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SPATIAL STRUCTURE OF USTKA AND TENDENCIES OF CHANGES IN A PERIOD OF SYSTEM TRANSFORMATIONS

Eugeniusz Rydz, Iwona Jażewicz

Institute of Geography, Pomeranian Academy ul. Partyzantów 27, 76-200 Słupsk, Poland e-mail: rydz@pap.edu.pl e-mail: iwona_jazewicz@op.pl

Abstract

This article introduces the transformation process in functional and spatial structure in Ustka. The present spatial structure and land utilization in this town was influenced by numerous historical, cultural and natural conditions. The research shows that transformation processes and development trends observed in small holiday resorts located by the sea result from substituting former economic and service functions by tourist and service functions connected with providing tourist and health protection facilities in holiday and spa centers.

Key words: Ustka, functional structure, spatial structure, urban area, invested districts

INTRODUCTION

Social and economic transformation processes introduced in Poland after 1989 are reflected by transformations of a spatial structure. Transformations are characterized by various pace and range in particular regions. They are characterized by negative or positive occurrences that effect from development and progress. Sometimes the effects of transformations do not influence a specific unit, community, subregion or region in a significant way. Generally the analysis of spatial changes includes numerous issues such as geographical location, size, transportation facilities and access or distance from economic centers, level and sort of investment in previous periods. Transformations also depend on local society's potential, its age, education and economic activities.

The most significant features of the turn of the 20th century are consequences of economic transformations. They influenced bankruptcy of numerous factories and industry centers and were connected with crisis of various branches of the national economy, political situation (ship-building industry), limiting of fishing, fish processing and closing down of the numerous state farms in the region of Pomerania.

It effects with spatial degradation since the previous functions are not substituted by the new ones. The area and buildings were devastated before they were sold and the new owners sometimes do not have plans and possibilities to introduce modern forms of investment and development.

Crisis situations complicate radically life of people from small centers without alternative sources of income and influence their image in a negative way. The situation concerns some of small towns located in the Central Pomerania such as Barwice, Polanów, Karlino and Debrzno.

More than ten year experience of the authors of the present paper and the conducted research show that economic transformations did not influence radically small towns located by the sea such as Łeba, Darłowo, Ustka or Dźwinów. The research shows that transformation processes and development trends observed in small holiday resorts located by the sea result from substituting former economic and service functions by tourist and service functions connected with providing tourist and health protection facilities in holiday and spa centers.

LOCATION AND TERRITORIAL DEVELOPMENT OF A TOWN

The present spatial structure and land utilization in Ustka was influenced by numerous historical, cultural and natural conditions. The town is characterized by location of a river and sea shipyards that influenced establishing of Ustka. The location influenced historical background of the town significantly (Fig. 1). The place has its own atmosphere, its unique "genius loci"¹ reflected by architecture typical for old fishermen's site. The history of Ustka is extremely interesting and is connected with its territorial development due to an increase of economic and political influence of Ustka. Development processes of Ustka and increasing of its influence used to be associated with a position of Słupsk considered the main economic center in the Central Pomerania (Lindmajer et al. 1985). Development of a tourist function of Ustka in the 19th century influenced territorial expansion of the town. On the turn of the 19th century the town expanded to the east. The existing streets were expanded (present: Chopina, Mickiewicza, Kościuszki and Kilińskiego streets). In a rectangular structure of the mentioned streets there was built a typical residential area characterized by sublime and impressive architecture that created a unique and homogenic character of this Ustka part.

At present Ustka in its administrative division from 2003 covers 1 014 ha. The town that officially was granted the city rights in 1935 is characterized by a unique construction created by basic elements of configuration and management of the area that influenced the present urban structure of the town. The mentioned elements include: the mouth of the Słupia River, the shore, forest complexes at both sides of the river's mouth, transport facilities and infrastructure connecting Ustka with Słupsk.

¹ According to *Dictionary of foreign words and foregin-language expressions* by W. Kopaliński, "genius loci" is a ghost ruling over and taking care of the place.

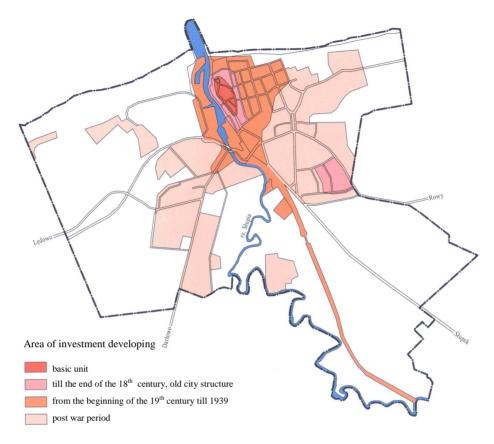


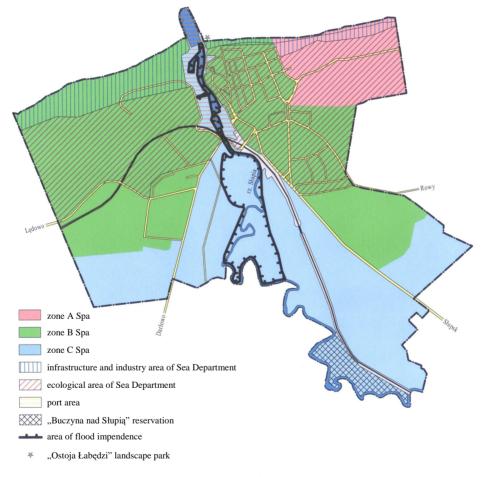
Fig. 1. Spatial development of Ustka Source: Strategic program of ecodevelopment of Ustka from 1996

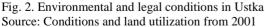
The elements and their mutual relation resulted with the basic structural and landscape units of $Ustka^2$:

- fishing and industrial shipyard located on the right bank of the river;
- fishing and industrial shipyard located on the left bank of the river;
- residential and spa district of the first phase of development of the resort;
- residential and hotel district of the second phase of development of the resort;
- forests and parks located by the sea shore, including the spa park;
- an area including a construction of not implemented urban structure from the twenties;
- an area surrounding an urban core (apartment-house districts);
- satellite residential districts.

² Study of conditions and directions in land development of Ustka municipality (Resolution Nr VI/23/2001 of City Council in Ustka, 2001).

The spatial structure of Ustka is influenced significantly by nature and connected with it development barriers and scant territorial reserves. The stable development barriers are the forests and the sea shore. Expansion of Ustka in the adjoining area might cause disproportionate increase of cost connected with human activities and lead to depreciation of natural and landscape qualities of the town by being in conflict with basic tourist, spa and recreation functions of the resort. Legal regulations connected with protection of the coast and spa function (Fig. 2) play the most important role in implementing of spatial policy of the town. According to the present regulations the Ministry of Health decides and accepts the projects of management of particular A, B, C protected areas. Additionally the forms of land utilization of particular areas were included in a Statutory Act of Ustka Town³.





³ Statute of Ustka was claimed through resolution of City Council Nr XXII/198/2004, 30 June 2004.

Restricted zones under special construction inspection connected with a country's defenses remain quite important barriers in functional and spatial development processes of Ustka town. The zones remain into possession of the army and coast guards. Their location in the town influences significantly further development projects of Ustka, especially in its west part. The town structure also includes areas protected by a law of nature protection such as "Buczyna nad Słupią" nature reservation, fragment of "Pas pobrzeża na zachód od Ustki" a protected area with xerothermal and dune-forming plants and "Ostoja Łabędzi" – a nature and landscape group.

FUNCTIONAL AND SPATIAL STRUCTURE OF THE TOWN AND TENDENCIES OF CHANGES

A spatial functional structure of the town creates a complex of groups corresponding with particular spheres of life and activities. Some of the buildings are pulled down, some new are built, some districts change their character, forests and parks change their structure, transport infrastructure is being modified. At the same time social structures and connected with them functions also undergo modification processes.

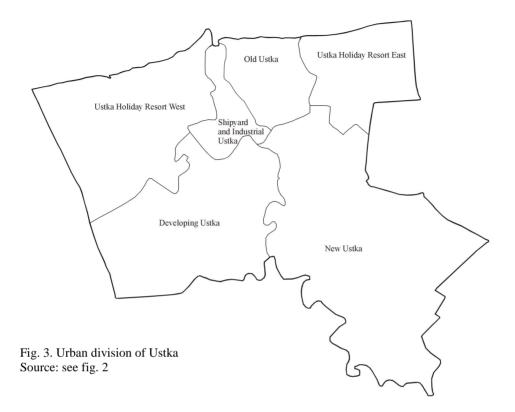
The town of Ustka is located in a multi-function coastal region characterized by tourist – agriculture – forest qualities, in a functional district of the Baltic coast. Its structure is associated functionally and influenced by the vicinity of the sea and domination of environmental functions including protection of the Baltic shore.

Spatial and functional structure of a town is a complex arrangement. The present paper shows that an area of Ustka was divided into six urban units (Fig. 3).

The field research of urban units shows that "New Ustka" is dominated by residential architecture with a high share of apartment house districts. This part of the city is generally well equipped with technical infrastructure, public and commercial services provided for the local people. It is an area characterized by well developed spatial structures with limited options of development.

"Ustka Wczasowa Wschodnia" (Ustka Holiday Resort East) plays a different role than the mentioned above urban unit. It is a unit characterized by typical spa and holiday resort functions located in the close vicinity of the sea. It includes the sea shore forests with located there spa centers. It is an area of limited investment concentrated on modernizing and transforming of the districts invested in the past.

Another urban unit – "Ustka Portowo-Przemysłowa" (Shipyard and Industrial Ustka) includes areas of economic and industrial development. There is a port and the adjoining area, including the shipyard. According to the land utilization program this particular area is being modernized, that effects with transformation of existing production functions into development of services and means connected with supporting tourist and recreation functions. The initiatives include building of marina, proper utilization of public districts such as parks or promenades and new services. Almost the whole district of this Ustka part is considered as a strategic area of public interest that influences significantly prestige, importance and development options of the town.



"Ustka Wczasowa Zachodnia" (Ustka Holiday Resort West) is located in the west part of the town. It includes forests and some restricted areas under control of the army and coast guards. It is a district of limited investment options also in regard to the regulations connected with nature and environmental protection.

"Ustka Rozwojowa" (Developing Ustka) includes districts of housing development projects (Fig. 3). This part of the town includes residential and apartment house areas. The district is located in an area located at Zubrzyckiego, Kwiatowa, Darłowska and Polna streets. According to the plans presented by the local authorities a part of this district, thanks to the new transport facilities and infrastructure, will connect via the Słupia River Darłowska and Słupska streets.

Development and transformations of internal urban structure are also influenced by privatization processes and other forms of area affranchisement. Increase of rational land utilization is considered the most important effect of such changes. According to the research conducted in the described town, 283 construction plots of various size were sold by tender between 1996 and 2004. The plots covered 1.53% of the total area of the town. The plots owned by the municipal community were sold by tender and other forms of auctions (Tab. 1). The records show that between 1996 and 2004 the community sold the plots in purpose to improve conditions of the previously developed real estate. The mentioned area did not include separate construc-

tion plots that could be sold by tender. The majority of such plots was sold in the region of "Ustka Rozwojowa" (Developing Ustka), along Kowalewskiego, Nowa, Żeglarzy and Wilcza streets. Private investors bought the areas owned by the municipal community. According to the records the prices of plots were quite high e.g. a plot at Beniowskiego street located 130 meters from the sea was sold at 687 PLN per 1 m² in 1999.

Table 1

Years		Number of sold plo	Total area of sold plots in	Share of town's land	
Tears	total	adjudication by tender	To improve conditions	m ²	in%
1996	16	16	-	10 510	0.10
1997	32	24	8	6 044	0.05
1998	24	22	2	3 485	0.03
1999	25	14	11	7 422	0.07
2000	33	17	16	32 366	0.32
2001	31	12	19	54 251	0.05
2002	34	5	29	6 168	0.06
2003	30	6	24	9 650	0.09
2004	58	20	38	25 355	0.25
Total	283	136	147	155 251	1.02

Volume of sale of community land in Ustka, adjudication by tender between 1996-2004

Source: Data collected in Real Estate Department of Municipal Office in Ustka

Present geographic studies concerning organization of urban areas allow to define numerous factors influencing transformation processes connected with population's concentration, economic activities etc. According to S. Liszewski (1997) legal regulations concerning ownership rights remain the most important factors reflected by geodetic division of town's area in reference to ownership status. After 1999 legal regulations concerning ownership rights and land utilization became more important and influenced utilization of each district by regulating plots' price, rent levels or taxes on real estate (Rydz 1999).

According to the scientific data similarly to other Polish towns there are districts of various ownership status in Ustka (Tab. 2). The structure of land's ownership is dominated by ownership of the State Treasury (about 60.0% of general area) and municipal community (30.0%). However between 1998-2004 the structure tended to evolve in favor to private ownership (increase with 4.1 percentage points). The area owned by the State Treasury includes forests managed and utilized by a Regional Office of the State Forestry in Szczecinek, investment areas including the port, ship-yard, coastal infrastructure, some holiday centers, schools, military area and military

	Area in years						
Specification	1998		2002		2004		
	in ha	in %	in ha	in %	in ha	in %	
Total	1014	100.0	1014	100.0	1014	100.0	
Land of private investors	61	6.1	97	9.6	104	10.2	
Land of The State Treasury	617	60.8	604	59.5	602	59.4	
Land of Ustka's community	336	33.1	313	30.9	308	30.4	

Proprietary structure of land in Ustka in 1999, 2002 and 2004

Table 2

Source: GEOD-02. Annual report: list of land according to the records from 1998, 2002 and 2004, Municipal Office in Ustka and District Office in Słupsk

residential districts. The communal area includes apartment house and residential districts, transportation infrastructure and facilities, recreation and holiday centers. Between 1998-2004 they recorded very dynamic transformation processes concerning conveyancing of the property from community's resources that used to be in perpetual lease. The transformation processes were based on the strength of a statute from 1997⁴ and its amendment from 2001⁵. According to the regulations valid in the described period perpetual lease of 691 plots of a total area of 28.5 ha was transformed into right of sole ownership.

INVESTED DISTRICTS AND THEIR LOCATION IN URBAN AREA

Necessity of transforming land usufruct remains a result of activities that lead to effectiveness and development of particular districts in economic, social and ecological spheres. A pace of transformation processes concerning land usufruct is the resultant of internal conditions defining streams and pace of such processes in a particular district and external conditions defining demand for specific sort of municipal usufruct (Rydz 1999).

The research shows that during a decade of 1994-2004 they recorded some changes in share of particular type of land usufruct in urban area (Tab. 3). An area of land connected with urban economy increased with 26 ha that is 9.2%. It includes increase of construction areas with 14.6% and undeveloped area that remains a sort of reserve for constructing purposes with 110.0%. An area of industrial districts of Ustka significantly decreased were converted into service districts (former property of "Losoś" Fish Processing Company) or residential and apartment house districts

⁴ Act of conversion the right of perpetual unsufruct of natural person into property right (Enactment Register, 1999, Nr 65, position 746 with following changes).

 ⁵ Act of receiving property rights by perpetual users of real estate (Enactment Register 2001, Nr 113, position 1209).

Structure of land utilization in Ustka recorded in 1994 and 2004

	Years					
Forms of land utilization	19	94	2004			
	in ha	in %	in ha	in %		
Housing districts	75	7.4	86	8.5		
Industrial districts	58	5.7	51	5.1		
Transportation districts	87	8.6	86	8.5		
Recreation and holiday districts	36	3.5	33	3.2		
Other developed area and urbanized undeveloped area	23	2.3	50	4.9		
Total developed and undeveloped area	279	27.5	306	30.2		
Arable land	178	17.6	152	15.1		
Forests, area planted with trees and shrubs	496	48.9	487	48.0		
Waters	36	3.5	25	2.4		
Other area	24	2.4	44	4.3		
Total undeveloped area	734	72.4	708	69.8		
Total area	1014	100.0	1014	100.0		

Source: The records provided by Municipal Office in Ustka and District Office in Słupsk

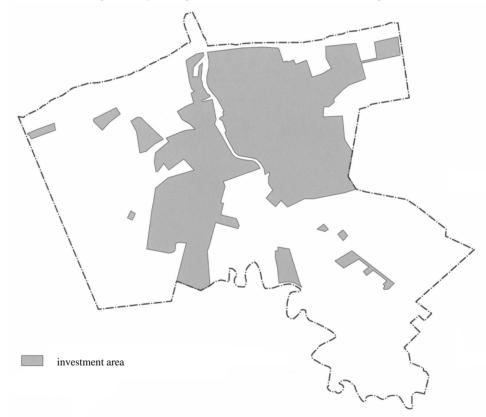


Fig. 4. Investment area in urban structure of Ustka in 2004 Source: see fig. 2 $\,$

Table 3

(former property of "Korab" Fishing and Fishing Services Company). The construction works were provided by "MAT-BET" Foreign Constructing Company. The research shows that an area of arable land also significantly decreased with about 17%. The situation is an effect of land utilization and zoning regulations, including housing policy implemented in Ustka in the nineties of the previous century. The process is based on space expansion of urban districts to agriculture area. The most dynamic transformations of land utilization were recorded in the south-west part of Ustka at Polna, Darłowska, Wrzosowa and Zubrzyckiego streets.

The research shows that the districts of investment do not combine a homogenous entity (Fig. 4). The districts are concentrated in the east part of Ustka (to the east from the Słupia River) except for small residential and service enclaves located in the south part of the town along Słupska street. The districts of investment located in the west part of Ustka are not concentrated except for area adjoining the port channel and the Słupia River.

A characteristic feature of Ustka's spatial structure is a division into three housing complexes of various genesis and character (Fig. 5). The central-east part of Ustka is dominated by apartment house architecture located at Kopernika, Wczasowa, XX-lecia PRL, Wróblewskiego, Hanki Sawickiej, Dąbrowszczaków and Grunwaldzka

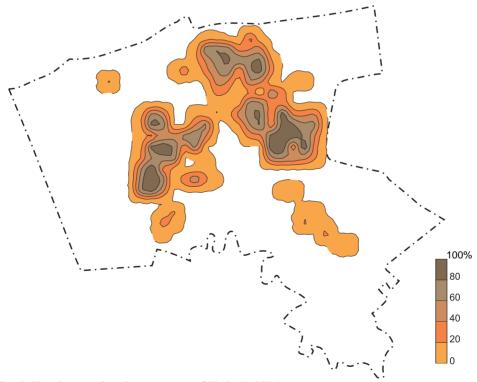


Fig. 5. Housing area in urban structure of Ustka in 2004 Source: M. Mokijewska. MA thesis "Changes in functional and spatial structure of Ustka between 1988-2004". Ed. E. Rydz, 2006

streets. Typical residential district is located to the south of the mentioned district. The west part of the town is dominated by apartment house architecture at Zubrzyckiego, Wilcza and Polna streets and residential architecture at Darłowska and Kwiatowa streets. Intensification of housing districts utilization is indicated by share of four-stories high apartment house architecture. Spatial structure of housing districts in Ustka is irregular with characteristic two centers located on both banks of the river; east and west side. The structure of housing districts of Ustka is also significantly influenced by environmental conditions.

Service areas are considered one of the most important urban spheres that according to numerous scientists remain coefficients of dynamics and implementation of economic and politic transformation processes introduced after 1989. However an analysis of urban service based on land utilization's maps is essentially deficient and deceptive procedure (Ratajski 1973). It results from the fact that service areas marked on the land utilization's map include single buildings (Fig. 6). Between 1994-2004 the number of economic subjects representing service sector increased from 1 024 to 1 923 that is about 87.8%, contributing to saturating the local market with services (in 2004 there were 114 economic subjects representing services per 1000 people). Trade, fixing and alteration services play the most important role in structure of service sector in Ustka – they combine about 40% of enterprises registered in the town.

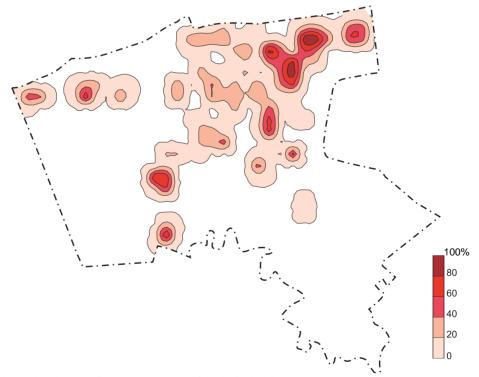


Fig. 6. Service area in urban structure of Ustka in 2004 Source: see fig. 5

A district covering an area of about 60 ha, limited by Marynarki Polskiej, Grunwaldzka, Plac Dąbrowskiego, Wczasowa, Leśna, Chopina and Zaruskiego streets plays the basic role in providing various services and functions for the Ustka's population. The area is divided among services, various administration institutions, health protection centers and education. Trade functions developed in units of "Ustka Wschodnia" and "Nowa Ustka" are complemented by education centers and facilities, restaurants, bars and hotels that are considered important elements of Ustka's structures.

Considering the whole service potential of Ustka, besides centers and facilities oriented to provide various services to the Ustka's inhabitants such as education or health care, a great number of specialized units provides services to tourists and visitors.

The researchers also analyzed districts with well developed service functions characterized by stable tourist infrastructure. In 2002 there were 41 tourist units (excluding accommodation facilities located in houses or apartments). Holiday centers offered the majority of accommodation facilities. The authors of the present paper observe constant tendency to increase a number of accommodation facilities in holiday and conference centers that confirms service functions keep developing also after the summer season (Jażewicz 2001).

Forests and parks play a very important role in land utilization structure in Ustka. In 2004 they covered an area of 510 ha (including 33 ha of recreation and holiday area and 487 ha of forests and parks) that was 50.3% of a total Ustka's area (Fig. 7). All forests located in Ustka were classified as protected area providing various supplementing functions: ground protection (77.5 ha), hydroscopic (12 ha) and sanitation qualities (285 ha). The forests providing sanitation qualities are located by the sea shore in the vicinity of sanatory and spa centers. In the north and north-west parts of Ustka there are located various forms of coastal crowberry woods while in the south--west part is dominated by acid lowland beech and subatlantic acidophil beech-oak woods. Coastal woods constitute groups of very specific qualities and demands and that is why they need a special utilization. Green spaces located in Ustka's center cover only a scant area of the town. There are some maple, linden, pine, poplar and ash trees planted along the main streets. Interesting groups of plants are located at Słupska, Wróblewskiego, Dabrowszczaków, Wczasowa and Wilcza streets. The trees and shrubs play an isolation function. Beautiful and well maintained plants are plated by the buildings or centers connected with education, administration or in holiday and spa centers.

Forests and parks improve sanitary qualities of Ustka and remain popular places of recreation. They are also a very important esthetical element of Ustka's land-scape. The Board of Ustka according to the regulation from 30th of September 1999 decided to start 7 municipal parks at Zaruckiego, Chopina, Promenada Nadmorska, Plac Wolności, Marynarki Polskiej, Zaułek Kapitański and Wilcza streets.

In order to utilize the forests and parks in a proper way the authorities would like to join smaller complexes with the bigger ones. That will allow migrating of animals and insects between particular enclaves. The units located by the Słupia River should be joined with those located at Dworcowa and Grunwaldzka streets.

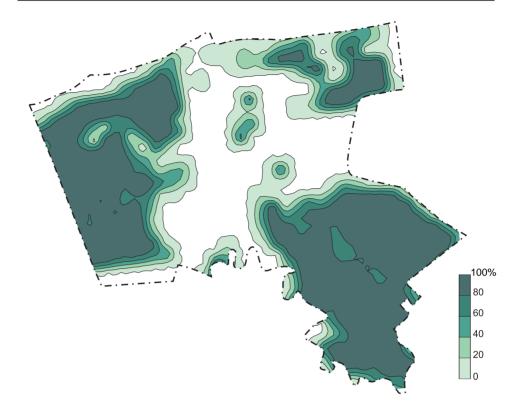


Fig. 7. Forests and parks in urban structure of Ustka in 2004 Source: see fig. 5

FINAL REMARKS

The presented considerations concerning land structure of Ustka show that functional and spatial structure is limited by a great number of development barriers (protected areas, forests, coast) and scant land reserves. There are also specific functional zones and land utilization limitations influenced by Ustka's location on both banks of the Shupia River.

The very center of Ustka is combined by two composition pivots, the first with Słupska and Marynarki Polskiej streets, and the second with Wróblewskiego street and Plac Dąbrowskiego. Due to development barriers districts of rapid economic development are located in the south-west part of the town along Darłowska street and in the south-east part in a direction of Przewłoka, a village situated in the neighborhood of Ustka.

An area of industrial districts was significantly limited in an effect of system changes and constant restructuring of industry. At present the industrial districts cover about 5.0% of Ustka's area and 16.0% of total investment area. Tourism and health care functions that remain historically influenced economic spheres based on

geographic location and natural resources increased significantly their importance. The authors observed fast development of tourist functions, mainly hotels, restaurants and trade. The observed development is not always rational and sometimes causes unfavorable changes in spatial structure of the town becoming one of the basic factors influencing degradation of natural environment.

REFERENCES

- Jażewicz I., 2001. Turystyczna baza noclegowa Ustki. W: Rekreacja i turystyka. Współczesne dylematy, zadania i perspektywy. (Tourist accommodation facilities of Ustka. In: Recreation and tourism. Contemporary dilemmas, tasks and perspectives). Poznań (in Polish).
- Lindmajer J., Machura T., Szultka Z., 1985. Dzieje Ustki. (History of Ustka). Polskie Towarzystwo Historyczne, Słupsk, (in Polish).
- Liszewski S., 1997. Przestrzeń miejska i jej organizacja. W: Geografia, człowiek, gospodarka. (Urban space and its utilization. In: Geography, man, economy). Kraków, 55-56, (in Polish)
- Matczak A., 1999. Studia nad strukturą funkcjonalno-przestrzenną miasta. Przykład Łasku. (Studies on functional and spatial structure of town. Illustrated by an example of Łask). Wydawnictwo Uniwersytetu Łódzkiego, Łódź (in Polish).
- Ratajski L., 1973. Metodyka kartografii społeczno-gospodarczej. (Methodology of social and economic cartography). PPWK, Warszawa, (in Polish).
- Rydz E., 1999. Zmiany w strukturze użytkowania ziemi na przykładzie Słupska i Szczecinka. W: XII Konwersatorium Wiedzy o Mieście. Przestrzeń miejska, jej organizacja i przemiany. (Changes in structure of land utilization illustrated by examples of Słupsk and Szczecinek. In: 12th Seminar on knowledge about a town. Urban space, its utilization and transformations. Departament of City and Tourism Geography of Łódź University, Łódź, 9-21, (in Polish).
- Rydz E., Jażewicz I., 2005. Współczesne procesy urbanizacji na przykładzie wybranych miast Pomorza Środkowego. W: Współczesne procesy urbanizacji i ich skutki. XVIII Konwersatorium Wiedzy o Mieście. (Contemporary urbanization processes illustrated by examples of selected towos loctaed In Central Pomerania. In: Contemporary urbanization processes and their results. (Ed.) I. Jażdżewska). 18th seminar on knowledge about a town. Departament of City and Tourism Geography of Łódź University, Łódź, 211-223, (in Polish).

STRUKTURA PRZESTRZENNA USTKI I TENDENCJE ZMIAN W OKRESIE TRANSFORMACJI SYSTEMOWEJ

Streszczenie

Opracowanie dotyczy przeobrażeń, jakie dokonały się w Ustce pod względem zagospodarowania przestrzeni miejskiej w okresie zmian systemowych. Zaznaczyć należy, że na obecny kształt struktury przestrzennej i kompozycję Ustki wpływ miało wiele uwarunkowań historyczno-kulturowych. Obecnie Ustka w swych granicach administracyjnych z 2004 r. zajmuje 1 011 ha. Miasto, które formalnie w 1935 r. otrzymało prawa miejskie, ma swoisty niepowtarzalny szkielet struktury utworzony przez podstawowe elementy ukształtowania i zagospodarowania terenu, które w jednoznaczny sposób ustaliły obecny obraz rozplanowania miasta. Z przeprowadzonych badań wynika, że strukturę przestrzenno-funkcjonalną Ustki podzielić można na sześć jednostek urbanistycznych.

W dalszej części artykułu omówione zostały podstawowe funkcje poszczególnych jednostek urbanistycznych. Generalnie można przyjąć, że tempo zmian w strukturze użytkowania gruntów jest wypadkową działania zarówno warunków wewnętrznych, określających kierunki i przebieg tego procesu na konkretnym obszarze, jak i warunków zewnętrznych, wyznaczających zapotrzebowanie na określone rodzaje użytków miejskich (Rydz 1999). Badania, jakie prowadzono pozwalają stwierdzić, że w dziesięcioleciu (1994-2004) nastąpiły pewne zmiany w udziale poszczególnych typów użytkowania gruntów w przestrzeni miejskiej (tab. 3), np. dość wyraźnie zmniejszyły się tereny przemysłowe, które przeznaczone zostały pod zabudowę usługową lub mieszkaniową. Cechą charakterystyczną Ustki jest występowanie trzech dużych zgrupowań mieszkaniowych o zupełnie różnej genezie i charakterze.