

EVOLUTION OF PERCEPTION OF RIPARIAN LANDSCAPES

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I. INTRODUCTION

Riparian landscapes are one of the most singular and dynamic places, not only by their uses and profits, but also as reference point. They have historically been a highly valued area for those who lived in their vicinity; the water allowed multiple uses such as cloth washing or cattle watering, mill wheels moving up or even the watering of gardens. A riverbank is a source of life, and also an edge and a border in relation to the river regime.

They have traditionally been exploited, but throughout the past decades many riverbanks were socially marginalized. Water continued being heavily exploited, but the surrounding area was not a place for grazing, recreation or even agriculture or forestry use anymore. Urban fringes of rivers reached high levels of contamination and were subsequently reinstated by the network as an urban leisure, or simply as green areas. This abandonment has led to a rapid social restoration of natural vegetation with the relocation of flora and fauna that characterize it.

The Mediterranean rivers have a low and irregular flow, which has caused this stated high valuation of water and biotic resources. Nevertheless, from the mid-twentieth century, the rivers and their surrounding areas became a marginal area, having a progressive environmental degradation until the 1980s, when several citizens' initiatives began to recover the river landscape, not only because of their necessity of water, always scarce, but especially by the landscape itself, the vegetation and wildlife. The history of their uses (mills, weir, irrigation ditches, bridges, water wheels, etc.) is recovered and in many cases the landscape is integrated into the urban waterway. This integration into the urban landscape is often forced and constrained by the reality: human society can not beat the riparian landscape, which they often want suppress, as it has been done in other landscapes, but the dynamic river flood stopped this sudden disappearance, despite all these attempts. The coverage of the «Ramblas» has a higher risk in urban areas than in a fund open valley and, not having this in consideration, it is fully integrated into the urban scheme. Therefore, there are many towns and cities where the population has decided to accept, not always in agree, the reality of the

dynamics of the river environment, once in the cityscape. In spite of this fact, the number of people who believe that rivers are a danger for their town or city is quite high, forgetting the great environment value a river and its landscape have.

After a long time, population and individual scientists, technicians and artists have changed their point of view regarding riparian landscapes. The current urban mentality is far away from the perception that rural population had more than fifty years ago. By then rivers were something important, a reference and a resource area. The human population lived all watercourse issues: risks, dangers and sources at the same time.

The perception was also different for geographers, who studied and worked in these river areas. There are several studies related to the use of rivers and their environment, but just a few comments about the studies carried out on the riparian landscape within a geographical perspective.

Artists and writers have always paid special attention to the riparian landscape. It has been a huge inspiration for them. It is assumed that we must consider a valid interpretation of the current landscape only if we take into account human intervention throughout history as a primary factor; of course, natural factors are also included. All the civilizations that have occupied a territory have used and transformed the landscape depending on their needs and skills. The current landscape is the result of various interventions and its structure and operation would be completely different without human presence. The study of the existing landscape can only be understood in its entirety when considering these distinct human interventions throughout these years.

The purpose of the project which this article is based on is the understanding of the structure and the running of the existing landscape in a double perspective: from the former, by analyzing the current landscape and, from the latter, considering various strategies that human societies have used for their own benefit of the resources that the environment of the river banks have offered. This paper provides the most significant elements of the perception of the landscape of the Mediterranean rivers by population in general, as well as various specialists and artists. Studies have been focused on the riparian landscapes of Catalanian, although results have been compared with other areas of the Mediterranean rivers, so the findings can be considered in a wider range.

Detailed analyses of changing perception of riparian landscapes have only been carried out throughout these last three centuries and up to the mid-twentieth century. Because of the complexity and the time required only the most significant features from the last decades are considered.

II. METHODOLOGY

From the methodological point two sets of activities have to be distinguished. On the one hand, the study of the current landscape of the shore, and on the other hand, its history. The current landscape has been studied in a global perspective, considering that in each scale there is an own structure and organization. The analysis of previous studies and field works has formed the basis for developing a synthesis of how the current riparian landscapes are. In order to study the history of the landscapes and how the perception of the different groups has changed, different specialists, who might be considered as geographers or that at

some point in their life have studied or written geographic papers during the second half of the XIX century and early XX century, were strongly considered. At first, we have selected Jaume Almera, Pere Blasi, Joan Carandell, Francesc Carreras Candi, Marcel Chevalier, Pierre Deffontaines, Salvador Llobet, Valentí Masachs, Gonçal de Reparaz, Josep M. Puchades, Lluís Solé Sabarís and Pau Vila.

It is interesting to note the different training and the professional activities of these «geographers». —Only three were pure geographers or had geography as their main field: Pierre Deffontaines, Salvador Llobet and Gonçal de Reparaz. The largest group comes from the field of geology or, in a wider sense, the field of natural sciences: Jaume Almera, Joan Carandell, Marcel Chevalier, Valentí Masachs and Lluís Solé Sabarís. Two were outstanding teachers: Pere Blasi and Pau Vila. One came from law studies, but was considered a historian: Francesc Carreras Candi. Finally, another one came from the field of engineering: Josep M. Puchades. All of them have in common their dedication to geography, and they are truly considered geographers. This list of authors could have certainly increased, as regards, Noel Llopis Lladó, Josep Iglésies or Eduard Fontserè.

Once the authors were selected a brief biography was done, especially related to general geography in general and the riparian landscape in particular. The most interesting papers regarding the riparian landscape were chosen and made more readable. Afterwards, the key elements of each author were established and then analysed all together, in a way how they saw and interpreted the riparian landscape.

Each author considered the following fields:

- Place of origin, and family atmosphere.
- Academic and Vocational Training
- Professional background
- Publications
- Influence and feedback between geographers

We have similarly worked with various artists and writers. Among the artists, painters such as the landscape school of Olot were included. In regards of the writers, have been selected several novels and poems which are set out various aspects of the riparian landscapes. It is also noteworthy to mention the writings and legends made by the popular imagination.

III. CONCLUSIONS

There is a predominance conception that the landscape is seen from a physiographic point of view. This is the most common one: the relief is the maximum expression of the landscape. The landscape is what we see, the shape of the land surface, and the relief and the rocks that made it form the basis of all mapping. It is clear from the views that have a geological formation, but it is also latent in most of the others.

Among geologists is considered that the genesis of the relief and the formation of the rocks are the basis for explaining the genesis of the landscape. For them, there is no other landscape. The weather and water are factors that explain the genesis and the vegetation is not included in their analysis. Their explanations are often described graphically by maps, block diagrams and profiles. Chevalier and Carandell were outstanding in their works and

their hands were able to represent excellent drawings of reliefs with a great scientific, even artistic and technical importance.

The use of graphics as a way of communication was not exclusive for geologists; the works of Blasi, Llobet, Masachs, Reparaz and Sabarís Solé include a wealth of charts, diagrams, profiles and maps.

Deffontaines was able to translate their insightful comments on drawings with a great capacity to make others understand the most significant features of a landscape.

In general the riparian landscape and its constituent elements are presented in a descriptive way. The phenomenon and processes that have led to the current landscape rarely occur, especially in the case of physical phenomena. Rivers are described from a «geographic» view, that by that time meant topography and physiography: river head, tributaries, villages where rivers go through and mouth. The data concerning the length of the river and surface of the basin were basic.

The information of the rivers was based on an analysis of flows and its regime. The main prototype is Masachs, which makes the study of rivers with data from gauging stations and the establishment of a river typology on the basis of its regime, in relation to the rainfall and the topography. The data is currently of great interest as it was taken in a period when large reservoirs and land use for electricity generation, irrigation plans, regulation of the flow to prevent flooding and also to ensure water for irrigation and Urban supply, had not been carried out yet, at least not like our excessive magnitude. Other authors, such as Carandell, Llobet, Puchades and Reparaz, made treatments from the same perspective. The hydrographs were the graphic expression and were constantly used .

The phenomenon of flooding is often considered because of its importance in the landscape, life and human activities in our Mediterranean territory. For some it is only a phenomenon that affects human life, almost like an anecdote or a unique landscape, and just a few are dedicated to exposing the causes, consequences and how to act for minimizing catastrophic effects. Carandell, Llobet, Masachs, Puchades, Reparaz and those are the ones who deal with this issue.

Puchades is the author who puts more emphasis on floods, as well as irregularities in the flow in Mediterranean rivers. His mentality as engineer and his geographical perspective could explain the continuing strong assertions expressed in his monograph about Besós. Its findings and thoughts could even be considered something new, and that means 60 years after publication. Puchades also considers a river, or an entire watershed, as a system which everything is related: the flow and regime with its uses of water, the deforestation and the forest riverbank, with the global dynamics of the river and the quality of its waters and its landscape. Puchades also has a global view in relation to discharges within the pollution and the removal of aggregates. His studies should be considered as pioneer for his global vision of the river landscape and their analyses of the river from inside. Almost all the analysis of the rivers are made from the outside, seen and analyzed as a whole, but without understanding how it works and how everything changes the landscape. Puchades goes deep into the river and observes and analyzes every single element, and all the processes that he is able to detect. From this point stated he globally perceives the whole riparian landscape.

Geographers who don't have natural sciences or engineering as their major analyze the riparian landscape from other perspectives. We can mention in this group Blasi, Carreras

Candi, Deffontaines and Vila. Their vision is mainly descriptive. It provides basic statistical data (length and area), the main topographic and toponymic (river head and the mouth of tributaries and populations) and the most significant historical and current uses (mills, weir, irrigation ditches, bridges). Depending on the available space the description is more or less extensive. In addition, these authors know how to write clearly, no matter what kind of people read them, either students or common people. Blasi and Vila spent part of his life teaching and his writings are informative and educative texts of a territory, a basin, a region or a municipality. Hence, their texts reflect what the authors think it is the most important concept and what they want to show to the people. In this sense it is frequently stated that the references to rivers or riparian landscapes are written from the consideration that they are relevant areas like the skeleton of a land plot. The rivers are not considered important by themselves and for what they are, but what they represent, as a place of reference for delineating a territory, a place of transit or difficulty. They are usually clear descriptions with simple graphics attached and really understandable.

Finally, some key aspects are outlined which derive from the readings about rivers, riparian landscapes from the geographers we have studied.

— The riparian landscape is a landscape of prominent banks in the whole territory, especially in the Mediterranean area.

— There are a lot of perceptions regarding the riparian landscape: popular, artistic, scientific and technical. Scientists perceive and analyze the riverside landscape depending on their training and their professional activities.

— The riparian landscape was, up to the mid-twentieth century, a major resource for the human population. Water, vegetation, fauna and aggregates were constantly exploited. In consequence, it was a conflict area with its multiple uses and its limited source, variable in time and space.

— The riparian landscape has its own dynamic, which is difficult to modify by the human population. It has been used as a border, sometimes even as a limit, and others as a difficult place to cross and easy to defend at the same time because of its dynamics.

— The spatial perception that people and specialist have has varied throughout history and it is not possible correctly understand landscapes without considering human activity as a primary factor in their changes.

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