

Monographic Publication of ICOMOS Slovenia

# Protection and Reuse of Industrial Heritage: Dilemmas, Problems, Examples

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**Protection and Reuse of Industrial Heritage:  
Dilemmas, Problems, Examples**

edited by Sonja Ifko and Marko Stokin

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## Editorial

It gives us a great pleasure to present the second edition of our publication of ICOMOS Slovenia with selected articles they were presented at the 2th International Symposium on Cultural Heritage and Legal Issues, Protection and reuse of industrial heritage: Dilemmas, Problems, Examples, in Bled between the 1st and 3th October 2015.

The Council of Europe's early positions towards industrial heritage were a reaction to the consequences of the industrial decline in western Europe, and the principles were further developed in Recommendations of the Committee of Ministers of the Council of Europe in 1987 and 1990 [R(87)24 and R(90)20]. In 2013, the Parliamentary Assembly of the Council of Europe adopted the Resolution 1924 (2013) on Industrial Heritage in Europe, which draws attention to the most recent issues relevant for the integrated conservation, intelligent rehabilitation and sustainable revitalisation of industrial heritage sites and landscapes of Europe. One should also mention the constant alerts coming from the side of the Congress of Local and Regional Authorities of Europe to strengthen the local authorities' role in the preservation of industrial heritage "in situ". Lately, the initiative about European Industrial and Technical Heritage to be used as one of the central themes of European Heritage Days 2015 was put forward and actually implemented in many European countries. On the other side, ICOMOS Slovenia as an active member of ICOMOS International and ICOMOS Europe has dedicated an important part of its efforts towards international cooperation and pooling forces in the field of industrial heritage protection. Joining forces with the Council of Europe build synergies in following-up the Council of Europe conventions with revisiting these references and taking stock of the new challenges and issues at stake. Our common goal is to integrate innovative ideas, define new positions and open new perspectives with the aim to give this important dimension of our common heritage of Europe the role it deserves in the future multilateral and trans-frontier co-operation.

The present publication brings eleven new articles from different countries, especially focused on south-east Europe industrial heritage, were after the fall of Yugoslavia the new economic order led the collapse of many industrial factories and towns from socialist period and they are now in the process of decline. The nature of economic and political circumstances in south-east Europe are constantly and increasingly challenging the survival of industrial heritage - even "listed" monuments. Public interest is not always sufficiently expressed in decision-making process. The same is true about expectations of heritage communities associated with industrial heritage which still have little means of being expressed and taken on board. There has been an increasing trend of exploitation industrial heritage from which the traditional professional institutions are excluded because they are self-limited to their classical "protection" role instead of developing management approach. The fact is that changes affecting industrial heritage and its role in society require new responses and innovative solutions.

Sonja Ifko, Marko Stokin

## Review

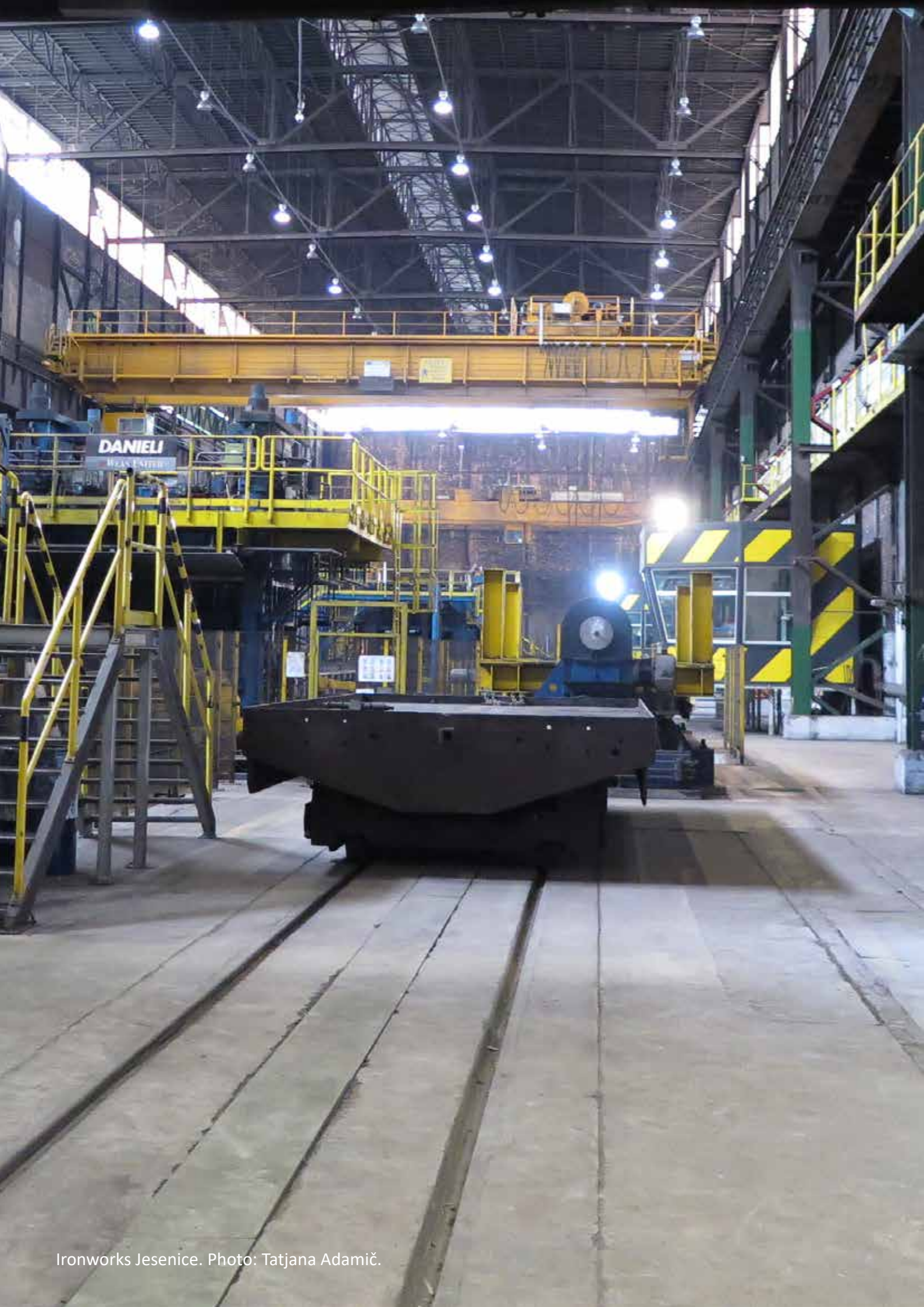
The book 'Protection and reuse of industrial heritage: Dilemmas, problems, examples' raises one of the most significant questions of heritage protection that came into the international public eye at the turn of the 20th and 21st centuries. In this period, many international organisations and bodies involved in heritage management have been engaged in various aspects of industrial heritage. Since UNESCO and Council of Europe are the most prominent international governmental organisations, the publication attempts to put stock in standards developed in the framework of UNESCO World Heritage Programme and Council of Europe's activities and confronts them with efforts of major universal non-governmental organisations, such as ICOMOS and TICCIH. The aim of giving an overview of international standards is itself worthy. The book combines them with a selection of analytical articles about the state of statutory protection, public perception, conservation and reuse by analysing cases from Western and South-Eastern Europe. The state-of-the-art comparison between the situation in both groups of countries shows that the South-Eastern countries lag behind the Western ones in every aspect of industrial heritage protection but the academic historical knowledge, the efforts of museum and conservation service experts and civil society activities, mainly organised at local levels.

The articles collected in the publication offer over 140 pages of intensive reading of well-documented overview of the industrial heritage history in selected countries, discuss problems and to some extent also exemplify good practice. The authors are renowned authorities in the field of industrial heritage research and the topics of their presentations cover well the purpose of the book. There are some discrepancies in technical format of individual articles, one could also come across some translation insufficiencies but such minor imperfections cannot override the prevailing positive impression.

The overall evaluation of the publication could be summed up as follows: it is of great value for readers interested in the issues of industrial heritage and also for heritage experts in general. One could only hope that the message of the book reaches decision makers, as well. The tone of some articles is somehow pessimistic but on the other hand authors share the conviction that education, awareness-raising and international cooperation can make headway in improving the situation.

Dr. Jelka Pirkovič





Ironworks Jesenice. Photo: Tatjana Adamič.

## Post-industrial Montenegro: Potentials of Industrial Heritage

### Summary

*This paper offers an overview of the present development scenarios of a certain number of industrial facilities and complexes in Montenegro after, more or less economically successful, privatization processes. The offered typology recognizes five different scenarios of the further development of these areas and facilities in the first two decades of the 21st century: from the industrial zones which have continued with the earlier production processes, however, in most cases in the reduced volume (Steel Factory in Niksic, KAP in Podgorica), through the zones for which there are planned multi-layer revitalization programmes ("New Obod" in Cetinje, 140ha) and those with the completely new urban amenities in place ("Porto Montenegro" in Tivat, 30ha); to rare, historically-architecturally valuable examples of industrial architecture which still await an adequate type of reconstruction and conversion ("Rivijera" in Kotor). These examples show that the industrial heritage potentials are great but also that, due to the lack of valorization and appropriate protective measures, they have mainly received negative treatment and have been partly devastated in the privatization process.*

### 1 Introduction

Before World War II, Montenegro had been an industrially underdeveloped area (in 1939, there were only 24 industrial businesses and craftsmen's workshops employing 1,355 workers)<sup>1</sup>, and very few of the modest number of industrial facilities have been preserved, so the major portion of industrial heritage mainly dates back from the period following World War II, being related to the SFRY development strategy of the time<sup>2</sup>, where industrialization and electrification were defined as "main postulates of development of socialism"<sup>3</sup>. Through the industrialization of Montenegro within SFRY, in the period following World War II, industry became the leading branch of economy. Development of industry from 1947 to 1989 provided for a considerable growth of production that increased by 79 times, and was, at certain intervals, the largest one in Yugoslavia at the time.<sup>4</sup>The share of industry in the gross domestic product amounted to only 5% in 1947, where in 1990, it increased to 35%. In the period 1956-1989, Montenegro was an area with intensive industrialization, when the number of companies increased from 58 to 169, and the number of employees from 7,000 to 57,000.

Abrupt industrialization of SR Montenegro at the time was followed by the "explosive growth of tourist industry, high-rise development of education system, health care and

1 "While in the period 1947-1990, industrial production in Yugoslavia increased by 27 times, the corresponding increase in Montenegro was by 123 times, or 11.6% per year." In Rastoder, Š. "Nastanak i "nestanak" radničke klase", Retrieved February 29, 2012, from [http://www.vijesti.me/kolumne/nastanak\\_nestanak-radnicke-klase-kolumna-62729](http://www.vijesti.me/kolumne/nastanak_nestanak-radnicke-klase-kolumna-62729)

2 Industry became the leading branch of economy, with an increase in production from 1946 to 1985 by around 30 times and a rise in overall social product by around 10 times, while the share of industry in the social product in 1952 amounted to 22%, and in 1984, it was 42%. Production of steel increased by 12, and of rolled metals by around 15 times. Both by the volume and structure of industrial production, Yugoslavia made it to the group of the so-called newly-industrialized countries with dynamic industrial development, the growth rates of which, at certain periods, were among the highest ones worldwide. In 1974, Yugoslav industry employed 1 800 000 workers, or 8.3 workers per 100 population, getting closer to developed European industries. In Petranović, B. (1988). Istorija Jugoslavije 1918-1988: Socijalistička Jugoslavija 1945-1988, knjiga 3 (pp. 418 - 421). Beograd: Nolit.

3 Radojičić, B. & Čavor, V. (Eds.). (2003). Crna Gora: opšta monografija, (p. 77). Beograd, Podgorica.

4 Ibid.

other business activities<sup>5</sup>, which was strongly reflected in fast changes to the forms and structures of cities and urban areas, as well as in the change to the demographic and economic structure of population of Montenegro.<sup>6</sup> There was a growth of overall population in Montenegrin cities (until 1981, the growth reached 268.6% (compared to 1953)<sup>7</sup>, “mostly through rural-urban migration flows<sup>8</sup>”.

All Montenegrin cities were, to a smaller or a greater extent, driven to develop in particular by some form of industry. Among the cities that were predominantly industry-oriented, the most prominent ones included Niksic, Titograd (Podgorica) and Cetinje in the central region of the country, Pljevlja and Ivangrad (Berane) in the North (closely followed also by Mojkovac, Bijelo Polje and Plužine), and Tivat, Bar, Ulcinj, Kotor in the South of Montenegro.

## 2 Typology of industrial heritage in Montenegro – typical post-industrial scenarios

The 1990s brought significant changes in the Balkans. War conflicts and dissolution of SFRY resulted in overall social and spatial devastation in nearly all parts of former Yugoslavia, followed by the process of privatisation in the newly formed states. This was primarily reflected in industry, as the fundamental branch of economy in the former joint country, and production processes having been temporarily or, more often, permanently blocked, which soon caused industrial buildings and complexes to become “spaces without contents”, as well as a new form of built heritage. On the other hand, the shift of the epicentre of global industries from the West to the East also caused, globally now, the phenomenon of the so-called “post-industrial” cities, which added further interest to topic of abandoned industrial zones and prospective scenarios for changing their purpose.

When considering the industrial heritage in the territory of Montenegro, as an economic, social and spatial phenomenon, one could note several topical scenarios for further development of those spaces:

- **Continuity of industrial use** – industrial structures or complexes still in operation;
- **“Fragmented” industry** – industrial complexes that are, mainly in part, still operational, but through some forms of small-scale business and manufacturing activities;
- **Conversion of purpose** – industrial facilities that predominantly changed their original purpose through a process of adaptation or some form of reconstruction;
- **Urban re-development** – complete disappearance of industrial complexes and structures and formation of a new urban matrix, most frequently for residential or tourist purposes;
- **“On-hold” spaces** – industrial facilities which, given their historical-architectonic values, still await adequate reconstruction and change in use.

### 2.1 Continuity of industrial use – industrial structures or complexes still in operation

The most significant industrial complexes in the territory of Montenegro, such as, for example, “Boris Kidrič” Ironworks, Niksic (construction period 1951-1962), or the Aluminum Plant (KAP), Podgorica (construction period 1968-1971), underwent privatisation at the

5 Bakić, R. (2009). Kretanje gradskog stanovništva Crne Gore u toku druge polovine XX vijeka i njegova bitna migraciona obilježja na početku trećeg milenijuma. In Vlahović, P. (Ed.). Etnologija grada u Crnoj Gori, radovi sa okruglog stola (pp. 81- 82). Podgorica: CANU.

6 In 1948, there were 80,369 or 21.3 % of urban population in Montenegro and only one city with the population exceeding 10,000 (Podgorica -14,369 population), Ibid.

7 According to the censuses, the coefficients of urban development of Montenegro were, respectively: 1953 – 15.4%, 1961 – 21.5% and 1971 – 34.23%. Kostić, M. (2009). Obilježja dugoročnog kretanja gradskog stanovništva i standarda u urbanim sredinama Crne Gore. In Vlahović, P. (Ed.). Etnologija grada u Crnoj Gori, radovi sa okruglog stola (pp. 23 - 29). Podgorica: CANU.

8 Enlargement of certain Montenegrin cities in the period following World War II: Kolašin – 19.3 %; Kotor – 69.1%; Mojkovac - 48%; Niksic – enlarged by 69.8%; Podgorica – 74.8%. Vlahović, P. (2009). Grad u Crnoj Gori i njegov etnološki značaj. In Vlahović, P. (Ed.). Etnologija grada u Crnoj Gori, radovi sa okruglog stola (p. 18). Podgorica: CANU.

beginning of the 3rd millenium, and continued operating with decreased production within the new ownership structure.<sup>9</sup> The most notable example of continuation of industrial activities is Niksic in particular, the second largest city in Montenegro, a former industrial centre of Montenegro (also known as “the city of industry, steel and beer”). Its accelerated economic and urban development in the period following World War II, “at such a fast rate seen only in very few cities in Yugoslavia”<sup>10</sup>. Niksic owed to an abrupt development of industry – first, to begin with, there was bauxite production (1948)<sup>11</sup>, then the “Boris Kidrič” Ironworks was built<sup>12</sup>, being the largest industrial giant in Montenegro that employed around 7,500 workers<sup>13</sup>, whereas the first Montenegrin brewery, “Onogost”, built far back in 1895 (one of the rare forms of industry from the late 19th century in Montenegro), was reconstructed in 1946 as the “Trebjesa” Brewery.<sup>14</sup> All these industrial complexes have been privatised (some of them even more than once) and continued operating, but with constant financial problems, significantly decreased volume of production and reduced number of employees, employing even several times less workers than they used to. Continuation of industrial production exists also in other cities of Montenegro, most frequently so when it comes to some smaller forms of industry, such as, for example, “Industry of Bearings Kotor”, which was relocated after the earthquake in 1979 from the seaside, core city zone of Kotor (Skaljari) to the newly formed industrial zone in Grbalj, and later continued with production, having undergone the process of privatisation, under the new name (Japanese company “Daido Metal”)<sup>15</sup>. In general, however, examples of industrial companies that succesfully continued operating through the process of privatisation are rare and predominantly reduced to exceptions.

## 2.2 “Fragmented” industry - industrial complexes that are, mainly in part, still operational, but through some forms of small-scale business and manufacturing activities

The original activities/contents/purposes of abandoned industrial zones that have not been, or have been privatised only in part, become a distant memory, while the “empty” space, but supplied with infrastructure, actually constitutes a significant spatial and economic potential. For the aforesaid reasons, now mainly “fragmented spaces” continue to operate as “fragments”. Thus, spaces with smaller areas and volumes, arisen from the division of industrial halls or complexes (respective structures or entire zones), are mostly rented for private business activities that such spaces are suitable for. Those are mainly smaller manufacturing and craftsmens’ workshops, printing offices, companies for manufacturing and selling construction materials, various storage spaces and the like. The best example of this model operating is the factory complex “Titex” in Podgorica, which accomodates several different forms of business activities.<sup>16</sup>

This scenario for the “fragmentation of former industrial spaces” has also been designed as a special urban development and planning “model” used to form the so-called “business

9 The current owner of the ironworks in Niksic is Turkish company „Toščelik“. Retrieved June 08, 2016, from <http://www.vijesti.me/ekonomija/nova-sansa-za-nekadasnjeg-giganta-zeljezara-postala-toscelik-niksic-77805>. Russian company CEAC owned KAP, Podgorica, from 2005 to 2014, when it was sold to the “Uniprom” company, Niksic. Retrieved June 08, 2016, from <http://www.mans.co.me/podgorica/>

10 Bulajić, Ž. (1972). *Moderne osnove Nikšića*. In Kalezić, D., Bošković, M. et al. (Eds.). Nikšić, (p. 130). Zagreb: Grafički zavod Hrvatske. Beograd: Monos.

11 „Bauxite mines Niksic, one of the largest companies for the production of red bauxites in Europe, founded on 24 September 1948“. Ibid, p. 44.

12 „... based on a decision of FPRY dated 16 December 1950, the Ironworks in Niksic was founded as a state-owned business organization of general importance. Its construction started in Rudo Polje, 1951, and lasted for a whole decade.“. Ibid, p. 45.

13 Kalezić, D., Bošković, M. et al. (Eds.). (1972). Nikšić. Zagreb: Grafički zavod Hrvatske, Beograd: Monos.

14 The “Trebjesa” brewery is the first privatized company in the territory of Montenegro (1996), constituting today, having had two previous owners, a part of a Canadian-American company “Molson Coors Brewing Company”. Retrieved June 08, 2016, from <http://www.vijesti.me/ekonomija/kanadski-molson-coors-novi-vlasnik-pivare-trebjesa-67663>

15 Retrieved June 08, 2016, from <http://mans.co.me/niksic/>

16 Company “Titex” was founded in 1978 through a merger of the company “Pamučni kombinat” (1963) and company “Trikotaža” (1964). Today, a part of the shares is owned by the Investment Fund “Trend” ad. Podgorica.

incubators” zone, and applicable in particular to the former industrial zones in the cities of Northern Montenegro, where, due to the lack of interest and major investments, the total and swift change of purpose of the overall space is not possible. In that respect, a particularly interesting example is the large industrial zone in Berane, for which an adequate planning documents have been designed and the related works are in progress.

Berane (former Ivangrad)<sup>17</sup>, little town in North-East of Montenegro, also started developing after World War II, mainly in the Northern zone of the City, called Rudes, between the rivers of Lim and Budimska. First, the brick and tile factory “Rudeš” was built in Budimlje, 1946, then plant timber industry “Lim”, 1954, followed by plywood factory (1960) and leather factory “Polimka”, 1962, in Rudes.<sup>18</sup> In the period from 1959 to 1964, the largest industrial giant in Berane was built, too - pulp and paper sulphate factory “Ivangrad”, for the construction of which more than 22 billions of then dinars were spent; design documents were developed in several cities of former SFRY - Zagreb (“Plan”, “Energoprojekt”), Ljubljana (“Industrial Biro”) and Belgrade (“Morava”), while contractors were KMG “Trudbenik” from Belgrade and GP “Crna Gora” from Niksic.<sup>19</sup> During late 1960s, the industrial zone in Berane was fully defined, and it is notable that it constituted between one fourth and one fifth of the overall area of the City of Berane at the time.<sup>20</sup>

With constant problems mostly relating to insufficiently trained labour, as well as difficult transport of final products (rail infrastructure was planned, but never built), pulp and paper sulphate factory “Ivangrad” used to manufacture, all through to mid-1980s, even up to 30,000 tons of pulp and paper sulphate per year and employed between 1,300 and 1,800 workers.<sup>21</sup> During 1980s, a group of specialists from the Institute of Socioeconomic Research and Faculty of Economics in Podgorica conducted an analysis of the factory’s business operations, which showed that the company was suffering losses, but also indicated serious environmental problems (exhaust flow of hazardous substances into the river of Lim, general pollution of air, land and underground waters, etc.), so that the factory was closed in 1989.<sup>22</sup> Neither the attempt to renew production in the period from 1996 to 2004, under modified conditions and with several times less number of workers (only 250 employees), did produce positive results. The main part of the factory was eventually privatised in 2004 and some form of production existed all through to 2010, when the factory was shut down completely. Today, the only facilities of the old industrial production still operating in the overall industrial zone of Berane are the plywood factory and brown coal mine.<sup>23</sup>

In the new millennium, the industrial zone in Rudes started to embrace, spontaneously and without planning, new “semi – urban” facilities needed for a developing town, such as discoteques, concerts, motorcycle races, etc. In addition, along the rim of the zone, in the riverbank area of Lim, a small residential settlement “Riverside” was also built in 2001, consisting of 26 smaller structures for displaced Roma people from Kosovo, with financial support of the international organisation “World Vision” (WV). A more serious attempt to revitalise the industrial zone is based, however, on the development strategy defined by the local self-government, primarily through the design of adequate planning documents - Local Study of Location (LSL) - “Business Zone”, 2013-14, for the area of 16.6 ha, with the idea of forming the so-called zone of “business incubators”.<sup>24</sup> This planning document envisages “re-parceling” (fragmentation) of land, i.e. formation of smaller lots, resulting in the establishment of a new, “fragmented” urban matrix relying on the existing infrastructural network. The plan encompasses 19 industrial structures, of which seven are envisaged to

17 Berane had changed its name to Ivangrad after Ivan Milutinovic, a national hero, on Liberation Day, 21 July 1949, whereas in 1992, the old pre-war name of the City was restored.

18 (1967). pp. 29 – 35. (old materials, no information about editors, authors, publishers)

19 “... and for the construction of apartments one billion and 92 million old dinars.” Ibid.

20 Radović, M., Bakić, R. et al. (Eds.). (2012). Berane, opšta monografija: povodom 150-te godišnjice Berana. (pp. 323 – 339). Berane.

21 Ibid, 327.

22 Ibid, 329.

23 The exploitation of brown coal ore was started by Austrians in 1917. The brown coal mine in Budimlja was also privatized several times, the last one being in 2014.

24 Planning documents designed by RZUP – Republic Bureau of Town Planning and Designing ad., Podgorica.

be used again, and 12 to be demolished (due to extremely bad condition of the facilities). Newly formed lots vary in area, depending on the existing facilities and infrastructure (the total of 43 lots, the area ranging from 900 m<sup>2</sup> to 6,450 m<sup>2</sup>), where it is possible to build structures for business purposes only (basic purpose)<sup>25</sup>, the floors including basement, higher ground floor, first floor (maximum height up to 12m). (Figure 1)



**Fig. 1:** “Re-parceling” and formation of new urban matrix with “Business incubators”. (Local Study of Location (LSL) “Business Zone”, 2013/2014, retrieved from Republic Bureau of Town Planning and Designing ad., Podgorica; Photo by B. Lutovac).

### 2.3 Conversion of purpose – industrial facilities that predominantly changed their original purpose through a process of adaptation or some form of reconstruction

This scenario can be noted at the level of individual facilities (the small-scale revitalization) – the example of conversion of the old grain silo in Niksic; as well as on the level of bigger industrial complexes (the big-scale revitalization) – the example of the town Cetinje which, as the old royal capital and a cultural center, undergoes an intensive process of general revitalization, among other things through the conversion of former industrial complexes (the Old and the New Obod).

The old silo in Niksic, constructed in 1935 for grain storage of the then agricultural cooperative (probably also used for the warehousing needs of the railway station of that time), represented one of the rare preserved facilities of the industrial architecture from the period between the two world wars.<sup>26</sup> After years of non-usage, the silo was converted into a space for commercial use (a hypermarket with the accompanying services)<sup>27</sup>, and a simple cubic form of the silo, one of the verticals of the city landscape of harmonious proportions, has obtained a new “brand envelope”. The unobtrusive grey colour of the ferro-concrete has been replaced by a coating of the aluminium panel in bright red colour, which is the “brand colour” of the owner’s company. The potential of the modernistic marking of the silo as the “town’s symbol” (followed by a five-pointed star and a simple signboard in

<sup>25</sup> The so-called complementary purpose is also possible (commercial and catering facilities, accommodation and healthcare structures, kindergarten, etc, but in accordance with their basic purpose only). In addition, administrative spaces can occupy up to 30% of the total area of the facility. Retrieved from LSL „Bussines Zona“, part “Smjernice za izdavanje urbanističko-tehničkih uslova”, (p. 26). RZUP – Republic Bureau of Town Planning and Designing ad., Podgorica

<sup>26</sup> Stamatović Vučković, S.; Kujundžić, K.; Bojković V. (2012). Valorization and revitalization potentials of the industrial buildings in Montenegro. In III Conference Industrial Heritage – Problems and Opportunities of Integrative Protection, Presentation and Revitalization, Belgrade, November, 2012. Marković, S.D. (Ed.) Belgrade: Institute for Protection of Cultural Heritage of Belgrade, CD - ROM.

<sup>27</sup> The facilities have been purchased by a successful domestic company “Voli” d.o.o. from Podgorica.

cyrillic “СИЛОС”), unfortunately, has not been made use of. Instead, it was replaced by decadent uniform materials which bear no meaning. The new, “brand red” vertical in the town landscape successfully “competes” with the dome and the bell tower of the church dedicated to Saint Basil of Ostrog, which is in its close vicinity. Despite the fact that this example might be characterized as „a successful business investment“ in the architectonic-spatial planning sense, especially at the level of the town landscape, the new look of the silo has actually devastated the urban space of the town. (Figure 2)



**Fig. 2:** The old silo in Niksic, 1935 – The new envelope and unsuccessful “rebranding” of the town landscape (Left photo by Enciklopedija Jugoslavije, tom 2. (1956), Zagreb: Leksikografski zavod FNRJ, p. 462; Right photo retrieved June 10, 2016, from <http://www.ramel.me/page.php?cat=5>).

Following the recognition of Montenegrin independence at the Berlin Congress in 1878, Cetinje became the capital of the newly-formed state and started a fast development. However, after WWII Cetinje lost the role and the importance as a political and cultural center of the Montenegrin state (it stopped being a royal capital). Instead, the seat of the republic and a cultural and administrative center was moved to Titograd (today’s Podgorica). This change led to slowed activities of economic entities and social trends and it caused a “serious crisis of the town’s general development”<sup>28</sup>. Furthermore, with an almost forceful introduction of industry as the basic economic activity, the cultural-tourism potentials of the town and its environment were completely neglected. Only at the beginning of the 80-ies of the 20th century did Cetinje start its economic recovery. However, this period was short lived due to the situation in the region and disintegration of the SFRY.

The most significant economic facilities in Cetinje were: the facilities of Elektroindustrija (a fridge factory), the “Old Obod” (1953)<sup>29</sup> in the very center of the town, the “New Obod” and the shoe industry “Kosuta” (1963), constructed “outside the town” in the settlement Donji kraj (which is nowadays a part of the town but outside the original city core). The industrial complex of “New Obod” was constructed based on the project of the architect Vojislav Damjanovic, “in glass and concrete, with the use of modern technology and the architecture of clean, attractive forms of constructivism” and it is considered as “one of the most successful achievements of its kind in Yugoslavia”<sup>30</sup>, which provided employment for up to 3,000 employees and had the record production in 1988.

When it comes to the “Old Obod” location, there was a public competition in 2008 for the Urban Design solution for the university complex of the Faculty of Arts (this space was out of function for 25 years)<sup>31</sup>. The university complex, on the floor area of 3,15ha, should

28 Martinović, D., & Martinović, U. (1980). Cetinje: spomenici kulture (pp. 151-153). Cetinje: Obod.

29 The “Old Obod” was created as a result of the adaptation of the facilities of the old Laboratory – at the initial period it produced: soap, shoe polish and fluorescent lamps, installation materials, electric meters and small appliances. Ibid.

30 Ibid.

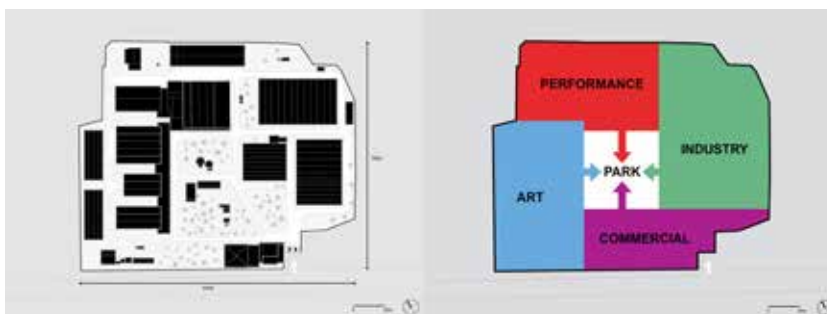
31 The Competition Authority was the University of Montenegro and the Organizer was the Faculty of Fine Arts Cetinje. The art faculties are currently located in the ex-embassies of Russia, Great Britain and Turkey, in the historical center of Cetinje which belong to protected cultural heritage. The existing facilities in the spatial and

contain there following: Faculty of Fine Arts, Music Academy, student dormitory and joint facilities of the floor area of cca 8,600 m<sup>2</sup>. Given the fact that the current facilities had no significant architectonic value, it was possible to make more radical interventions on them. The winning bid proposed to retain a certain segment of the existing facilities and with the construction of the bypass road a fluid connection with the downtown has been achieved.<sup>32</sup> The realization of one segment of the complex started in 2010. However, due to the lack of financial means, its progress is quite slow and with uncertain deadlines. (Figure 3)



**Fig. 3:** “Old Obod” in Cetinje: before 2010 (left); 1st Award Urban Design solution for the University complex of the art faculties, 2008 (right) (Retrieved from The Catalogue of Competition Papers, Plavi dvorac, Cetinje, March 2009).

The Master Plan of polyfunctional center “Marina Abramović Community Centre Obod Cetinje” – MACCOC – the so called “Unfreezing of Cetinje” is of special importance for future development of Cetinje, where the location “New Obod” will be used for the establishment of complementary economic and cultural-educational activities in the space of cca 140,000 m<sup>2</sup>. The idea is that MACCOC should serve as a place for the production, presentation, distribution and development of different forms of art: performing arts, fine arts, film and video, music and opera, theatre, as well as for the stimulation of interest in architecture, science and new technologies, which includes the transformation of old industrial production (household appliances - refrigerators) to new sustainable design technologies - production of solar panels. Besides, the Center is envisaged for socio-educational programs, ecological programs and programs related to networking and cross cooperation, and the contents of the center will be versatile: bookstore, media library, archive, publishing house, hotel, offices for rent, etc. It is of special importance that the project was launched by the world famous artist Marina Abramovic<sup>33</sup>, as well as that the head of the project team for the design of the Master Plan is also a world famous architect, Rem Koolhaas (the director of Office for Metropolitan Architecture - OMA) together with Shohei Shigematsu, the head of AMO, the New York OMA office. (Figure 4, 5 and 6)



**Fig. 4:** “New Obod” in Cetinje: Existing industrial complex plan (left), program scheme of MACCOC (right) (Presentation of OMA, Cetinje, September 2012, retrieved from Municipality of Cetinje).

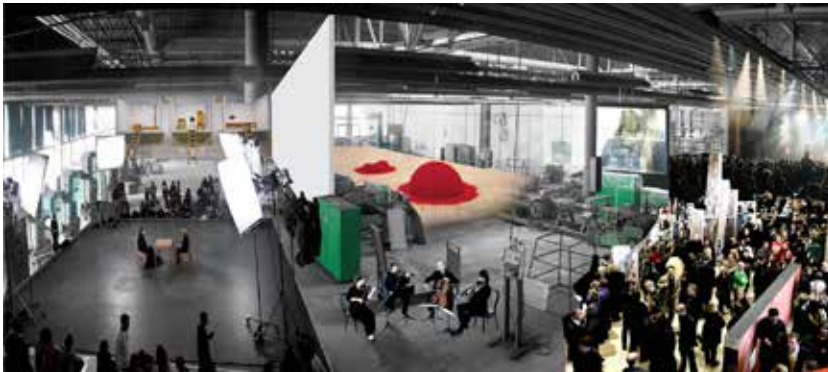
organizational sense are not suitable for educational activities and that is why the initiative for the establishment of the university complex of the art faculties at the location of the former industrial complex “Old Obod” was launched.

<sup>32</sup> The author of 1st Competition Award was architect Andjelka Badnjar from Podgorica.

<sup>33</sup> Marina Abramović has Montenegrin origin.



The revitalization strategy of this vast industrial complex actually leans on two basic elements: on the one hand, the engagement of world famous names in the fields of art and architecture (Marina Abramovic, Rem Koolhaas), and on the other, the variety of contents from cultural to industrial production (new technologies) which are compatible and based on the principles of self-sustainability.<sup>34</sup> However, following the public presentation of the Master Plan in Cetinje in September 2012, which was attended by high representatives of the Montenegrin government and members of diplomatic circles, as well as the artist Abramovic and the authors of the Plan, no significant steps in its realization have been made since.



**Fig. 5:** “New Obod” vs. MACCOC center: industrial space turned into the space of artistic production (Presentation of OMA, Cetinje, September 2012, retrieved from Municipality of Cetinje).



**Fig. 6:** MACCOC center – The transformation of industrial production: from household appliances (left) to solar panels production (right) (Presentation of OMA, Cetinje, September 2012, retrieved from Municipality of Cetinje).

#### 2.4 Urban re-development – complete disappearance of industrial complexes and structures and formation of a new urban matrix, most frequently for residential or tourist purposes

The establishment of a completely new urban matrix in the former industrial areas is characteristic primarily for Podgorica (due to constant migrations from all parts of the country to the capital, the need for residence zones increases) but also for certain towns in the Montenegrin south which thus obtain the space for the development of tourism-service activities (the example of Tivat).

<sup>34</sup> Kujundžić, K., Stamatović Vučković, S., Bojković, V. (2013). Contemporary revitalization strategies for the industrial heritage in Montenegro. In International Scientific and Practical Conference - Issues of Preservation and Continuity of Architectural and Urban Planning Traditions in Modern City (pp. 131 – 142). Rusija: Volgograd.

In the area of Podgorica former industrial zones disappear mainly as a result of the construction of commercial or residence-business blocks, such as: Shopping Mall “Delta City” (2008), on the premises of the former furniture factory “Marko Radović”; residence-business block “Čelebić” on the premises of the former smelting factory “Radoje Dakić” (1963); business-residence building of “Zetogradnja” (2014) on the premises of the former city dairy factory (1961). The planning-project documentation has also been prepared for the tobacco factory zone, which also envisages the construction of a business-residence block.<sup>35</sup>

The most radical re-urbanization and, at the same time, the most successful privatization on the territory of Montenegro is related to the segment of the central coast of the Boka Bay, i.e. the transformation of the military shipyard Arsenal in Tivat into the nautical-tourism complex “Porto Montenegro”<sup>36</sup>. The Maritime-technical Shipyard “Sava Kovačević” was established in 1889 as a maritime Arsenal for Austro-Hungarian navy. In 1921 it became a part of the Navy of the Kingdom of Serbs, Croats and Slovenes. Following WWII it became a part of the Yugoslav Navy. The shipyard was engaged in the repair of ships and submarines, construction of small ships and military pyrotechnics. It had 1,000 to 1,300 employees and it represented the basic development force of Tivat in the second half of the 20th century.<sup>37</sup> However, only in 2007, when it was privatized<sup>38</sup> and when it finally became “a part of the urban tissue” with a 2 km long and 2 m high wall, i.e. the fenced and inaccessible 30 ha of Arsenal space, did it stop to represent a space blockade which directed the development of this part of town towards the hinterland instead towards the coast.<sup>39</sup>



**Fig. 7:** The disappearance of industrial heritage: the old dairy factory in Podgorica becomes a residence-business zone (Retrieved May 15, 2016, from <http://www.skyscrapercity.com/showthread.php?t=868232&page=10>(left); <http://www.fujitsuklime.com/zetogradnja-podgorica> (right)).

“Porto Montenegro” has become a luxurious tourism complex with a super yacht marine (450 berths), residential amenities (marina-side shopping village), swimming pools, condo-hotel “Regent”, a museum and other amenities, such as luxurious shops, restaurants and cafes, galleries, sports clubs, business premises, international school, etc. (Figure 9) From previous industrial facilities, the only preserved one is the old concrete and steel construction for repairing ships and submarines in its original shape, currently turned into a museum which exhibits the industrial heritage of Arsenal – objects, tools, and machines which were used in the past production processes (naval heritage collection)<sup>40</sup>.

35 UP “Duvanski kombinat”, Podgorica, 2012 (“Urban projekt”, Čačak, Srbija)

36 This important “spatial transformation” was presented at the first independent presentation of Montenegro at 9th Architecture Biennale in Venice in 2008 (Exhibition Commissioners: Radović G., Keković A., Stamatović S.)

37 Mutevelić, I. (Ed.). (1989). Mornaričko-tehnički remontni zavod „Sava Kovačević“, Tivat (1889-1989). Tivat: Mornaričko-tehnički remontni zavod „Sava Kovačević“. Mostar: Prva književna komuna.

38 The company “Adriatic Marinas” d.o.o. was the owner of “Porto Montenegro” from 2007 (Canadian businessman Peter Munk), to May 2016. The new owner is Investment Corporation of Dubai (ICD).

39 Radović, G. (2008). Transformation: Arsenal-Porto Montenegro. In Radović, G. (Ed.). Transformation - From the Arsenal to Porto Montenegro (pp. 98 – 103). Podgorica: Arhitektonski fakultet Univerziteta Crne Gore, Ministry of Culture, Sport and Media Crne Gore.

40 Pejaković Vujošević, M. (2008). The Nautical Museum – Keeper of the Arsenal industrial heritage. In Radović, G. (Ed.). Transformation - From the Arsenal to Porto Montenegro (pp. 123 - 128). Podgorica: Arhitektonski fakultet Univerziteta Crne Gore, Ministry of Culture, Sport and Media Crne Gore.



**Fig. 8:** Military shipyard “Arsenal” in Tivat, 1989 (Retrieved from Mornaričko-tehnički remontni zavod “Sava Kovačević”, Tivat (1889-1989), 1989, p. 8).

At one of the jetties (Jetty 1), an Old Crane was preserved and it has become one of the “Porto Montenegro’s” symbols. As part of “Porto Montenegro” there is also a valuable postmodernistic facility (a former military compound of the Yugoslav Army, 1989, arch. A. Djokic) which is used as the administrative headquarters.



**Fig. 9:** “Porto Montenegro” – a luxurious nautical-tourism complex with the super yacht marine, 2016 (Retrieved May 15, 2016, from [www.portomontenegro.com](http://www.portomontenegro.com) ).

Although with the “fall of the Arsenal wall”<sup>41</sup>, the long-time introverted and isolated military compounds finally obtained an opportunity to become an integral part of the town through new, versatile amenities, a true social-spatial integration of this area and the central urban nucleus has not been fully achieved yet. Paradoxically, former Arsenal, although isolated with the concrete wall, used to be an inseparable part of the town and its inhabitants’ identity while contemporary “open” amenities, as a “product” offered to the “guest-tourists” exclusively and not to the primary citizens, still have not reached that level, unfortunately.

2.5 “On-hold” spaces – industrial facilities which, given their historical-architectonic values, still await adequate reconstruction and change in use

Rare industrial facilities which date back to the first half of the 20th century, such as a  
 41 Stamatović, S. (2008). Space control - The Wall. In Radović, G. (Ed.). Transformation - From the Arsenal to Porto Montenegro (pp. 103 – 113). Podgorica: Arhitektonski fakultet Univerziteta Crne Gore, Ministry of Culture, Sport and Media Crne Gore.

former soap factory “Rivijera” in Kotor (Škaljari) from 1926, although privatized, have still not been awarded appropriate use.<sup>42</sup> The factory “Rivijera”, the oldest industrial facility in Kotor, stopped working after a devastating earthquake in 1979. Still, the necessity to preserve its primary physical structure and its significance, have been stated in the guidelines of the General Urban Planning document Škaljari: “due to the historical significance of the factory for the development of industrial architecture, it is necessary to retain the segments from the first and second phase of the complex construction”<sup>43</sup>. From a historical, architectonic and town planning point of view, the industrial complex of “Rivijera”, which is in a very bad condition nowadays, represents a very important facility. The attractiveness of the location (in the closest vicinity of the town nucleus), of the floor area of 2ha, as well as its open view towards the Old Town and the sea from the higher floors, represent important development potentials for the future reconstruction in which this facility should be adapted for adequate cultural-tourism use.<sup>44</sup>

### 3 Conclusion

Despite the industry’s evident influence on the creation of the socio-cultural identity of Montenegrin towns (often directly linked to the primary development of certain towns), the industrial heritage in Montenegro is neither valorized nor systematized and, consequently, it is not under the appropriate protective measures, either of the local or national character. This is actually the main reason why the industrial heritage potential in Montenegro is not adequately recognized and why the industrial zones, following the privatization process, were treated exclusively as a spatially and not also as a historically-architecturally valuable resource. The conversion of one segment of the industrial zone in Berane through space “fragmentation” is exclusively for industrial purposes and, unfortunately, it excludes cultural valorization and the implementation of protective measures for certain facilities. In the new luxurious tourist complex with a marine in Tivat (“Porto Montenegro”), only one industrial facility has been preserved and the “memory of the location” (Arsenal) is not sufficiently recognized or offered as an additional cultural-tourist amenity, which has, among other things, led to a hindered integration of the new amenities in the overall life of the town. The activities on the construction of the art academies at the location of “Old Obod” in Cetinje have recorded a very slow progress while the ambitious, multi-layered program for “New Obod” still awaits the start of its realization, despite its well-thought concept and star-names who stand behind it. The above mentioned examples warn that one segment of the industrial heritage of Montenegro has been irrevocably lost and that it is high time to recognize these areas and facilities as a real cultural potential, to adopt adequate protective measures and guidelines for their further development and thus to establish the right, responsible and sustainable cultural policy towards this segment of the cultural-historical heritage.

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42 The new owner Henkel Industry Riviera d.o.o. planned to construct a shopping mall. However, it never came to the point of realization due to the disputes with the municipality of Kotor with respect to the ownership over the plot of land.

43 General Urban Planning document Škaljari, (GUP Škaljari, Kotor, AG info plan: 2010), p. 20. Retrieved November 15, 2012 from [http://www.cg.opstinakotor.org/images/stories/dokumenti/urbanizam/usvojeni\\_planovi/2.%20GUP%20Škaljari/GUP\\_SKALJARI-Tekst.pdf](http://www.cg.opstinakotor.org/images/stories/dokumenti/urbanizam/usvojeni_planovi/2.%20GUP%20Škaljari/GUP_SKALJARI-Tekst.pdf)

44 Stamatović Vučković, S.; Kujundžić, K.; Bojković V. (2012). Valorization and revitalization potentials of the industrial buildings in Montenegro. In III Conference Industrial Heritage – Problems and Opportunities of Integrative Protection, Presentation and Revitalization, Belgrade, November, 2012. Marković, S.D. (Ed.) Belgrade: Institute for Protection of Cultural Heritage of Belgrade, CD - ROM.