Post-Industrial Landscapes: dereliction or heritage?

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Abstract: The idea of sustainable development is more frequently associated with natural environment protection than with preservation of the built and cultural heritage. However it is widely acknowledge that the values connected with sustainable development are significant for people's daily environment and the built and cultural heritage are an integral part of it. Cultural values need to be determined, meaning given to elements of the city, its importance identified and exceptional sites highlighted. This fact added to the necessity of reusing abandoned industrial landscapes in detriment of consuming new ones, increases the need to enlarge the interpretation of the term "cultural heritage", to analyse and interpret the value and significance of post-industrial landscapes and to develop new mechanisms to preserve it. This paper presents a set of design principles that might be applied to a specific post-industrial landscape that possess cultural and social value (the left margin to the Arade River). These principles describe in a general manner the ways in which relevant resources created by the industrial era can be enhanced and rehabilitated.

Key-words: Sustainable Development, Industrial Heritage, Arade River, Urban Redevelopment.

1 Introduction

Historic areas are progressively coming under threat of new development [36]. The impact of new construction is noticed not only at nationally important sites, but also in local areas, where small changes can be very significant, diminishing landscape character and local distinctiveness. Therefore, new frameworks are needed to protect and highlight our cultural heritage, now that history has gained a high profile in people's lives.

The concept of cultural heritage has clearly meant different things to different groups of scholars and the public interested in reclaiming traditions - and landscapes - presented as part of shared, remembered pasts [10]. In 1949, the Statute of the Council of Europe, adopted in London, quotes that: "to achieve a greater unity it is imperious to safeguard cultural heritage and to facilitate economic and social progress" [33]. The years ahead proved that the conservation and safeguard of the natural and cultural environment was one of the major issues confronting society. Since then, several basic legal instruments were adopted in order to protect this heritage: the Bern, Granada, Valetta, Lugano, Strasbourg, and Florence conventions are examples of this purpose [21, 31].

The history behind the birth and development of a city should be traced and features revealed in order to retain, amend and transform implicit values. This analysis of society and this understanding of an area lead to a social perception of the kind of place people wish to live in, and to the realisation that the whole city is our 'heritage' [17, 34], regardless of whether it is large, small, historic, industrial, old or new. Cultural landscapes give us a sense of place and reveal our relationship with the land over time [8, 9, 14, 26, 38, 39]. They are special places that contain aspects of our origin and development through their forms, features, and history of use.

Considering that industrial heritage is an integral part of our culture, and that the member states of the Council of Europe which have adhered to the European Cultural Convention on the 19th of December of 1954 committed themselves – under Article 1 of that Convention – to take appropriate measures to safeguard and to encourage the development of their national contributions to the common cultural heritage of Europe; They recognised that heritage, regardless of being architectural, vernacular, industrial, etc., is an irreplaceable expression of the wealth and diversity of common culture. It is an "entity" shared by several people, which every country must show real solidarity in preserving.

This paper presents some design principles that might be applied to a specific post-industrial landscape that possesses cultural and social value.

2 The Industrial Landscape

Industrialisation promoted significant changes in the landscape: greater densities in urban areas and the urbanisation of the natural and rural environment. The city acquired a new – industrial – face, and a new order [1]. This new landscape was defined by the concentration of industries and by the needs of a growing population, often new workers in a new society who demanded new public services and infra-structures, thus contributing to the image of the typical 20th century settlement.

However, over the past decades globalization, deindustrialization, industrial relocation and economic (re)conversion has had a profound effect on traditional industrial areas all over the world and produced a vast array of obsolete industrial facilities and the various impacts, which are generated from them [25]. The formal products of the modernist movement have become obsolete, forcing this generation to decide on the disposition of the last generation's industrial environment [25].

In recent years, several researchers have contributed to evaluating, documenting and developing remnants of the industrial society [5], in order to emphasise the necessity of taking postindustrial landscapes into consideration in the planning of the city, considering industrial heritage as a resource and as an integral part of collective identity. The classification of the landscape as industrial implied a qualitative perception in which territory and industrial infrastructures were analyzed from a functional, cultural and historic perspective [37]. According to Borsi [28], the industrial landscape may be defined as "the landscape resultant from a thoughtful and systematic activity of man in the natural or agricultural landscape with the aim of developing industrial activities". This definition enabled the recognition of an entire landscape as a single "element", as opposed to simply recognizing a building, or a group of buildings of an industrial site, allowing the expansion of the conception of industrial preservation to accommodate "recognized patterns of activity in time and place" [28].

The concept of industrial landscape is, in this sense, used to describe and classify the "remnant" materials of the industrial culture in order to attribute them a new meaning [19, 20], with the objective of creating a theoretical basis and a practical methodology both for the study and for the intervention in these landscapes, to adapt them to new production systems and new cultural uses.

2.1 Post-industrial landscapes: threats or opportunities

The fact that several countries are now facing various problems produced by landscapes constructed during the modern period [e.g. industrial revolution], currently in complete physical and functional decadency, contributed to enlarge the negative public perception about these spaces.

Even so, the meaning and the relevance of industrial landscapes is now larger than ever, especially because of the creation of the Nizhny Tagil Charter for the Industrial Heritage in 2003. This charter specified clearly that the buildings and structures built for industrial activities, the processes and artefacts used within them and the towns and landscapes in which they are located, along with all their other tangible and intangible manifestations are of fundamental importance [30]. They should be studied, their history should be taught, their meaning and significance should be probed and made clear for everyone and the most significant and characteristic examples should be identified, protected and maintained, in accordance with the spirit of the Venice Charter (1964) [40], for the use and benefit of today and of the future [30].

However, the spaces that have been recognised and defined as industrial heritage, still face inappropriate appraisal of material and cultural resources and stereotyped ideas of industry, once the way in which they were designed do not satisfy the aesthetic, ecological, and functional requirements and standards [3]. Appearance was and continues to be almost everything, given that the assessment of the industrial heritage is often anchored to visual values rather than to any other consideration of function or history [32]. Additionally, the interventions developed to post-industrial landscapes are frequently reprehensible, contributing to the disappearance of various buildings with significant meaning [e.g. figures 1 and 2].



Figures 1 and 2 – These photos are representative examples of the reclamation of post-industrial buildings in the Algarve during the last decades. The designers opted to destroy the buildings completely, leaving the chimneys as if they represented the entire value of the building.

Moreover, they are often realized to isolated buildings, which are a mistake [2], as the analysis and intervention in these landscapes should never be directed to a single building, but to the entire industrial landscape.

When planning professionals analyze and redevelop these landscapes, need to realise that postindustrial, typically part of ordinary or vernacular landscapes, incorporate the passage of time, representing multiple layers of time and cultural activity therefore being part of the identity of a people and a place. In this sense, those landscapes should be seen as assets, once as historic sites they enhances the possibilities of creative practice in preservation, design, and planning, given that they are by definition: unique, resulting from the combination of natural landforms and buildings defining a particular place or region. Those changes in perception contributed to increase the relevance of industrial landscapes and to highlight the need to study and protect the material and immaterial remains of our industry from a different perspective [11, 35].

3 What future for the industrial heritage?

The concept of Industrial heritage was only introduced in England in the middle of the twentieth century, during a period when several industrial buildings and landscapes were destroyed [23]. By this time the concept of heritage crossed the boundaries of the industrial era, moving to a past much closer to the present [12]. Since then several efforts have been made in order to define what should and should not be considered as industrial heritage. According to the Nizhny Tagil Charter the "industrial heritage consists of the remains of which are of historical, industrial culture technological, social, architectural or scientific value" [30]. It is necessary to recognize that landscape and architectural heritage are a capital of unique spiritual, cultural, social and economic value and that the destruction of any part of it leaves us poorer, since nothing new that we create will substitute that loss [16].

Nowadays it is common to hear such phrases as "landscape architecture must be sensitive to its surroundings" or "it is essential to develop a sustainable sensitive approach". The problem is that many times, technicians or local authorities do not really understand what these phrases mean, allowing the use of some design techniques and strategies that modify the spirit of the place (fig. 3). In this sense, before starting to develop a reclamation or rehabilitation project for a post-industrial landscape it is important to find the answer for two different questions: 'why' and 'how' to reclaim and protect the industrial landscape?



Figure 3 – Boca do Rio Hotel Resort is a good example of this policy, representing the conversion of a former industrial building into a hotel located right in the margin of the Arade River, where the chimney was the only element that lasts from the former structure.

The answer to the 'why' is often very clear. Industrial landscapes describe an important part of the history of a place, thus, constituting a testimony of cultural, social and economic conception and evolution which documents and interprets considerable values for urban heritage. Furthermore, the analysis and recovery of these landscapes constitute an opportunity that tends to be lost in time, considering the growing urban pressure that, especially in pleasant and valuable landscapes, had several times led to the disappearance of various industrial infrastructures, some with high heritage value and significant relevance.

The answer to the 'how' is relatively more complex, once, even if there are several possible answers to this question; each one includes generally several restrictions enabled by the search for profit maximization by private and public sectors. Although it is recognized that the economic and social dimensions of the rehabilitation process cannot be dissociated from the environmental and cultural dimensions, and that the cultural heritage has become a key factor in improving people's surroundings, addressing issues of social cohesion and encouraging economic development, little has been done in order to rehabilitate the industrial buildings and its surrounding landscapes which were often the catalysis to the creation of the urban settlement; and in addition to that design professionals tend to highlight 'how' to manage landscapes (redevelopment proposals, cultural analysis, cultural landscape reports, heritage management plans, etc.) but not 'why' should we be concerned with historic sites and places or 'what' are the expectations and 'which' are the objectives we seek to accomplish by working with them.

"Now" that the post-industrial landscape is [more than ever] considered an asset and as a catalyst for urban redevelopment by being a relevant element of the *genetic code* of the city, according to which rebuilding from degradation should be performed [6], the answers to these questions should be formulated in order to maximize the benefits that may arise from its (re)development.

4 The post-industrial landscape of the left margin to the Arade River

The post-industrial landscape to the left margin of the Arade River is located in the municipality of Lagoa, Algarve, which is characterized by the presence of Mediterranean landscapes. As Loures and Panagopoulos (2007) mentioned the relevance of the Arade River and its surroundings in the local, regional and national context is attested by numerous archaeological evidences found submerged and around it. In the beginning of the twentieth century the implantation of an industrial center in the river margins promoted a significant development of the area, which was enhanced during the First World War.

The whole process was one of great dynamism which would completely transform the existing landscape. At this time almost two thirds of the population worked on industry [27]. Nonetheless, during the late sixties the industrial activity collapsed and numerous industrial structures left abandoned. This post-industrial landscape represents nowadays an historic and cultural environment, in the sense of being a "system" which can tell the history of how people have interacted with the landscape that they inherited, during a period of massive socio-economic change as it was the industrial era.

Figure 4 represents a panoramic view of the left margin to the Arade River, in which each number is located right above a visible chimney from a former industrial building associated with the fish transformation industry. The unity evidenced by this landscape is notorious, as well as the impact that unthoughtful de-characterizing interventions might have in it. For this reason any design solution developed for this landscape should take into consideration several design principles: - make explicit provision for public participation to ensure that the community can play a role in shaping the (re-)development proposals;

- ensure that development responds both to site and context, reinforcing the sense of place and local distinctiveness;

- promote adaptability and diversity through development that can respond to changing social, technological and economic conditions;

- promote the continuity of multifunctional spaces associated with industrial buildings and street frontages, encouraging the utilization of reclaimed spaces and promoting accessibility and local permeability;

- reuse previously developed sites or unused buildings and ensure more compact development that enhances accessibility, affordability, and conviviality;

- promote legibility through redevelopment that provides recognisable ways, intersections and landmarks;

- ensure that design creates places that have variety and choice through a mixture of different uses, functions and activities;

- ensure that all redevelopment of industrial buildings and spaces is of a human scale, well detailed and landscaped;

- locates development to protect environmental quality by avoiding areas of ecological and cultural value.

5 Discussion and conclusion

"(...) the longer I look at landscapes and seek to understand them, the more convinced I am that their beauty is not simply an aspect but their very essence and that, that beauty derives from the human presence. (...) The beauty that we see in the vernacular landscape is the image of our common humanity (...)". This quotation by Jackson [22], specifies perfectly the reason why certain industrial Landscapes have an intrinsic value, which should be protected and highlighted in a similar manner as other cultural elements, and considered part of our heritage.



Figure 4 – Panoramic view of the post-industrial landscape of the Arade River (10 industrial elements are marked.

The essential notion behind the necessity to protect the industrial heritage is that those landmarks are not only connected with history, which is narratological, they are also connected with memory, which according to Moore and Whelan [29] in order to maintain the uniqueness of a place, its memory must be protected, maintaining the "genius loci" and the characteristics that bring the past into the present [24].

In this sense, it is essential to continue studying the city as an evolutionary 'object', by looking at culture and heritage, without forgetting that the values and the history of the city do not end in the eighteenth century [13]. For this reason, the recovery of post-industrial landscapes should be seen as part of larger, ongoing processes of architectural preservation and urban design, once, it is not confined to the most symbolic factories. It includes, also, all the additional elements and structures associated with the industrial activity [15]. It is imperious that politicians, developers, stakeholders and planning professionals understand that the maintenance of the urban layout is one of the most important features for the cultural identity of a city, and that the industrial landscape is an important part of it. In this way, industrial preservation and reclamation becomes more than the celebration of the past, as important as that is; it becomes part of reconstructing the future. Thus, industrial preservation that connects people, place, and history fosters a sense of place and the power for community renewal. As Stan Allen 4] said we should realise that "working with and not against the site, something new is produced by registering the complexity of the given".

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