to local conditions and available planning instruments. This allows for the identification of components that can serve as guidelines for similar topics.

### ***The compact, sustainable, 15-minute city and the importance of public space***

The model of the compact city is a structure where everything residents need for life is within close distance: workplaces, schools, preschools, shops, cafes, clinics, sports facilities, green areas, etc. Such an organization of space reduces the need for travel, allowing for primarily pedestrian or bicycle movement. An important element of the compact city structure is also the formation of local service centres, integrated with public transport stops and interchange nodes [4]. Recently, this well-known urban planning concept has been popularized under the name of the 15-minute city. It highlights the synergistic and multiplicative effects and the positive feedback operating within the compact urban structure, resulting in lower energy consumption and time needed for transport, stimulation of social contacts, and increased use of local services, ultimately benefiting the local economic base [5], [6].

The compact city idea is widely expressed in strategic documents and policies, e.g., in the UN's Sustainable Development Goal SDG-11 [7] or the European Union's Urban Agenda [8]. In Poland, the compact city idea is promoted in the National Urban Policy [9] and the guidelines and recommendations of the Department of Spatial Planning of the Ministry of Development and Technology [10]. The idea is also fostered through several other initiatives, such as the strategic research project "New Urbanization Model in Poland – Practical Implementation of Responsible Urbanization and Compact City Principles (NewUrbPact)" [11] or the Ministry of Development and Technology's competition for outstanding achievements in the fields of architecture, construction and planning, which in the latest editions specifically called for "concepts of urban space implementing the idea of the compact city" [12].

In 2023, the amendment of the Act on Planning and Spatial Development was implemented to rationalize spatial development in Poland. The goal was to limit urban sprawl and align with the compact city idea [13]. Nonethe-

less, the experiences of Polish cities in recent decades show that shaping a coherent urban structure in the contemporary realities of construction processes, especially in small and medium-sized cities, is not common – instead of a coherent structure, often a chaotic, detached development emerges, not creating urban space.

The essence of the compact city idea is that the intensification of development should simultaneously allow for the shaping of public space structure. This structure consists of interconnected streets, pedestrian paths, squares, and green areas, understood not only as recreation areas but as a blue-green infrastructure system beneficially affecting the climate, rainwater retention, and generally the natural system of the city. Analyses of public space focus largely on the existing urban structure and the quality of development provided by appropriate landscape architecture. In existing structures, public space is commonly formed by universally accessible arrangements, both urban in nature, shaped by architectural objects around streets or squares, and areas of special landscape, cultural, or natural values that are not urban interiors. These areas function daily as the basic canvas of movement zones, constituting the living space of the city's residents.

Shaping a legible structure of public spaces is particularly challenging in the formation of new urban complexes. Properly organized and utilized public space can be the canvas of the emerging urban structure and a significant element in building the future quality of life for residents. A clearly structured street network can simultaneously serve as a mobility space, a crystallizing element of the built environment, and a sequence of local social spaces [14]. A key element important for the composition of public spaces is the formation of the interface between the buildings and public space – active frontages. The geometric and functional parameters of frontages – the clear closure of space, the provision of openings of services on the first floors and human-scale design – can be crucial for future beneficial spatial, social or economic effects. The examples described aimed at an optimal concretization of the idea of the compact city in the given contexts of Polish medium-sized cities – firstly, by shaping the concepts of legible urban structures; and secondly, by translating key elements of this concepts into the provisions of local development plans, within the planning instruments available in the Polish spatial planning system.

### ***Research by design methods***

The paper utilizes research by design methods, which involves linking design and research to create new knowledge about a given space [15]–[17]. The methodological model of research by design in architecture and urban planning consists of a cycle of analysis, design, and synthesis [18]. The author's studies successfully concretized the idea of shaping a compact city based on the specific conditions and potential of the location.

The starting point was the analysis of the competition regulations and existing planning documents, which, however, provided little direction for optimal conceptual solutions. The analysis of the site based on maps and, above

all, on the conclusions of local inspections, made it possible to specify the key elements to be taken into account in shaping the structure of public spaces: existing and potential external communication links, dirt and internal roads that could form the nucleus of the communication system, existing trees, reservoirs and depressions in the area that could be places of natural rainwater retention, elements of neighbouring development to which the new structure could relate, as well as nearby landmarks.

The analyses made it possible to concretize the author's design assumptions, and then to draw up working versions of the concept, in which the structure of public spaces was supplemented and proposals were formulated for the shaping of key elements of the new development: amenities frontages, landmarks and spatial accents, as well as instructions regarding the functions of buildings, primarily amenities, so important from the point of view of a compact city. The shaping of green areas in relation to existing tree canopies, landforms and basins and water reservoirs made it possible to create a system of ecological links that will simultaneously be beneficial for rainwater retention [19]. In both cases, the validity of the authors' conclusions drawn from the analyses and adopted design assumptions was confirmed by receiving the first places in the competitions.

The conceptual solutions were later verified and synthesized in the process of elaborating the local spatial development plans on their basis, in accordance with the possibilities available under the planning techniques provided by Polish law [20]. In line with the scope of the draft local plan, the concept of the structure of public spaces was translated into areas of: roads (streets), pedestrian routes, public squares and green areas, with additional designation of pedestrian links within residential areas. Mandatory building lines and additional designations and provisions for the formation of frontages were set for the development areas.

In the first of the described cases, Tczew, the realization to date of the development of about a quarter of the site allowed a preliminary evaluation of the translation of the provisions of the local plan into the emerging build environment.

### ***New Service Centre on post-military area, Tczew***

#### *Subject of the competition and the development plan, as well as baseline conditions*

The subject of the concept and plan was to determine the principles of transforming a post-military site with an area of 18.6 ha to new urban functions. In 2011, the unit of the 16<sup>th</sup> Tczew Sapper Battalion was decommissioned, and the area was excluded from the closed areas of the Ministry of National Defence and transferred to the ownership of the Municipality of Tczew. The area is located at the intersection of the city's two main transportation routes, i.e., Solidarności Avenue and Wojska Polskiego Street, leading from the historic centre of the city to the A1 highway. The site lies about 700 m from the railway station with a transfer centre, and about 1 km from the historic centre by the Vistula River. According to the competition guidelines,

this attractive location was the main premise for the realization of a multifunctional urban development.

In the 2013 study of Tczew's spatial development conditions and directions, the area, formerly a closed military area [21], was designated as a development area for the New Service Centre, classified as one of the city's four prestige sites, with a recommendation to combine the functions of general urban and supra-local services, residential and commercial [22]. In order to find the optimal way to use this area, the city organized a study urban-architectural competition for the development of the "New Service Centre". The organizers' goal was described as to select the best solution to create a contemporary, attractive urban space and strengthen Tczew's role and image in the region [23].

#### *Research by design in elaborating the competition entry*

Although the regulations assumed the creation of a new multifunctional district, integrated into the existing structure of the city, no specific spatial guidelines were included, and the analysis of conditions and the resulting decisions were left to the competition participants. In the competition work (by M. Stangel, M. Ulfik) [24], the assumption was made that the New Service Centre should be a complete, mixed-use urban district, and in accordance with the idea of a compact city, the built form should be based on a system of attractive public spaces, integrated with the surroundings. The basis for shaping the spatial structure was the acknowledgement of existing premises: a military avenue, paths and existing trees, planted along fences and roads, and self-sown trees in loose groups. Although the vegetation cover and habitat had been heavily transformed as a result of the military's use of the site and the unit's decommissioning work, it was assumed that all trees matter, and should be incorporated in the creation of a sequence of public spaces – squares, streets, squares, pedestrian routes and designated green areas (Fig. 1).

A detailed analysis of the site made it possible to determine connections with the surroundings and to propose a canvass of public space, which consisted of: Saperów Street, in the course of the former barracks alley, shaped with the use of rows of trees; the square behind the existing barracks building, composed with the use of the existing valuable tree stand; two squares in the place of the existing valuable groups of greenery; as well as access streets and pedestrian routes providing links to nearby neighbourhoods and in the direction of the interchange, the Old Town and the boulevard on the Vistula River. It was assumed that such a structure would provide a good basis for developing sustainable mobility.

Three main functional zones have been proposed: amenities functions, located in the northern part of the study area; service and industrial areas – Technology Park – the southern part of the study area; service and residential areas – a band on the eastern side from Saperów Street, next to existing residential buildings. In the northern part, the development layout was subordinated to the principle of shaping public spaces, delineating quarters of buildings of medium height, with point dominants. The share of





Fig. 1. Urban design visualization of the winning competition concept (elaborated by M. Stangel, M. Ulfik)

II. 1. Wizualizacja urbanistyczna zwycięskiej koncepcji konkursowej (oprac. M. Stangel, M. Ulfik)

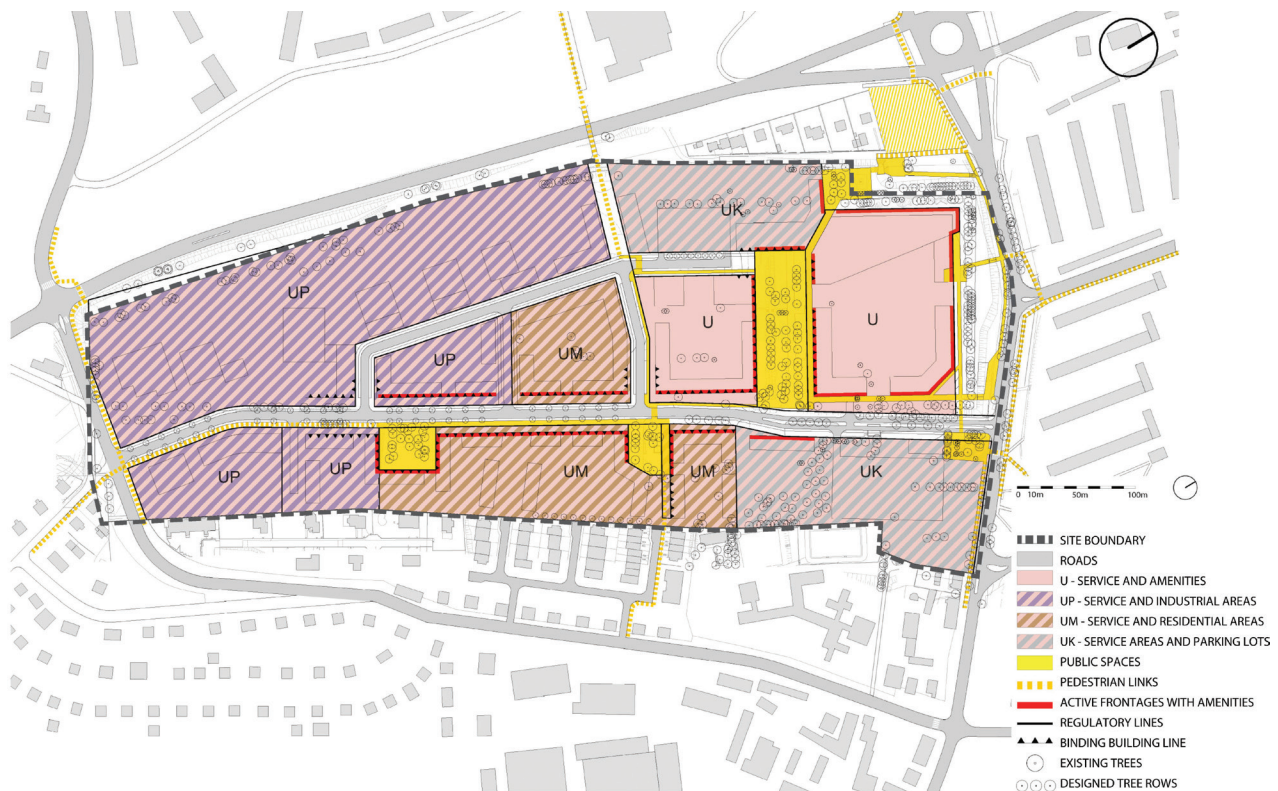


Fig. 2. Schematic of the urban structure proposed in the competition concept (elaborated by M. Stangel, M. Ulfik)

II. 2. Schemat struktury urbanistycznej zaproponowanej w koncepcji konkursowej (oprac. M. Stangel, M. Ulfik)

the residential function is necessary in the New Service Centre to ensure the multifunctionality and activity at different times of the day of the complete district. Quarters of compact urban development have been proposed: on the upper floors – apartments; in the first floors along the street – centralizing services. This structure should reduce traffic needs, ensuring that needs can be met locally. The fragmentation of the frontage blocks was aimed at creating

a compact urban fabric, which is a contemporary interpretation of the historic fabric such as the downtown of Tczew. A detailed analysis of the site's edges allowed establishing several links to the neighbouring structure: paths, continuous green spaces and building forms.

The competition work included a synthesis of the proposal in the form of a diagram of the structure of public spaces and key development frontages (Fig. 2). Based on





Fig. 3. Sketches of possible development scenarios based on the proposed urban structure (elaborated by M. Stangel)

Il. 3. Szkice możliwych scenariuszy zabudowy na bazie zaproponowanej struktury urbanistycznej (oprac. M. Stangel)

this structure, several possible scenarios for the development of future development were also sketched, with the assumption that within different future conditions and market forces, several forms and functions of individual buildings would be possible, but any scenario could maintain shaping the main public spaces to ensure the quality of urban space (Fig. 3).

*Post-competition concept  
and local development plan regulations*

The presented concept was awarded the first prize as the one that best meets the objectives of the competition; primarily for shaping the urban structure with sensitivity to the existing qualities of the area and the neighbourhood to



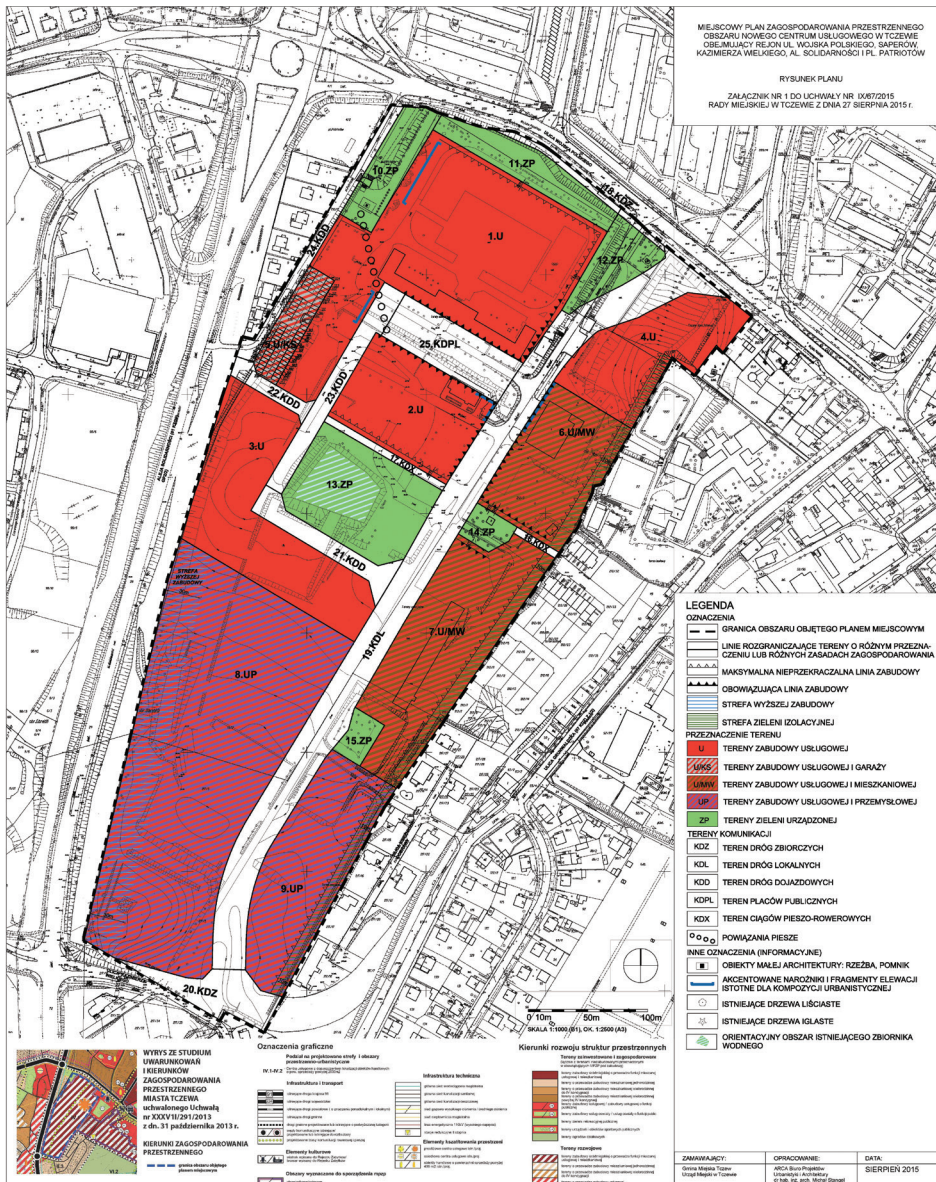


Fig. 4. Drawing of the enacted local development plan (elaborated by M. Stangel)

Il. 4. Rysunek uchwalonego mpzp (oprac. M. Stangel)

a much greater extent than the other works, which proposed mainly architectural solutions (those works be easily found in the Internet). With the award, the jury formulated guidelines for further development regarding, and suggested:

- elaborating in-depth analyses of the existing and designed transportation system, including detailing how to shape parking lots and links to the surroundings,
- clarifying pedestrian and bicycle links with the surroundings,
- exposing and elevating the frontage along Solidarity Avenue,
- elaborating a dendrological inventory in order to maximize the protection of valuable tree stands and shape public spaces on their basis,
- preservation of the retention basin,
- verification of technical infrastructure solutions and rainwater retention.

The author was commissioned to elaborate a detailed post-construction concept, followed by a local urban development plan (Fig. 4). As part of the design review, analyses

were commissioned to specialized external companies: transportation and infrastructure study to Biuro Projektów Budownictwa Komunalnego S.A. (BPK), dendrological study to 44sto and ecophysiological study to Proeko. These analyses generally confirmed the design assumptions, but provided guidance for refining elements of the elaboration. The provisions of the local plan [25] generally maintained the directions derived from the concept, while the following adjustments were made as a result of industry verification:

- preservation of the retention basin and the formation of green areas around it,
- expanding some green areas so as to achieve continuous ecological links,
- refinement of the boundaries of communication areas for optimal formation of external links and consideration of earthworks and technical infrastructure in road lanes.

Some examples of the textual provisions formulated in the local development plan are as follows:

1) In the northern part of the plan area in the areas of 1.U, 2.U, 3.U, 4.U, 6.U/MW it is required to shape



Fig. 5. Drone photograph of the New Barracks development completed according to the plan (August 2021).

Visible in the foreground are the existing trees that were incorporated within the planned green space zone (elaborated by M. Stangel)

Il. 5. Fotografia z drona (sierpień 2021) zrealizowanej zgodnie z planem zabudowy w ramach inwestycji Nowe Koszary. Na pierwszym planie zachowane zadrzewienia w ramach planowanego terenu zieleni (oprac. M. Stangel)



*the development of buildings frontages with the character of compact urban development;*

2) *Fragments of facades important for the urban composition, marked on the drawing of the plan in the areas of 1.U, 2.U, 3.U, 6U/MW require detailed architectural development, taking into account the use of high-quality materials and entrances to amenities from the ground level;*

3) *Along the frontages exposed in the areas of 1.U and 2.U, on the north and south sides of the square 25.KDPL it is required to make in the first floors of buildings commercial and service display windows on the section of at least half of the elevation of each building from the side of the square in the area 25.KDPL [25, ch. 2, par. 6].*

In 2016 the project received the award of the Minister of Infrastructure and Construction for outstanding achievements in the field of planning and spatial development. It was appreciated for concretizing the compact city idea for the given site, as well as for the comprehensive approach and planning process: from the competition entry, through a refined concept, to the provisions of the planning document.

### *Implementation and realization*

On the basis of the enacted local plan, the city has successively implemented several activities to develop the area within the framework of the New Service Centre strategic project [26]. Land plots divisions have been made in accordance with the concept, road plots have been delineated, the entrance to the area and one street and part of the utilities have been realized. Plots have been systematically sold to investors. As part of the New Barracks development run by Home-4you [27], a complex of six residential buildings has been completed in the eastern part, with green areas, covering about 25% of the area. Building permits have already been issued for more buildings.

The realized buildings are located along the mandatory building line set in the plan along the main avenue, but instead of urban blocks postulated in the concept, free-standing buildings were realized. This seems typical for residential developments in medium-sized cities, as they are much easier to realize within the Polish building law. A few ground-floor spaces for local amenities have been realized, but the planned program of larger amenities and services, as well as public investments envisioned in the concept, such as a business incubator and public space development, have not yet been launched. However, the site remains a strategic municipal project, and the municipality pledges further work in the future.

While the project will have to be evaluated in the future, so far, it seems that an undoubted positive effect of the plan is the preservation of existing trees, and incorporating them within the newly established local squares between the residential buildings (Fig. 5). Also, pedestrian links to the neighbourhood, indicated in the plan, were formed. Given that the remaining plots for public spaces have also been set aside in accordance with the plan, it can be assumed, that despite the investment realities revising the forms of particular buildings, the overall structure of public space called for the plan will be implemented.

### *A new suburban, residential district, Stargard*

*Subject of the competition and the development plan, as well as baseline conditions*

The subject of the concept and plan was to define the development principles for new residential area of about 100 ha in the Giżynek district, in the western part of Stargard. The area in question is mostly undeveloped, agricultural land, with some individual buildings, a neglected



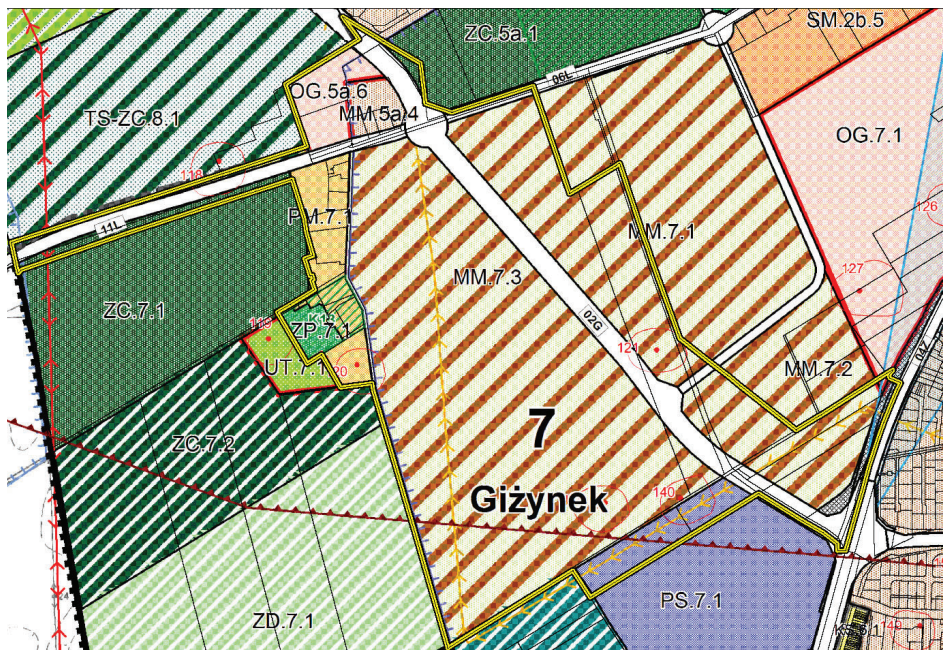


Fig. 6. The study area as a residential land reserve in the 2013 municipal development study (source: [28])

Il. 6. Obszar opracowania jako teren rezerwy terenów mieszkaniowych w studium z 2013 r. (źródło: [28])

palace and allotment gardens. The land was owned by the City of Stargard Szczeciński (now: Stargard), the Agricultural Property Agency, the State Treasury, as well as several companies and individuals.

The municipal zoning study (Fig. 6) [28] generally designated the area as a reserve for urban residential complexes, with a course of a planned bypass road. In order to elaborate detailed assumptions for the development of the area, the SARP Competition No. 955 for the development of a programmatic and spatial concept for the area of the Giżynek Estate in Stargard Szczeciński was conducted on behalf of the city in 2014 [29]. Participants in the competition were to propose an urban-architectural idea of the settlement as a new, attractive, integral part of the city, which would be an alternative to chaotic suburbanization. Similarly to the Tzew competition, the regulations did not include specific spatial guidelines, and the analysis of the conditions and the resulting dispositions were left to the competition participants. The competition was also meant to serve as a basis for elaborating the future development plan, which would protect the area from unplanned, scattered development and propose a rational, harmonious structure of residential development with amenities and public spaces; the gradual and phased implementation of which would meet the needs of future residents.

#### *Research by design in elaborating the competition entry*

The winning competition concept (by M. Stangel, M. Ulfik, F. Piaścik) aimed at researching the possibility of developing the neighbourhood as an integral neighbourhood; a part of the city with a local centre. It was proposed that the canvass of the development of the future new neighbourhood would be the structure of a sequence of public spaces (Fig. 7). The main urban public space would be located in the proposed local centre in the northern part

of the area, with a concentration of multi-family housing and ground-floor services, forming the frontage of a local district “market square”. The square would be linked in the northern direction by a pedestrian route with bus stops, and in the southern direction it would seamlessly transition into a recreational green area. The green space area was shaped to incorporate and preserve the existing tree canopies in the lowered area, which are also important for local retention. Other proposed elements of the public space system include: an avenue formed on the axis between the palace complex and the visible dominant – the church tower in the city centre, streets with rows of trees and service frontages, additional squares and a pedestrian and bicycle route, which in the future would provide a link with the planned Szczecin Metropolitan Railway stop. In the northern part, fringe residential and service development was envisaged, which would gradually transition southward into single-family terraced housing (along the edges of the green spaces) and single-family detached and semi-detached housing. Amenities, including an elementary school, are also envisioned (Fig. 8).

In the justification for the first prize, the jury’s opinion stated that the proposed urban fabric is aptly and rationally based on transportation nodes, including the proposed location of the rail bus stop. The scale of the development, the degree of urbanization of the area matching the scale and nature of the interface between urban and rural areas, as well as the composition of the urban-architectural layout of the public spaces of the local centre, the clear consideration of the existing greenery, the landscaping of the area with surface water and the palace were highly appreciated [29]. Since the competition regulations did not specify the assumed absorptive capacity of the site, the authors, based on their analysis and the assumptions made, most correctly, according to the jury, assumed the intensity of development, allocating nearly half of the site for a green reserve. In contrast, other competition entries proposed intensive





Fig. 7. Schematic of the urban structure proposed in the competition concept (elaborated by M. Stangel, M. Ulfik)

Il. 7. Schemat struktury urbanistycznej zaproponowanej w koncepcji konkursowej (oprac. M. Stangel, M. Ulfik)



Fig. 8. Urban design visualization of the competition concept (elaborated by M. Stangel, M. Ulfik, F. Piascik)

Il. 8. Wizualizacja urbanistyczna koncepcji konkursowej (oprac. M. Stangel, M. Ulfik, F. Piascik)

development of most of the site, and thus a much more modest share of green space [30].

### *Findings of the mpzp*

Based on the results of the competition, a procedure was carried out to amend the study of land use conditions and directions, and then to develop a mpzp. The study included the general designation of areas for residential development and green areas. In the local plan, the competition solutions were verified, maintaining the proposed principles of shaping areas for residential and service development, communication links and sequences of public spaces. At the stage of developing the plan, the verification of the functional and spatial structure included the following issues:

- correction of the course of some roads to take into account the course of the existing gas pipeline (in the conditions of the competition it was assumed that the gas pipeline could be relocated, but later it was considered more economical to keep it in the existing course),
- simplifying the route of the bypass, taking into account its route through the area of the archaeological site, which could be closed once the archaeological study is completed,
- correction of the course of the local road to obtain view closures: the palace and the church tower,
- taking into account the results of natural analyses of the preservation of valuable existing tree canopies,
- allocation of land in the southern part of the study area for recreational and sports functions and surface rainwater retention.

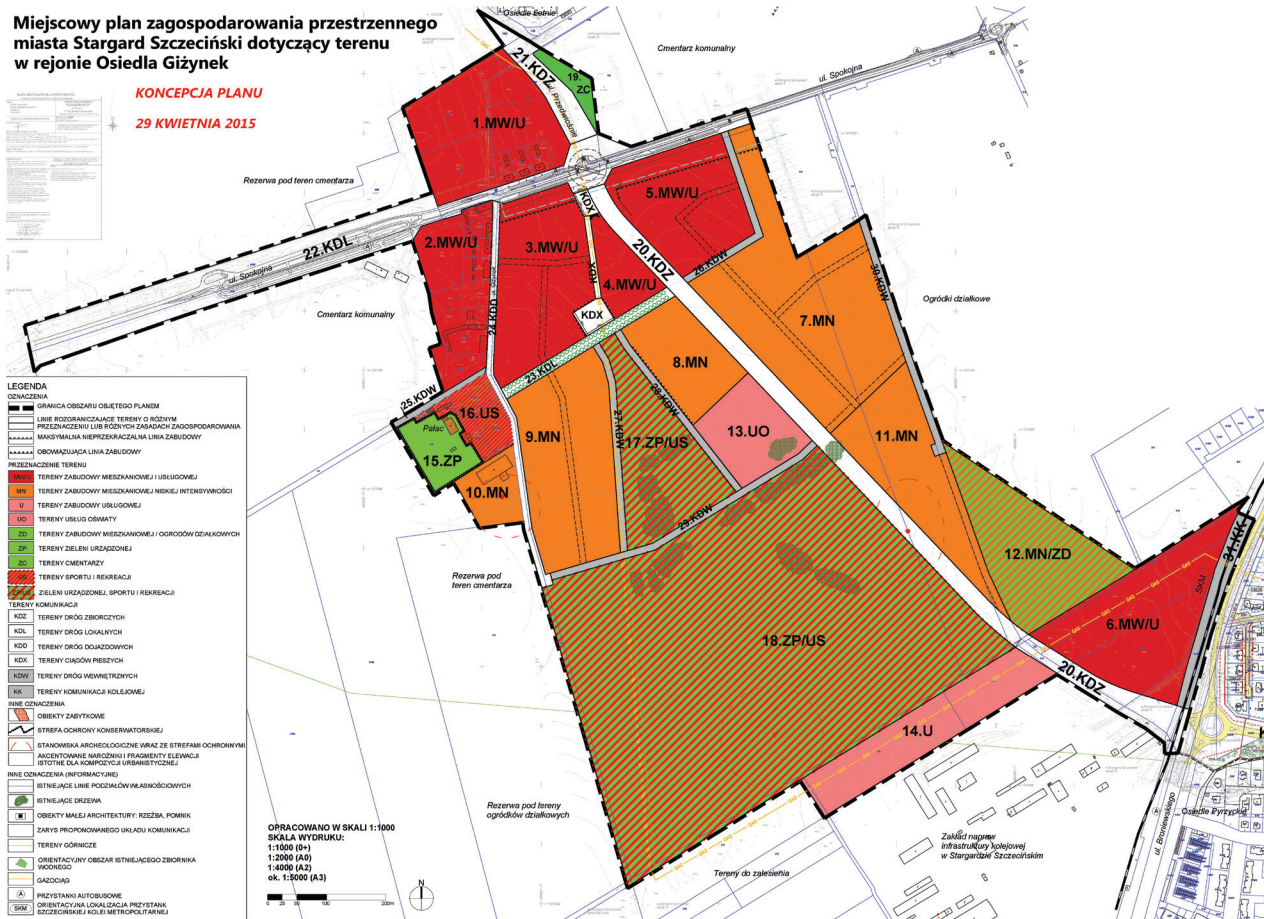


Fig. 9. Drawing of the local development plan – working variant with fewer findings (elaborated by M. Stangel)

II. 9. Rysunek mpzp – wariant roboczy z mniejszą liczbą ustaleń (oprac. M. Stangel)

An important issue to be resolved at the stage of formulating the plan's findings was whether to sanction only the main prejudices of the functional and spatial structure in the plan, leaving greater freedom to future designers of development complexes, or to include more detailed arrangements that could in the future ensure greater consistency of development and spatial order. Since opinions among the representatives of the commissioner of the study were divided, two working variants of the plan drawing were prepared.

The first variant takes into account the basic transportation system, separating larger residential and commercial development units of several hectares, and establishing mandatory building lines only in the most important places for the spatial structure: in the frontages of designed squares, squares and selected street sections (Fig. 9).

In contrast, the second variant, which was eventually selected for enactment, took into account a more detailed grid of access and internal roads, the fragmentation of development areas with a more precise indication of the distinction between low-intensity and high-intensity residential development with services (Fig. 10). Also included are more elements of shaping the urban structure, such as mandatory and impassable building lines, rows of trees, additional areas of landscaped greenery, existing trees to be preserved, recommended division into building and access lots. In addition, the [...] location of compact frontage

development and accented façade fragments important for the urban composition [31] were introduced as a mandatory element of the plan's findings designated on the drawing.

In the textual arrangements of the plan, in order to establish the spatial order, including frontages at the most important places in the public space, the following provisions were formulated:

§ 6. 1. The objective of the plan is to establish a functional and spatial structure of new urban areas while preventing haphazard and scattered development in the area. The plan aims to create a residential area that includes both multi-family and individual housing, along with the necessary amenities and infrastructure. The gradual and phased implementation of the plan will enable the fulfilment of the basic needs of future residents, as well as the development of sports and recreational areas and green spaces.

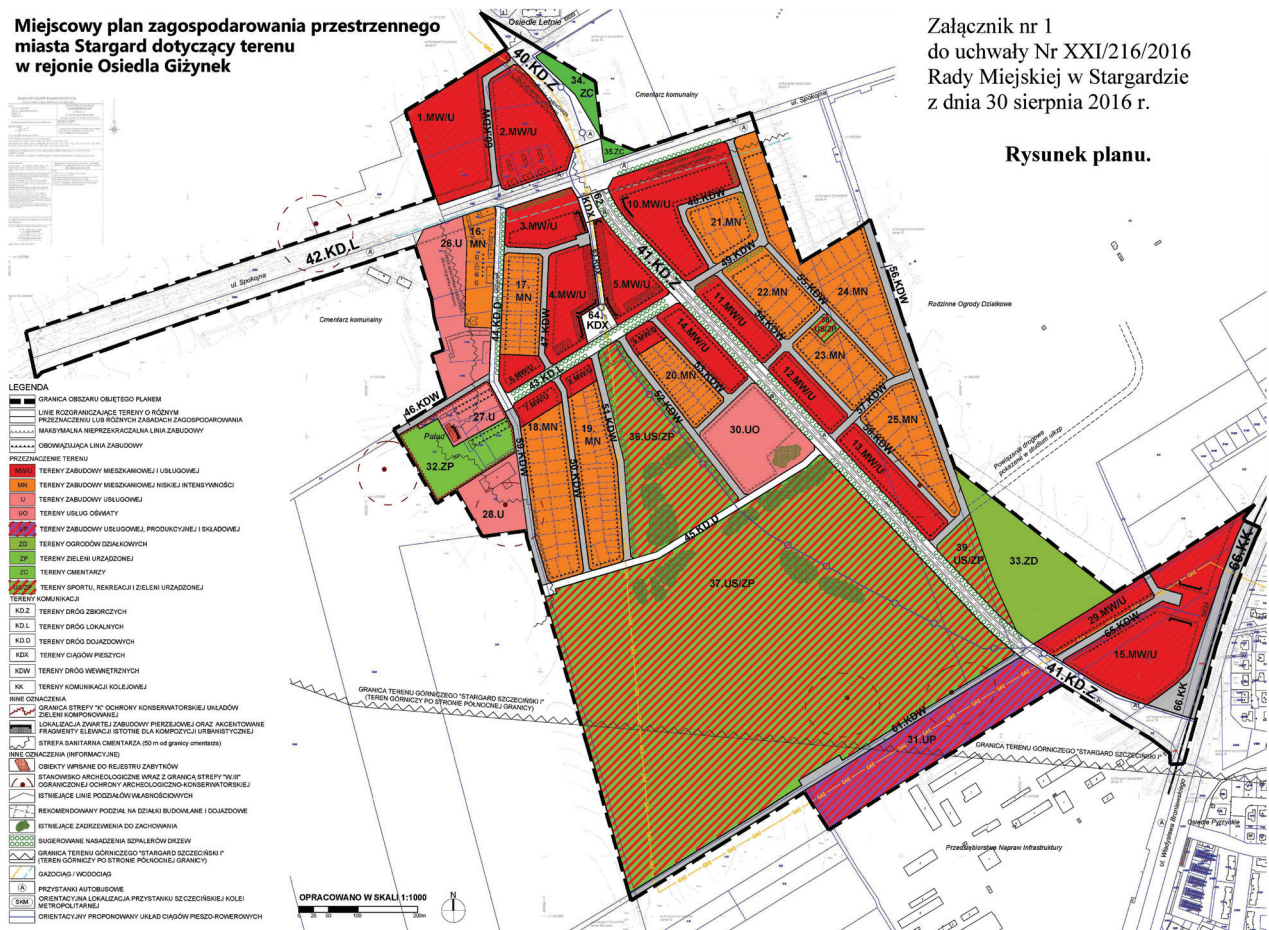
2. Principles of protection and formation of spatial order for the plan area:

1) In the northern part of the plan area, in the MW/U areas, in the places marked on the drawing of the plan, in order to shape the buildings with the character of compact frontage development, with services on the first floor, enclosing public spaces;

2) Fragments of façades important for the urban composition, marked on the drawing of the plan, in the MW/U areas require detailed architectural development, taking into



**Miejscowy plan zagospodarowania przestrzennego  
miasta Stargardu dotyczący terenu  
w rejonie Osiedla Giżynek**



Załącznik nr 1  
do uchwały Nr XXI/216/2016  
Rady Miejskiej w Stargardzie  
z dnia 30 sierpnia 2016 r.

**Rysunek planu.**

Fig. 10. Drawing of the enacted local development plan (elaborated by M. Stangel)

II. 10. Rysunek uchwalonego mpzp (oprac. M. Stangel)

account the use of high-quality materials, entrances to buildings from ground level, and the order to make in the first floors of buildings commercial and retail storefronts on at least half of the façade of each building on the side of the KDX pedestrian routes [31, Ch. 2, par. 3].

In addition, in the detailed arrangements for the areas marked on the drawing of the plan with the symbol MW/U – areas of residential and service development, located next to the shaped public spaces – an order was formulated:

*In the areas of 3.MW/U, 4.MW/U and 5.MW/U for developments located on the border with pedestrian traffic areas and road 43.KDL, as shown in the drawing of the plan, it is required to locate compact frontage development, with service functions on the first floor; with entrances to service premises directly accessible from the level of public squares, KDX pedestrian routes and road 43.KD.L [31, Ch. 3, par. 13].*

### Summary and conclusions

For shaping urban areas in the context of the challenges of sustainable development, the idea of the compact city, which postulates the intensification of development and the shuffling of functions while shaping a system of public spaces, is now widely adopted. The implementation of this model at the local level and the translation to the specifics

of individual locations requires the adaptation of universal principles to a specific site.

The article presented two initiatives of Polish medium-sized cities concerning the shaping of space, based on a study architectural and urban planning competition. The assumptions of the winning entries were then verified on the basis of the jury's guidelines and branch studies and conceptual studies (environmental, communication, infrastructural, ownership, etc.), and then translated to the provisions of local spatial development plans.

The author's concepts assume that the investment realities of medium-sized cities do not allow for the formation of an intensive quarter structure, typical of a compact city, but it is possible to delineate elements of a relatively denser urban structure – development frontages, services, public spaces – in key locations that would constitute the nodal points of the future district. Reflection on the proposed solutions made it possible to identify components that can provide guidance for similar urban themes. Among the most important of these are:

- the formation of a sequence of diverse public spaces as the canvass of the future urban structure, containing such elements as a city square, square, arcade, avenues and neighbourhood streets,
- taking into account the existing tree canopies as the basis for the formation of the layout of public spaces, with

the addition of new green areas, rows of trees along the streets and isolation green zones,

- adaptation of land depressions and green areas to create optimal conditions for local rainwater retention,

- shaping active frontages of buildings enclosing the public spaces by establishing binding building lines and additional arrangements of the development plan, both on the drawing and in the building form indicators in the textual arrangements,

- arrangements on the drawing of the plan with key places which are important for the urban composition, with a gradation of the strictness of regulatory provisions: from strict provisions in key places – nodes of the spatial structure, to greater flexibility in less important places,

- structural elements to promote sustainable mobility, such as pedestrian and bicycle routes, a grid of neighbourhood streets, as well as clear spatial links to public transportation stops.

The described concepts and local development plans aimed at concretizing the idea of the compact city in the realities of medium-sized cities in Poland, showing both the possibilities of its implementation and the challenges of adapting general principles to the local context. The analysis of the cases presented in the article can contribute to the improvement of practices and research work related to the

materialization of the ideas of the compact city and their implementation in relation to individual locations, as well as to the ways of translating the concept into the provisions of local plans. The described cases are undoubtedly also an example of the inadequacy of the planning instruments available in Poland, as pointed out by numerous critical studies (e.g., [32]).

The 2023 amendment to the Spatial Planning and Development Act [13] introduced changes to improve the ineffective planning mechanisms in Poland. At the stage of adopting the law, one of the demands was to strengthen the role of urban design and to include the development of an urban design concept as one of the mandatory elements of spatial planning for the development of urban built-up areas. In the end, this was not included in the law. Nevertheless, numerous examples of successive architectural and urban design competitions held in recent years show the spread of the idea of the compact city. In this context, it is advisable to improve the methods of shaping the urban structure and to translate the solutions developed in the processes of research by design into planning regulations and standards.

*Translated by  
Michał Stangel*

## References

- [1] Haas T., *Sustainable urbanism and beyond. Rethinking cities for the future*, Rizzoli, New York 2012.
- [2] Lehmann S., Mainguy G., *Green urbanism: formulating a series of holistic principles*, "SAPIENS" 2010, Vol. 3, No. 2, <https://journals.openedition.org/sapiens/1057> [accessed: 13.10.2023].
- [3] Farr D., *Sustainable urbanism – urban design with nature*, Wiley, New Jersey 2008.
- [4] Stangel M., *Kształtowanie współczesnych obszarów miejskich w kontekście zrównoważonego rozwoju*, Wydawnictwo Politechniki Śląskiej, Gliwice 2013.
- [5] Moreno C., Allam Z., Chabaud D., Gall C., Pratlong F., *Introducing the "15-Minute city": sustainability, resilience and place identity in future post-pandemic cities*, "Smart Cities" 2021, Vol. 4, Iss. 1, 93–111, doi: 10.3390/smartcities4010006.
- [6] Beim M., *Teoretyczne podstawy koncepcji miasta piętnastominutowego w kontekście debaty o związkach planowania przestrzennego i polityki transportowej*, "Prace Komisji Geografii Komunikacji PTG" 2021, 24(1), 57–63, doi: 10.4467/2543859XPKG.21.005.14948.
- [7] *Cele Zrównoważonego Rozwoju ONZ*, [www.un.org/pl/](http://www.un.org/pl/) [accessed: 13.10.2023].
- [8] Komisja Europejska, *Agenda miejska Unii Europejskiej*, [commission.europa.eu/eu-regional-and-urban-development/topics/cities-and-urban-development/urban-agenda-eu\\_pl](http://commission.europa.eu/eu-regional-and-urban-development/topics/cities-and-urban-development/urban-agenda-eu_pl) [accessed: 13.10.2023].
- [9] Ministerstwo Funduszy i Polityki Regionalnej, *Krajowa Polityka Miejska 2030*, [Warszawa] [2022], [www.gov.pl/web/fundusze-regiony/polityka-miejska](http://www.gov.pl/web/fundusze-regiony/polityka-miejska) [accessed: 13.10.2023].
- [10] Sykała Ł., *Czym jest miasto zwarte?*, [www.gov.pl/web/wuf11/czym-jest-miasto-zwarte](http://www.gov.pl/web/wuf11/czym-jest-miasto-zwarte) [accessed: 13.10.2023].
- [11] *Nowy model urbanizacji w Polsce – praktyczne wdrożenie zasad odpowiedzialnej urbanizacji oraz miasta zwarte*, [newurbpact.pl/?page\\_id=84](http://newurbpact.pl/?page_id=84) [accessed: 13.10.2023].
- [12] Ministerstwo Rozwoju i Technologii, *Konkurs o nagrodę Ministra Rozwoju i Technologii za wybitne osiągnięcia twórcze w dziedzinach architektury i budownictwa oraz planowania i zagospodarowania przestrzennego*, 13.10.2022, [www.gov.pl/web/rozwoj-technologie/](http://www.gov.pl/web/rozwoj-technologie/)
- konkurs-o-nagrade-ministra-rozwoju-i-technologie-za-wybitne-osiagniecia-tworcze-w-dziedzinach-architektury-i-budownictwa-oraz-planowania-i-zagospodarowania-przestrzennego [accessed: 13.10.2023].
- [13] *Ustawa z dnia 7 lipca 2023 r. o zmianie ustawy o planowaniu i zagospodarowaniu przestrzennym oraz niektórych innych ustaw*, Dz.U. 2023, poz. 1688, <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20230001688> [accessed: 13.10.2023].
- [14] Rembeza M., Sas-Bojarska A., *The changing nature of in-between spaces in the transformation process of cities*, "Urban Planning" 2022, Vol. 7, No. 1, 32–43, doi: 10.17645/up.v7i1.4444.
- [15] Godin D., Zahedi M., *Aspects of research through design: a literature review*, [in:] Y. Lim, K. Niedderer, J. Redström, E. Stolterman, A. Valtonen (eds.), *Design's Big Debates – DRS International Conference 2014, 16–19 June, Umeå, Sweden*, Umeå University, Umeå 2014, <https://dl.designresearchsociety.org/drs-conference-papers/drs2014/researchpapers/85> [accessed: 13.10.2023].
- [16] Hauberg J., *Research by design – a research strategy*, "AE... Revista Lusófona de Arquitectura e Educacao" 2011, n. 5, 46–56, <http://revistas.ulusofona.pt/index.php/revlae/issue/current> [accessed: 13.10.2023].
- [17] Niezabitowska E., *Metody i techniki badawcze w architekturze*, Wydawnictwo Politechniki Śląskiej, Gliwice 2014.
- [18] Roggema R., *Research by design: proposition for a methodological approach*, "Urban Science" 2017, Vol. 1, Iss. 1, 2, doi: 10.3390/urbansci1010002.
- [19] Solarek K., Pudelko A., Mierzwicki K., Solarek K., Bartosik Z., Pyjor A., *The potential of the research by design method in balancing water problems: An integrated water and space management program for a part of the Warsaw agglomeration*, "Cities" 2022, Vol. 121, 10345, doi: 10.1016/j.cities.2021.103455.
- [20] *Rozporządzenie Ministra Rozwoju i Technologii z dnia 17 grudnia 2021 r. w sprawie wymaganego zakresu projektu miejscowego planu zagospodarowania przestrzennego*, Dz.U. 2021, poz. 2404, <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20210002404> [accessed: 13.10.2023].

- [21] *Miejscowy plan zagospodarowania przestrzennego miasta Tczewa. Uchwała Nr XXVIII/263/2005 Rady Miejskiej w Tczewie z dnia 27 stycznia 2005 r.*, [https://bip.tczew.pl/wiadomosci/1123/wiadomosc/753/uchwala\\_nr\\_xxviii2632005\\_rady\\_miejskiej\\_w\\_tczewie\\_z\\_dnia\\_27\\_styc](https://bip.tczew.pl/wiadomosci/1123/wiadomosc/753/uchwala_nr_xxviii2632005_rady_miejskiej_w_tczewie_z_dnia_27_styc) [accessed: 10.06.2024].
- [22] *Studium uwarunkowań i kierunków zagospodarowania przestrzennego miasta Tczewa, Uchwała nr XXXVII/291/2013 z dnia 31 października 2013 r.*, [https://bip.tczew.pl/wiadomosci/1123/wiadomosc/216536/uchwala\\_nr\\_xxxvii2912013\\_rady\\_miejskiej\\_w\\_tczewie\\_z\\_dnia\\_31\\_pazd](https://bip.tczew.pl/wiadomosci/1123/wiadomosc/216536/uchwala_nr_xxxvii2912013_rady_miejskiej_w_tczewie_z_dnia_31_pazd) [accessed: 10.06.2024].
- [23] *Regulamin konkursu urbanistyczno-architektonicznego na zagospodarowanie Nowego Centrum Usługowego w Tczewie*, [wrotatczewa.pl/zp/archiwum2020/wt2020/wrotatczewa.pl/zamowienia-publiczneb61e.html?view=details&name=konkurs-na-opracowanie-konceptji-urbanistyczno-architektonicznej-nowecentrum-uslugowe-w-tczewie](http://wrotatczewa.pl/zp/archiwum2020/wt2020/wrotatczewa.pl/zamowienia-publiczneb61e.html?view=details&name=konkurs-na-opracowanie-konceptji-urbanistyczno-architektonicznej-nowecentrum-uslugowe-w-tczewie) [accessed: 13.10.2023].
- [24] Melnicki, T., *Nowe Centrum Usługowe w Tczewie – I Nagroda*, [archinea.pl/nowe-centrum-uslugowe-w-tczewie-i-nagrada/](http://archinea.pl/nowe-centrum-uslugowe-w-tczewie-i-nagrada/) [accessed: 13.10.2023].
- [25] *Uchwała nr LX/67/2015 Rady Miejskiej w Tczewie z dnia 27 sierpnia 2015 r. w sprawie uchwalenia miejscowego planu zagospodarowania przestrzennego terenu Nowego Centrum Usługowego przy ul. Wojska Polskiego w Tczewie*, [https://bip.tczew.pl/wiadomosci/1123/wiadomosc/287445/uchwala\\_nr\\_ix672015\\_rady\\_miejskiej\\_w\\_tczewie\\_z\\_dnia\\_27\\_sierpnia](https://bip.tczew.pl/wiadomosci/1123/wiadomosc/287445/uchwala_nr_ix672015_rady_miejskiej_w_tczewie_z_dnia_27_sierpnia) [accessed: 14.06.2024].
- [26] *Nowe Centrum Tczewa*, <https://wrotatczewa.pl/nct-nowe-centrum-tczewa/> [accessed: 29.03.2024].
- [27] *Nowe Koszary*, <https://home-4you.pl/> [accessed: 29.03.2024].
- [28] *Studium uwarunkowań i kierunków zagospodarowania przestrzennego miasta Stargardu Szczecińskiego”, przyjęte uchwałą Nr LX/107/2011 Rady Miejskiej w Stargardzie Szczecińskim z dn. 30 sierpnia 2011 r., zmienione uchwałą Nr XXVI/301/2013 z dn. 26 lutego 2013 r., uchwałą Nr IV/30/2015 z dn. 3 lutego 2015 r. oraz uchwałą Nr XVI/182/2016 z dn. 23 lutego 2016 r.*, <https://stargard.eu/dla-mieszkanca/zagospodarowanie-przestrzenne/studium-uwarunkowan-i-kierunkow-zagospodarowania-przestrzennego-miasta/> [accessed: 14.06.2024].
- [29] *Sztuka Architektury, Osiedle Giżynek w Stargardzie Szczecińskim na nowo*, <https://sztuka-architektury.pl/article/2961/osiedle-gizynek-w-stargardzie-szczecinskim-na-nowo> [accessed: 14.06.2024].
- [30] *Wyniki konkursu na opracowanie koncepcji programowo-przestrzennej zagospodarowania terenów w rejonie Osiedla Giżynek w Stargardzie Szczecińskim*, <https://sztuka-architektury.pl/article/2961/osiedle-gizynek-w-stargardzie-szczecinskim-na-nowo> [accessed: 7.02.2024].
- [31] *Uchwała Nr XXI/216/2016 Rady Miejskiej w Stargardzie z dn. 30 sierpnia 2016 r. w sprawie uchwalenia miejscowego planu zagospodarowania przestrzennego miasta Stargard dotyczącego terenu w rejonie Osiedla Giżynek*, <https://stargard.e-geoportal.pl/planplik/1015> [accessed: 14.06.2024].
- [32] Szlenk-Dziubek D., Wisłocka O., *System planowania przestrzennego w Polsce. Kluczowe problemy i słabości*, Instytut Rozwoju Miast i Regionów, Warszawa 2021.

## Streszczenie

### *Adaptacja modelu miasta zwartego w planowaniu nowych terenów miast średniej wielkości. Od koncepcji konkursowych do planów miejscowych na przykładzie Tczewa i Stargardu*

W artykule przedstawiono zagadnienie konkretyzacji idei miasta zwartego w planowaniu nowych obszarów zabudowy w miastach średniej wielkości w Polsce. Zagadnienie to jest w nim rozpatrywane na bazie autorskich doświadczeń ze zwycięskich koncepcji konkursowych i opracowywanych na ich podstawie miejscowych planów zagospodarowania przestrzennego. Opisane zostały dwa przykłady: Nowe Centrum Usługowe w Tczewie, położone na terenie powojkowym, oraz podmiejskie obszary mieszkaniowe w gminie Stargard.

Przedmiotem pracy jest refleksyjne badanie własnej praktyki projektowej i planistycznej. Zastosowano metodykę *research by design*, dotyczącą powiązania procesów projektowych i badawczych w celu uzyskania nowej wiedzy o danej przestrzeni. Podstawowy model metodologiczny zakłada cykl analiz, projektowania i syntezy. Punktem wyjścia była analiza uwarunkowań na bazie materiałów źródłowych, map i obserwacji w terenie. Pozwoliła ona na wyszczególnienie kluczowych elementów dla kształtowania nowej struktury. Studia te pozwoliły na skonkretyzowanie założeń projektowych i opracowanie koncepcji, których synteza i weryfikacją było opracowanie planów miejscowych, zgodnie z możliwościami dostępnymi w ramach techniki planistycznej.

Na podstawie przedstawionej analizy można wnosić, że model miasta zwartego, uznawany za kluczowy w kontekście zrównoważonego rozwoju, wymaga indywidualnego podejścia przy adaptacji do lokalnych uwarunkowań. Prezentowane przykłady z miast średniej wielkości w Polsce mogą dać wiele praktycznych wskazówek, dotyczących m.in.: wykorzystania konkursów do określenia przyszłej wizji przestrzeni, kształtowania systemu przestrzeni publicznej w oparciu o lokalne walory czy weryfikacji założeń konkursowych w procesie planistycznym.

W kontekście zmian w *Ustawie o planowaniu i zagospodarowaniu przestrzennym z 2023 r.*, choć nie doszło do formalnego wzmocnienia roli projektowania urbanistycznego w procesie planistycznym, obserwuje się rosnącą popularność idei miasta zwartego w praktyce. Istnieje zatem potrzeba doskonalenia metod kształtowania miejskiej struktury, zwłaszcza z wykorzystaniem badań przedprojektowych. Przedstawione wnioski mogą przyczynić się do doskonalenia praktyk planistycznych oraz efektywnego wdrażania idei miasta zwartego w planowaniu nowych obszarów miast średniej wielkości.

**Słowa kluczowe:** miasto zwarte, przestrzeń publiczna, konkurs urbanistyczno-architektoniczny, koncepcja urbanistyczna, planowanie miejscowe, SDG11



