

POST-WAR RECONSTRUCTION. THE INFLUENCE OF EXISTING LAND MARKS ON THE URBAN ENVIRONMENT ON THE EXAMPLE OF MARIUPOL

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Abstract. At a time when Ukraine suffered significant destruction due to the full-scale invasion of Russia, the issue of restoring not only individual objects, but also cities as a whole is urgent. After all, most of the cities and towns in the east of Ukraine have suffered significant destruction. When there is a large amount of damage, the level of which must be determined by a special commission (the damage concerns not only buildings, but also transport connections, utility connections, etc.), the idea of a complete reconstruction of the city often arises. However, not everything can be changed: some urban and even architectural elements are necessary to be preserved. As a result, the elements of the ancient landscapes of cities—historical objects and spaces—necessary for the continuity of evidence of history and identity were preserved, often being completely reconstructed.

Relevance of topic. There are a lot of similar studies, because humanity still remembers the Second World War and the destruction that remained after it. So Bartosz Czarnecki and Michał Paweł Chodorowski in their work "Urban Environment during Post-War Reconstruction: Architectural Dominants and Nodal Points as Measures of Changes in an Urban Landscape" [1] investigated how much the urban landscape of the Polish city of Białystok changed during post-war reconstruction and transformation. And Denis Bocquet from the UNESCO Union revealed the topic: "Urban reconstruction as a complex process: reflections on post-1945 Berlin" [2], emphasizing the influence of the division of Berlin (into the eastern and western parts) on the formation of a new structural grid of the city.

The task of the research work is to study the influence of the remains of the urban center, including architectural dominants, on further decisions during reconstruction or reconstruction. The research site is the city of Mariupol, which has already suffered terrible destruction and continues to be under fire. Lewis Mumford published an enthusiastic text in *The New Yorker*: "Everyone says Rotterdam is the one city in Europe that has turned the disaster of war and occupation into a triumph. For once, everyone is right" [3]. This is a good motivation to make the city of Mariupol a world-famous city pleasant for locals and tourists. After all, due to its bad reputation and coastal location, the city will be an interesting object for tourists in the future. Also, Mariupol has a large number of architectural monuments - landmarks that are still preserved: the cultural center "Molodizhny", the Water Tower, the Kuindzhi Art Museum, the Suleiman and Roksolana Mosque and others. But, unfortunately, there are architectural monuments that will forever remain history, terrible history - the Drama Theater.

Some researchers of architectural space and urban planning in general: Christopher Alexander [4], Kevin Lynch's [5] along with Kazimierz Wejchert [6] introduced tools for analyzing the city landscape. Some of them allow to determine to what extent the transformations of the city's structural grid (urban grid) affect changes in the characteristic elements of its landscape, largely determining the uniqueness, identity or image of the city. Among these elements, landmarks are of particular importance. Kinga Rybak-Niedziółka indicates the role of markers in space [7]. The rank of two of their three categories seems to be particularly important: central tags and identifying signs. This is because most of them are also landmarks. Additionally, landmarks, in turn, co-determine both the utilitarian dimension of the city's functioning (ease of orientation, finding a way) as well as the emotional layer of the functioning of communities and individuals in the urban structure.

The method is to make a comparison and, as a result, highlight the key elements that are an integral part of the city's reconstruction. To determine and highlight methods of separate planning and ideas in the direction of the reconstruction of Mariupol based on the analysis of world experience, preserving the genius loci – the spirit of the city.

Reflecting on reconstruction goes far beyond mere physical reparation: it is a social, political and ideological process. The history of reconstruction is also a history of ideologies and historical constructions [Hassler, U. and Nerdinger, W. (eds.). 2010. *Das Prinzip Rekonstruktion* [The principle of reconstruction]. Zürich, ETH. (In German.); Eisen, M., Nerdinger, W. and Strobl, H. (eds.) 2010. *Geschichte der Rekonstruktion, Konstruktion der Geschichte* [History of reconstruction, construction of history]. Munich, Prestel (In German)]. Usually, reconstruction becomes a difficult project that requires compromises and concessions, and sometimes, on the contrary, decisive actions. Berlin from 1945 to the end of the 1940s can serve as an example of the search for a compromise. At a time when the city was split into two parts, the dilemma between the architects became a problem. But the first steps towards forming a reconstruction framework for the city took place prior to its division, when it was still under Soviet occupation. At that time, there were many temporary buildings or group-type housing for local people on the site of private houses and in the center. And in general, the Soviet occupation had a detrimental effect on the architectural reconstruction of Germany. Buildings of the "Soviet" style appeared, such as constructivism or rationalism, which did not fit into the existing remnants of the architectural environment. [2] But in a short period of time, Germany was divided into western and eastern, and after a while a wall appeared, which made a holistic approach to reconstruction impossible.

On July 27, 1950 the German Democratic Republic presented this new doctrine in the booklet *16 Grundsätze des Städtebaus* (The Sixteen Principles of Urban Planning), which outlined the orientation of reconstruction for the upcoming years. Principle 6 stated that cities have centres and that the idea and existence of such centres must be a dominant principle in the organization of the whole city [2].

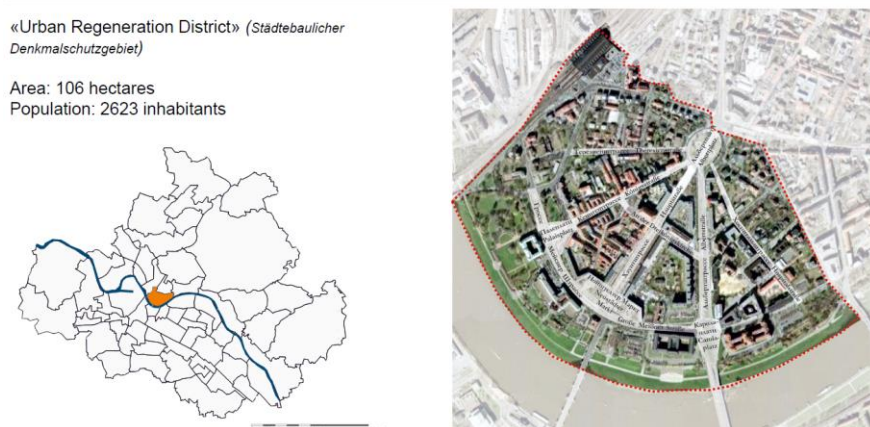


Figure 1. Innere Neustadt, Dresden. Photo A.Malko

In the case of exhibiting objects that constitute landmarks, it is important to consider their appropriate visibility in the wider context of the city and their visual connection with each other. Edward T. Hall wrote about the importance of the “radial stars” in the city map. He indicated that such systems “unite all points and functions” [8]. According to him, they also act pro-socially, unlike the Roman–Anglo-Saxon orthogonal systems, which are dissocial. This is another aspect that justifies the study of expositions along the axis of connections between landmarks.

Particularly, it is about the reliable measurement indicators of whether it was an impoverished or enriched urban layout and city identity according to K. Lynch and K. Wejchert's sets of urban landscape contents: “Man orients himself (in space) according to objects” [9]. The objects that form the basis of this orientation are outstanding buildings (landmarks) and special junction places (nodes of urban grid).

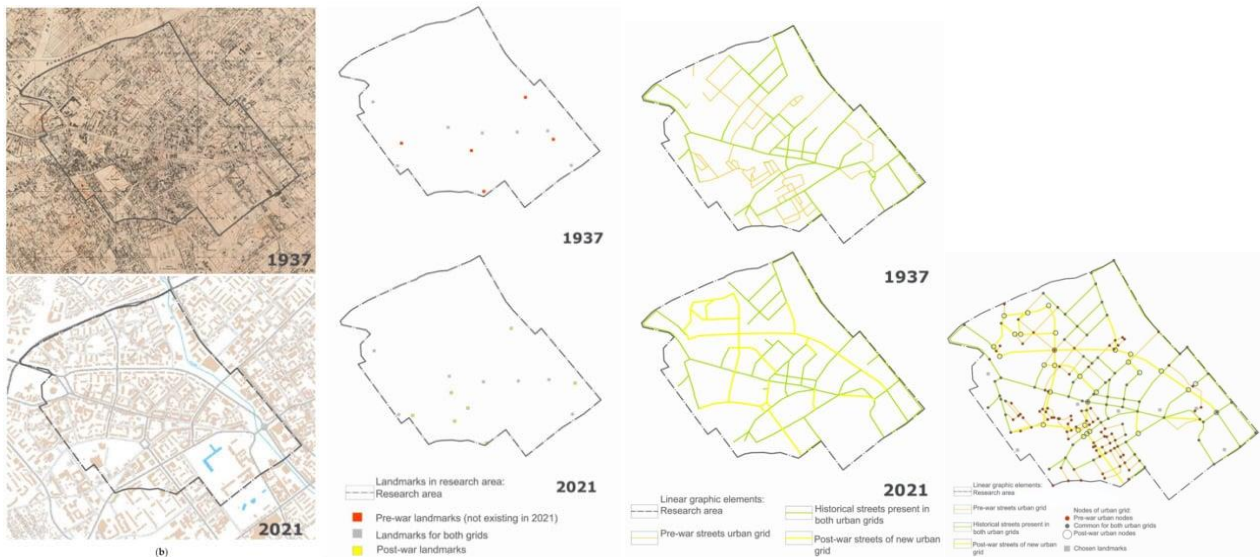


Figure 2. Street network on research area in 1937 and 2021; prepared by M. Chodorowski

M. Chodorowski in his work [1] conducted an analysis of landmarks to compare the structure of the pre-war city of Białystok and its urban flow after the war. Identical analysis is part of the work in the reconstruction of the city at any stage. Either during the complete reconstruction of the city or during its reconstruction. For example, here are some landmarks of Mariupol.

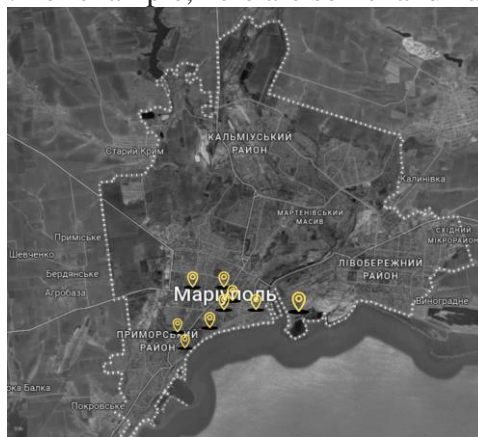


Figure 3. Mariupol's landmarks, prepared by the author

One of them is the Drama Theater, which was attacked by the Russians and then completely destroyed. When rebuilding it or building a new monument, some principles should be followed. Preservation of the historical value of the territory as much as possible. The architectural environment should match and emphasize the architectural monument. The surface area must be taken into account. The existing square around the former Drama Theater emphasized the majesty of the building, and the surrounding architectural environment emphasized the style of the building. Townscape should also emphasize landmarks. [10] All these points must be taken into account when developing a recovery plan

Conclusions and results. Reconstruction of cities that have been destroyed by war or natural disasters is a difficult task, but by choosing a comprehensive and proven approach, success can be achieved.

For Mariupol to flourish and to encourage tourists, the city should be planned based on the principles presented above. Preserving historical value and developing modern architecture. The optimal solution for the reconstruction of the city can be a radial system in certain areas, which will make the city pro-social for residents and tourists.

The existing Azov Steel plant, namely the production and industrial zone, if there is a need for it, should be moved outside the city (build a new plant), provided that it is possible. The existing plant should be left as a historical monument by fitting it into the urban environment, preserving the

genius loci. Thus, by removing the industrial area from the city, transport routes such as the freight rail road that runs along the entire coast and prevents direct access to the sea. It will be possible to develop direct pedestrian and/or vehicular routes from landmarks to the sea by building a tourist route. A big advantage of moving industry outside the city is also the pollution of water and air in the city, which will be repulsive for tourists.

Therefore, architectural landmarks are an important component of the restoration or design process. It is they who form the structure of the city, so it is important to preserve and remember their history.

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