

Streszczenie rozprawy doktorskiej p.t.

**Buildings at the turn of the 19th and 20th century in
Warsaw in the context of war and exploitation damage
- the issue of repairs and reinforcements of traditional
structures, in the light of author's research**

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Summary:

In Warsaw, a city so heavily affected by the war, any relic is the more valuable, the less frequent. And the more unique. Working with historic buildings is very demanding because each time it takes place in a unique building substance, and any wrong decision results in its irretrievable loss. Monuments are a resource that is impossible to reconstruct. In order to prevent this loss, we must identify and determine in a measurable fashion all factors that may negatively affect historic buildings. The decisions made must take into account a variety of conditions. Of course, any repair may necessitate taking into account other criteria, as well as each-time differentiation of their validity. The character of such undertaking may not be temporary, and each time any action is taken, it is necessary to be fully aware of the final objective that we intend to achieve. The basis for protection is the prevention of undesirable phenomena. However, when such do occur, it is necessary to take well-thought-out remedial actions. It is necessary to refer to written sources dealing with the construction issues of the era or expert experience acquired while working at the buildings from the same period. Knowing the history of the buildings and the technological circumstances of their erection may be related to modern undertakings or works carried out for historic buildings. Pursuant to Art. 10 of the Venetian Card it is allowed to use all modern conservation and construction techniques in order to strengthen the monument when traditional techniques turn out to be inefficient. Therefore, the considerations herein include both traditional methods and modern ways of strengthening the construction of historic buildings. Expectations of new owners and decision-makers require a new approach to protecting cultural heritage and adapting tools for planning repairs and protecting monuments to new realities. The social aspect and didactic function of monuments is increasingly important - as the awareness of local and national identity is increasing. The post-war view regarding tenement houses as an unhealthy relic of historicism or capitalism has changed. In view of the above, the necessity of a multi-criteria decision-making approach to all activities concerning historical matters is of fundamental importance. In the event of conducting any repairs, reinforcements, or implementing modifications, first of all, one should be guided by technical and historical knowledge as well as the experience of the conservation environment and one's own. Decisions taken within the field of construction activities in relation to historic buildings must be objective and restrained, free from investor and administrative pressure. Here, it is perfectly reasonable to refer to the doctors' principle: "*primum non nocere*". The

implementation of investment assumptions, often aimed at changing the way the object is used, should not affect its historical value, but expressly highlight such value in the actual state of the object and its surroundings.

The subject of the paper is to repeat, in the context of much wider than before conditions, the verification of the methods used to strengthen and repair the construction of historic architecture objects, which were the subject of previous building evaluations. Broader analysis was already started in the course of performing expert evaluations – since observed already at that stage was the problem or the actual necessity of: a holistic approach, broader examination of some constructional and material aspects (as a research imperative), etc. Therefore, the elements of evaluation were "automatically modified" and observed was the need to use research supporting analytical tools.

One of them is the conviction that when launching the plan of repairs or reinforcements in the construction of a historic building, all its elements should be considered as the entirety, inextricably connected by the dependencies, and analyzed in the light of the same conditions and limitations. Another argument is the assumption of the possibility to objectify, describe, and define the directions of corrective actions on the basis of the existing mathematical models. Presented in the paper were the selected decision-making aiding methods, and one of them named ELECTRE was presented in detail, since this method was deemed appropriate for further considerations in this dissertation. In its application, a complex case analysis of cases, i.e. buildings, was carried out in terms of determining optimal methods in the light of various engineering and conservation criteria.

The work presents a thematic scope concerning buildings subject to analysis. Discussed was their location, historical background, and their origin, as well as the issue of historical architectural and construction regulations influencing the shape of buildings and conditions, initially beyond the legislative ones, and directly affecting the urban architecture. The most popular types of structures encountered in buildings originating from the discussed time period and factors affecting them were also presented. The scope of the doctoral dissertation includes selected historic buildings erected in Warsaw in the years from 1863 to 1914. This period not only coincides with the dates of erecting the oldest and the youngest of the objects described, but is also significant from the point of view of our history, which may not be disregarded while talking about cultural heritage. The majority are multi-family residential buildings - tenement houses. All cases were examined personally by the author, as a result of which building evaluations were developed in cooperation with building experts. The each time different conditions, which sometimes evolved as the analytical work

progressed, or were imposed by the participants of the investment process, prompted the author to re-examine the cases. That process was effected considering a much larger number of criteria, and an attempt was made to compile and compare unit evaluations of repair solutions.

There were many factors behind taking up this particular subject of the doctoral thesis. Perhaps the most important of them are the author's fondness and respect for his "little homeland", once instilled in him by his loved ones.

The repercussions which affected Warsaw as a result of the uprising against the occupant in 1944 formed a reason for the conscious, planned, long-term destruction of the cultural heritage, both in material and immaterial terms, of the author's home town. However, according to the author, following the political changes of 1989, we have been to encounter the worst and most cynical plan for the degradation of the old city. The buildings that survived 70 years of consistent destruction and ignoring the pearls of pre-war architecture, are threatened by cynical destructive activities, dictated by somewhat shallow intentions of building developers. The author's professional experience has provided many examples of investors' behaviour that would focus on the location of the building plot, and not on the cultural context and values carried by the objects located thereon.

Keywords: analytical tools, historical objects, decision-making support methods, reinforcement methods