

REUSE OF INDUSTRIAL HERITAGE: WHY AND HOW IN TETOVO

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Abstract

The growing interest in reusing abandoned industrial landscapes creates a possibility to revitalize former spaces by giving them a new life. With the swift transformation of society and its needs, new and creative methods will be required to coincide with the new needs, and using formal industrial sites gives us a sustainable strategy to meet those needs.

A great area of Tetovo's landscape is made of unused industrial landscapes. This paper is going to explore and identify the possible industrial sites of the city that have historical, architectural, and cultural values, analyze, and then result in a set of principles and examples of how the chosen post-industrial landscapes can be reclaimed and reused.

This paper represents a research project that aims to describe how this approach to Tetovo's industrial heritage is going to benefit the city and the possible public functions these buildings could accommodate.

Keywords: Industrial heritage, Tetovo, Industrial landscape, post-industrial landscape, reclaimed, reused.

1 Introduction

"Cities are by far humanity's largest creations" [1]; this means that they are the main reason for us to live a good life and function in the most valuable way, so our purpose as humans should be to keep them in good condition and to contribute to a better development while not allowing any part of it to be destroyed. The growing interest in reusing abandoned industrial spaces and complexes creates an opportunity to revitalize not functional spaces by giving them a new life.

The world-changing industrial revolution arrived late in North Macedonia. Industries began growing just after Ottoman rule ended and the Yugoslavian state was created. The privatization of industries began with the fall of Yugoslavia in the 1990s and the restructuring of the system. Industries in North Macedonia faced significant financial losses, and many of them were forced to shut down. The industrialization of the city resulted in a significant increase in population, especially between 1960 and 1980. As a result, Tetovo became one of the most important cities in North Macedonia. The photos belong to some of the largest industries in the city, Teteks Factory, SikJelak, and Medicinal Plastics.



Figure 1. SikJelak in its current state, completely closed to the public

Figure 2. Teteks

The author of paper [2] analyzes the industrial heritage of the Arade River region in Portugal; similarly, in this paper, we investigate the industrial heritage of Tetovo, North Macedonia. The question is why and how we will do it. Our work explores and identifies potential industrial sites of the city that have

historical, architectural, and cultural value, analyzes, and then results in a set of principles and examples of how selected post-industrial spaces can be reclaimed and reused.

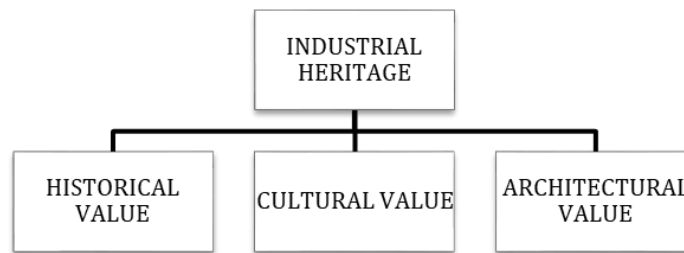


Figure 3. Values of Industrial Heritage that were used to classify the industrial heritage in Tetovo

2 WHY – Industrial heritage in North Macedonia, specifically in Tetovo

The industrial revolution that changed the world completely came very late in North Macedonia. It was at the end of Ottoman rule and the formation of the Yugoslavian state that industries started to flourish. The Yugoslavian government invested in the light industry in North Macedonia, and food, textile, and cigarette factories were founded. Tetovo became home to the textile factory “Teteks”, the cigarette factory “Makedonija Tutun” and the wood factory “SikJelak” as major industries near the city. As we can see in this figure a large area of the Tetovo landscape consists of unused industrial complexes.



Figure 4. Google Earth screenshot, highlighting the largest industrial complexes

The significance of the industry highlighted in the paper “Industrial Heritage: The past in the future of the city [2], the rapid dynamism of the construction of industrial buildings in the twentieth century, and the transformation that this brought to the existing landscape analyzed in the Arade River region in Portugal is like what happened in North Macedonia.

The city's industrialization resulted in a significant increase in population, particularly between 1960 and 1980. As a result, Tetovo grew to become one of the most important cities in North Macedonia. During this time, many public buildings were built, including the Theater, the Hospital, the City Shopping Center, and some residential buildings with small commercial spaces, making the city even more appealing to new residents who would migrate there. This trend of population migration to the city can still be seen today.

However, after the fall of the Yugoslavian state, these industries suffered a major crisis, and most were shut down. Only the "Teteks" factory continued to operate, with a minimum capacity.

With the growth of the population and their migration from the villages around, the city underwent an expansion. The road that was once industrial has now become part of the city network. The industries that run along the city's eastern outskirts are gradually getting integrated into the city's urban network, particularly close to the new urban blocks that are being erected in this area.

With the city's territorial expansion, these formal industrial spaces occupy a very convenient position in the new neighborhoods that are being built, and they can be converted into public areas that serve the citizens. These now obsolete industrial complexes occupy a large part of the city's area and have become an important part of the city's collective identity.



Figure 5. Distance of former industrial buildings from the city center (900m to 1500m maximum)

Industrial heritage sites are an important part of our built environment and landscape. They provide tangible and intangible links to our past and have a great potential to play significant roles in the future of our cities, towns, and rural environment [3].

The city's transformation, expansion, and rapid population growth resulted in massive residential building construction, a development that was out of sync with new needs, and social and spatial problems. As a result of all of this, the city presently appears to lack common public spaces.

Today, Tetovo has a population of approximately 85 000 inhabitants and is home to two universities, but it lacks the necessary public spaces a city must-have. Only a small percentage of the city's area is dedicated to parks and recreational spaces; there is no city park, cinema, or other appealing and necessary spaces for citizens to live a normal and healthy life. The city's industrial spaces are mostly complexes composed of various structures of different sizes and shapes. Keeping this in mind, hybrid and multifunctional complexes can be created by deploying various attractive functions divided into spaces of varying capacities and sizes.



Figure 6. SikJelak factory, Tetovo

Creating integrated buildings, or hybrids is a necessary need for modern society because they reflect the needs and new "human adventures" of modern man, who is constantly adapting or changing. By reviving these buildings, we create active spaces that attract citizens, spaces for new businesses and jobs, increase the economy, and spaces for people to interact, gather, and socialize. Because of their unique construction elements and the space, they occupy, they enable the creation of multifunctional, flexible, and mixed-use spaces. It is a missed opportunity and a waste of resources to not use these vast areas of industrial landscapes in Tetovo.



Figure 7. Medical Plastic Factory, Tetovo

Yugoslavia was a powerful and prosperous country at the time these facilities were built. All the major state and public buildings built during this time period belong to modernist architecture and have a prominent brutalist style. This quality and economic power can also be seen in industrial buildings, which are constructed of materials such as steel and concrete for the main structure and brick and raw concrete for the building envelope.

Because of the high quality of these materials, most of the buildings in these complexes are in good condition, particularly the administrative buildings of these factories, which still dominate the city

architecture with their elegance and style today. In terms of economics, considering the industrial areas and financial investments that would be required if they were completely demolished, the most rational and reasonable solution is to give them new functions and adapt them using the existing structures and spaces.

3 HOW – Identifying and setting principles and possible functions

Adaptive reuse gives new life to a site, rather than seeking to freeze it at a particular moment in time, it explores the options that lie between the extremes of demolition or turning a site into a museum. Adding a new layer without erasing earlier layers, an adaptive reuse project becomes part of the long history of the site. It is another stage, not the final outcome [4].

As we mentioned earlier in this paper, with the change in the system in North Macedonia, the industry was transferred to private management, and as a result, we still have industrial complexes that undergo permanent devastation. Today, they represent complexes without a clear destination or primary activity. On the other hand, their non-participation in urban life destroys them inside and out, resulting in a pile of waste materials that is unappealing in the eyes of the citizens. As suggested in the paper "Industrial Heritage: The Past in the Future of the City [2], industrial landscapes in Tetovo have been analyzed using a holistic approach, ecological reality as a physical and biological part of the ecosystem, historical-cultural reality as an element that connects people with their place and history, and socio-economic reality as a factor that contributes to improving community life quality.

Based on the analysis and information gathered, we developed a set of principles to guide the selection of potential new functions. We conclude that these principles would assist in fully utilizing all of these complexes to their full capacity.

These principles are as follows accessibility, reference point, multifunctional public space, flexibility, involvement of stakeholders and users (Placemaking), and preservation of the memory of the place.

Accessibility is strongly linked to the inclusion and promotion of continuity of public spaces and street fronts in these industrial complexes, making them more accessible and welcoming to the public and citizens. Regardless of the narrow interest of individuals or interest groups, citizens have the right to see or experience industrial complexes as integrated within cities or urban blocks.



Figure 8. Self-elaborated drawings, SikJelak Factory, what happens if people access these spaces

Taking into consideration the characteristics of each building, as well as the location and specific context of the industrial complexes, an effort is needed to reinforce the sense of place and highlight the main features by transforming these areas into city landmarks.

The creation of integrated buildings, hybrids, is an essential need for modern society because they reflect the new needs of modern man, who is constantly adapting or changing.

Jan Gehl states that a set of smaller features is more likely to generate an energetic, mixed audience than one large feature [5].

The large areas occupied by these buildings allow the organization of various functions within a complex, making these spaces appealing to a wider and more diverse public.

It is important to encourage the creation of spaces that are adaptable and flexible to the demands of a continuously changing society, as well as technological and economic development. In photos 5 and 6 you can see the perspective view of the interior space of the industrial complex "SikJelak", including the different purposes that can be given to it.

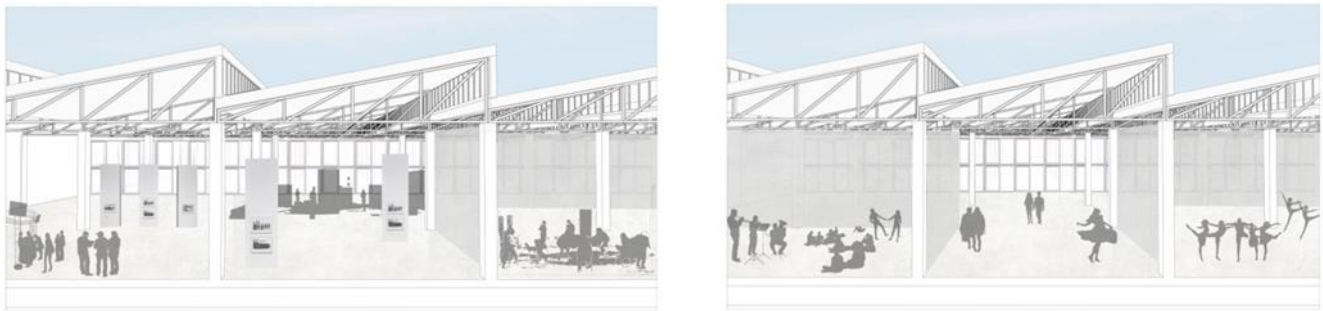


Figure 9. Self-elaborated drawings, Interior space of the industrial complex "SikJelak"

To strengthen the connection between people and the places they use, it is essential to also include the users and stakeholders in the process of creating and developing innovative new public spaces. One of the main reasons for the reuse of spaces and industrial complexes is not only the history they represent, the layers of different times, but also the memories of the citizens who carry them, whose lives have been closely engaged with those buildings that have been part of their daily routine. The reuse of these facilities, giving them back their soul, allows us to respect the memories of the people, returning them to time but with new functions.



Figure 10. The factory "Teteks", Tetovo

4 Offering solutions for possible new functions

In this section, we present the possible new functions that we identified because of our analyses of Tetovo's industrial heritage, its position in the city, the surrounding buildings, and functions that are

needed to improve the life quality. As shown in Figures 11 and 12, we split the functions into two categories: outdoor and indoor public spaces, which are both functions that our city and we desperately need. Rather than creating new facilities, we aim to reuse existing spaces that may be converted into spaces with various activities. Our entire city may even be reborn if we add these functions to abandoned facilities.

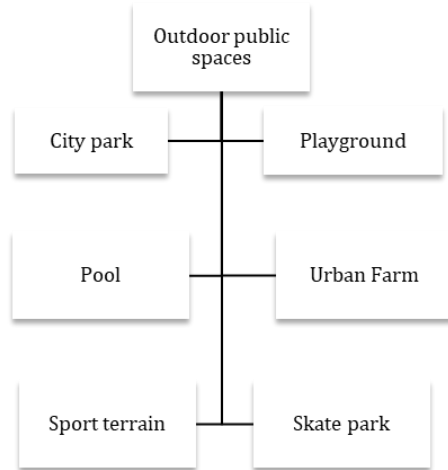


Figure 11. Outdoor Public Spaces

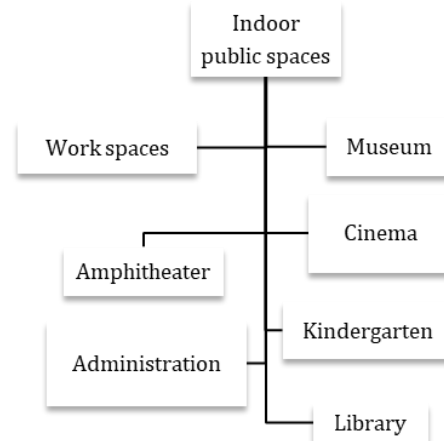


Figure 12. Indoor Public Spaces

Conclusion

We chose to analyze the industrial heritage in this paper by explaining why this is an issue and how we can help bring these spaces to life by creating principles that lead us to the conclusion of some possible functions that provide us with solutions within these spaces. We realized that these sites represent some of the city's most important attractions and that reusing them could improve the quality of life.

For the mentioned reasons above, we think that these buildings could return to life in one way or another, permitting them to live with us by giving life, and allowing people and industrial spaces to interact. The concept is simple: we need them, but they also need us, so we must go beyond the concrete and steel cemetery to give them life and a new dimension so that they could serve us and our country. And, as Dolores Hayden (2000) has written:

“Cultural landscapes [including industrial ones] tell us who we are, far more effectively than most architecture or exhibits in museums ever can”.

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