



Mário Monteiro Benjamim

Ph.D Student: UÉvora _ 1º Edition: 2011-2014

CHAIA – Centro de História da Arte e Investigação Artística da UÉvora

mariobenjamim@mb-arquitectos.pt

SPEAKER

From interpretation of the Site to the Project: a proposal for the Rock Art of the Tagus Valley¹

Abstract

An artificial intervention in the landscape, like the immersion of a large area by a reservoir, not only implies the obvious change in the usefulness of a resource, it can also dramatically affect the site by concealing the human legacy, landscape and patrimonial heritage, however important to the understanding of its historical make up. The research we developed has the purpose to conceive strategies to expose the rock art of the Tagus Valley, which has been immersed by the construction of the Fratel dam on 1974, and the subsequent filling of the reservoir. These strategies pertain to a more extensive scope of intervention, where the engravings become a cohesive part of the current landscape, creating new usages for the premises and new opportunities for regional development. It is in this context that we find the possibility to validate a theoretical model of in-project research, through a concrete proposal of intervention; proposal that, in addition to being an experiment in design, will allow us to correct strategic methodologies and to progressively perfect the theoretical model itself.

Keywords: Schematic Art, Middle Tagus, Project, Identity, Heterotopias

¹ This text is part of the research for Ph.D thesis in architecture at the University of Évora with the theme: "*From project to the (re)interpretation of the place: The Rock Art complex of the Tagus Valley*"

Introduction

The strategy for the construction of dams and the harnessing of the waterpower potential initiated last century (and still maintained in the present time), exposed the national territory to profound transformations, sometimes abrupt and without the proper recognition of its cultural, archaeological, anthropological and architectural value.

Faced with a reality that is factual and unavoidable, and is recurrent in the most significant watercourses, we propose to find a model of intervention - cohabiting with the existing - with a view to define a distinct reading of the territory, and which will have, as a premise, the open air rock art as national patrimony. Because of its specific circumstances and because of the challenges inherent to this approach, the Tagus Valley is the object of study par excellence.

The research here presented is directed at two contemporary and problematic issues we consider relevant in the context of in-project research in architecture: a rural landscape that has change and an heritage of unquestionable value that has become under-utilized as a consequence of the alteration to which it has been submitted.

Of the broad subject that both themes encompass, we are interested in highlighting some concrete issues in order to exploit their potential: a characterization of a methodology for architectural intervention in archaeological sites - giving particular attention to the rock art heritage on these conditions of increased complexity -, the relationship of Man with an altered landscape, and the possibility of a cultural and patrimonial perspective in the management of the sites. We can only intervene in such a complex setting when we understand the recent changes occurred in the area and appreciate its intrinsic value as a cultural and patrimonial legacy.

A polysemic approach and a proposal for new identities will enable future applications to fit similar models of landscape. It is through an attentive interpretation of the site and the culture of the area that we set out our objectives with the intention to actuate a shifting towards new paradigms, here stated:

- To re-interpret the identity "River" by way of introducing new readings underlying the concept of landscape in Portuguese culture.
- To intervene and rehabilitate the area within a museographic perspective, bringing to attention the particularity of the specific structures and diversity of typologies.
- To understand the operational correlation between architecture and archaeology, in

view of patently enunciate common perspectives in the valorization and promoting of patrimony as the object of study

- To define methodologies of intervention-in-project suitable for use in archaeological sites with identical contexts.

- To draw conceptual constructs and methodological options in the disciplinary field of Architecture, aiming at rehabilitating the interpretation and perception of archaeological sites as an observable phenomenon.

The place

In an essentially agrarian environment correspondent to the socio-economic changes occurred in the twentieth century, the Tagus Valley remained dormant in time and space, permitting the preservation of 30,000 rock art carvings, attributed to periods from the Paleolithic to the Iron Age and recorded before the flooding of the Fratel reservoir in 1974.

This whole area attests to Man interaction with the natural landscape, particularly in how he settled and characterized the place. It is crucial for this research to understand how the rock art heritage was connected to the area and its surroundings, and the way it still relates to the present time.

What is intended in this processual approach is to point out the structural invariables of the place that underlie its identity, to recognize their formal structure and to adapt a new reality. Although introducing and reaffirming a new aesthetic identity, the project must be pledged to respect and safeguard the sites, and should not deface their original identity albeit transforming it if necessary.

Set in a context similar to an archaeological park, the rock art complex of the Tagus Valley, by its monumentality and authenticity, gives us the opportunity of a factual and tangible access to the vestiges of the past, as well as to the geological, climatic, scenic and human environment of its surroundings.

Case Study

The rock art complex of the Tagus Valley is distinguished by the abundance and quality of its carvings, which extend through the entire length of the Fratel reservoir and the river mouth of the Ocrea. Today, only 20% of this notable legacy is

accessible.

The case studies we selected are shown in fig.1. We will consider the areas already classified as well as the ones pending classification: S. Simão, Cachão do Algarve, Cachão do Boi, the area of Gardete upstream the Fratel dam, and the Paleolithic section at the Foz do Enxarrique.²

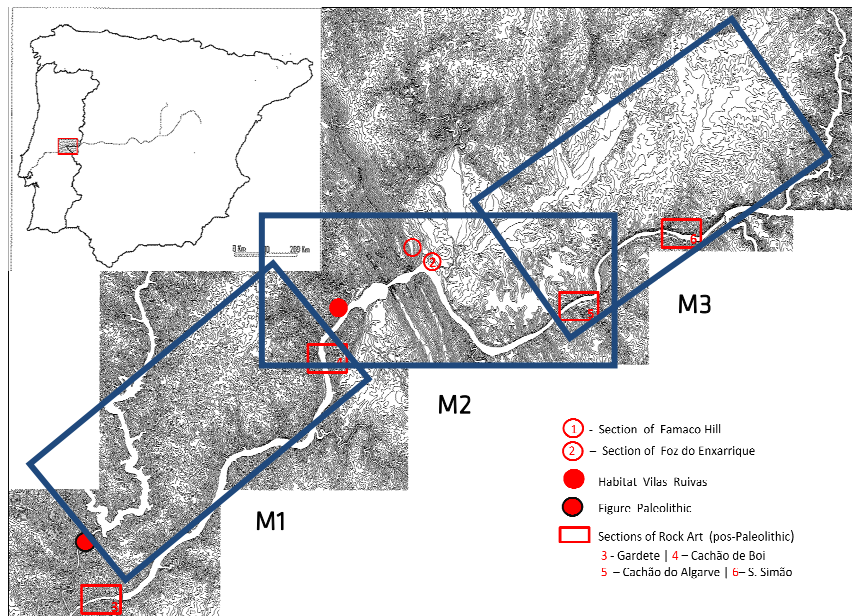


FIG. 1 - Location of the main Paleolithic areas and important carvings of the Tagus Valley

The areas of Cachão do Boi and Cachão of Algarve are entirely flooded, with depths ranging between three to eight meters, making it only remotely possible to access the engraved panels in this sector. The archaeological core of S. Simão, next to the Cedilho dam and the area of Gardete – this one being located outside the Fratel reservoir – will permit access to some of the carvings. The remaining panels being at shallow depths can occasionally be viewed.

² The oldest evidence of human presence in the region are found in sections of Famaco Hill dating from the Lower Paleolithic, about 200,000 years old; in Vilas Ruivas (the oldest habitat structure in Portugal) and in Foz do Enxarrique dating from the Middle Paleolithic, about 30,000 years old. They are positioned over platforms and terraces neighboring the river, and belong to one of the principal clusters of rock art of the Tagus.

The archaeological site of Foz of Enxarrique is located on the banks of the Tagus River, close to Foz da Ribeira, in Vila Velha de Ródão and has been designated as Property of Public Interest³. It is considered, both from the patrimonial and scientific standpoints, as one of the most important venues of its typology in the Iberian Peninsula.

The invariable structures

To interpret the territory in terms of cognitive perception is to recover the condition of man and his experience in space. (Turri 2006).

If we regard the existing landscape as a palimpsest, in face of the specific characteristics of the place we must question ourselves how to intervene, what are the instruments of composition, and ask how, and how far one should go when considering a permanent solution.

Projecting unto the landscape will always have a sense of poetic regression that implies the incorporation of the outside world, which can only be relayed through a process of identification with nature and with its origins.

An essential insight can be provided by an “archetypal analysis” reading, which will allows us to look at a territory through a range of broader references, notably texts of historical and geographic nature that, while giving a narrow reading, they nevertheless clarify and reaffirm the distinctive characteristics of the locale.

An additional and helpful interpretative perception can be drawn through a multiple reading of landscapes that, even when mastered by man, maintain a cognitive sense of order and harmony.

When we consider both the architectural reading and the cognitive perception of the territory, we have an opening to evaluate the level of uncertainties and, consequently, the opportunity to identify and resolve arising problems. It will, furthermore, help us to better understand the degree of knowledge at the disposal of those who built and inhabited these places and what were the considerations that determined its conception as places of survival, comfort, worship and beauty.

³ Decree 29/90, DR, Serie 1, 163, 17/07/1990



PHOTO. 1 Submerged rocks archeological site of St. Simon. Source CIARVT

Methodological approach

By cross-referencing the different sources at our disposal, the ongoing research is based on a methodology, that we want clear and accurate, so as to be re-applicable “material”.

Our first concern is to establish the limits of intervention: to circumscribe the area of study we must keep a spatial perspective when looking at a specific site, even when dealing with inter-territory settings. We start our research with the geographical delimitations of the Hydrographic Basin of Middle Tagus and the Secondary Basins of the rivers Erges, Aravil, Ponsul, Sever, Ocrea and Nisa.

A close examination of the hydrographic map through the “linhas de feito”, other than providing the geographic information, can also shed light on the structure of the territory related to the inception of the sites and archaeological areas being studied. We will initially align the “linhas de feito” according to their length and the area of its corresponding Hydrographic Basins, and compare them with cartographic records in order to identify parallelisms between the various structures.

To guarantee its hydroelectric output, the Tagus River is actually artificially disrupted to an extent of 170Km between the Alcântara and Belver dams. In order to ensure the

minimum quota exploitation needed to operate its several dams (in Portugal as well as in Spain) while maintaining an adequate balance with its ecosystems, the Tagus requires the mechanical control of its capacity and the international management plan set in place.

The registries at our National Information System for Water Resources (SNIRH) can help us to simulate the variations in the river flow in order to determine the debits and times that affect the areas of study. This will enable us to better grasp the correlations between the different levels of the river depths, and ultimately to secure an access to some of the rock carvings in summer.

By using the valuable cartography of Filipe Folque (1886) and intercrossing it with several archaeological vestiges previously identified, we will be able to inventory some of the land routes and link them to our case studies. Secondary help can be obtained by studying the military cartography records, in particular as regards to the ancient roads and “caminhos de pé posto” scattered throughout the area, which may reflect the habits of the successive communities and populations.

Works such as “Estudos Cronográficos Physicos e Hydrográficos da Bacia do Rio Tejo” (1861) by M.S. Júlio Guerra, allow us to gauge the river environment before the filling of the reservoir and to reassess the navigability of the Tagus, once planned until Toledo.

To use three-dimensional models generated from digital cartography provides a series of morphological and geographical interpretations, difficult to achieve by other means. These models make it viable to visualize the territory, reducing it to its primary essence without overlaps or changes due to the passage of time.

We chose to make three digital models, M1, M2 and M3 (shown in fig. 1), defined by rectangles of 5,000 X 10,000 meters, crossed in a diagonal line by the course of the Tagus. In these rectangles we located the sections and archaeological sites under study with the intent to examine - and possibly redesign - their correlations to geo-reference a fundamentally natural core.

It will be essential to conduct surveys locally to determine the composition of the existing stratigraphies, which will allow us to explore solutions for the infrastructures specific to each type of terrain. These surveys must be based on the geologic-geotechnical characterization of the terrain, followed by tests of dynamic penetration to be analyzed by a team of sedimentologists at the university Nova of Lisbon and included in the plan of stability of the structure to build.

The same procedure must be used in analyzing the layers of sediment on the submerged rocks, to appraise its degree of preservation, after four decades of being underwater.

Lastly, but not excluding future approaches in the context of this intervention, we will extend our inquiry by gathering information, at the biophysical and cultural level of the territory, so as to diversify and broaden the myriad possible readings corresponding to each and any of the different scientific areas.

work in progress

The program of patrimonial and educative valorization designed by Dr. Luís Raposo⁴ for the archaeological site of Foz do Enxarrique is based on the proposal for the creation of a museum center, directly affiliated with the classified site and combined with an “excavation-school”. In the national scene this is an innovative approach, intended to be a continued practice of fieldwork with essentially training purposes.

The plan includes a sectioning of two existing terraces, which form the archaeological sector, as shown in fig.2.

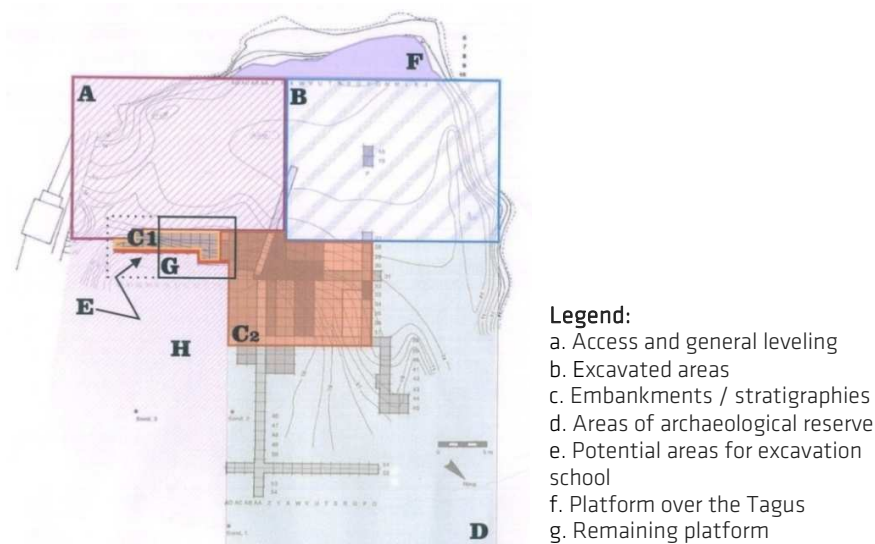


FIG. 2 Site plan of Foz do Enxarrique, indicating the different areas of intervention. Dr. Luis Raposo.

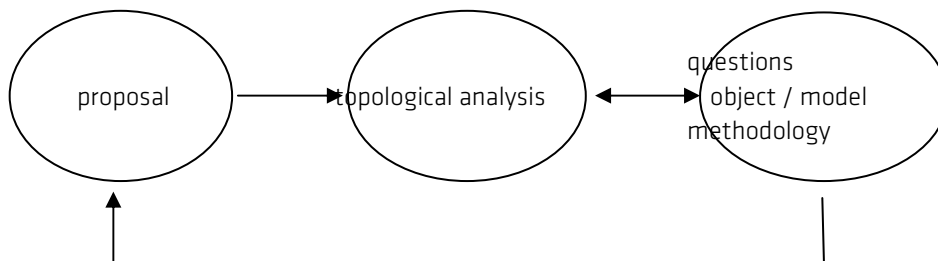
Our research is built upon a program previously established in an area of considerable historic and patrimonial nature, with unusual and unique features. It is especially

⁴ Luís Raposo, archaeologist, National Museum of Archaeology, project diretor. Dr. Raposo has accompanied the excavations at this site since the 80s.

remarkable for the privileged localization of the site, given the proximity of the reservoir and the visual perspective that it affords over Portas do Ródão, classified as a Natural Monument.

Thanks to the design of the proposal, the intrinsic significance of the site, and the increased value of the architectural undertaking, this project is viewed as a “laboratory”: the place as the subject, not the object, bringing, besides a clear element of enjoyment, a rehabilitation evocative of the identity of the place.

The opportunity to validate a theoretical model of in-project research by means of a concrete proposal will give us a threefold advantage: to experiment in design, to correct methodological strategies and to gradually improve and refine the theoretical model. The dialectic initiated between the model and each specific proposal will create a medium through which we are able to actualize the topology analysis, further adding to the relevance of the proposal.



GRAPHIC. 1 Theoretical model to implement

The place of intervention presents itself as a platform of irregular surface, of about 700 m², with a rectangular outline, probably the result of archaeological excavations in the region executed between 1982 and 2001.

In the section of the excavated areas identified in the plan with the code C1 and C2 (fig. 2), immediately adjacent to the existing embankment, we will preserve the excavations as they were left. A few square areas will be deepened in order to easily provide the visitor with a visualization of the methods of excavation used, as well as to make it possible to view the bedrock and its successive fills, up to the base of the archaeological level.

A section of this area will be surrounded by a platform built in such a way as to facilitate its viewing as well as to observe the stratigraphic profile at the rear, indispensable to preserve in order to make the visitor aware of this reality.

The cleaning and general leveling of the embankment in the vertical plane will

highlight the micro-stratigraphy. The archaeological horizon that encircles the most basal of these beds should be particularly displayed and, when possible, keeping in situ some lithic artifacts and bone pieces.

At some point of the profile thus obtained a vertical track explanatory of its stratigraphy will be set in place describing it from the sedimentary, archaeological and chronological perspectives. This stratigraphic embankment should have a built-in structure specifically designed to protect it from the rain, as shown in the plan with the code G.

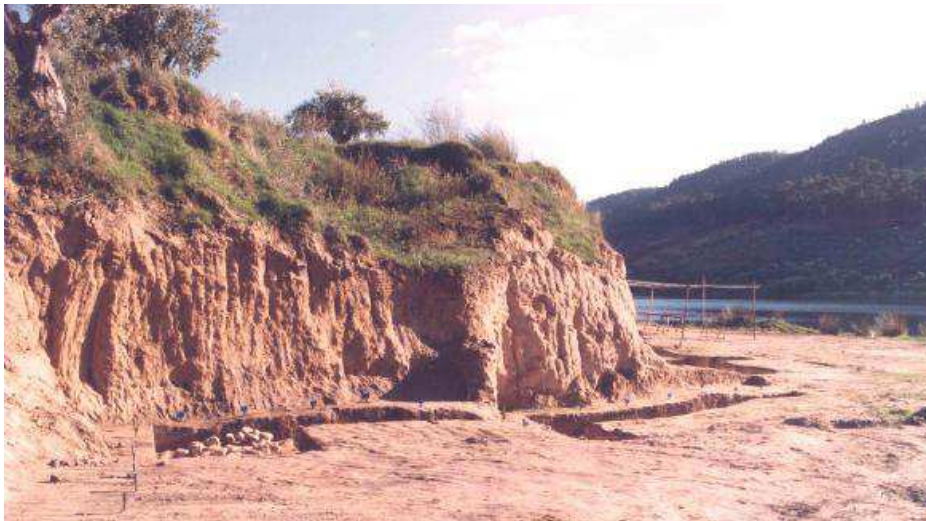


PHOTO 2. Sedimentary terraces and archaeological prospection in sector C1, s.d, Source IGESPAR

From the outset this project envisions to devise a protective structure where an actual archaeological excavation evolves in a confined and controlled atmosphere, although open to the public. This structure should provide an external access to a covered platform raised in order to provide a bird's view of the entire space and, at the same time, of the excavation going on at the base of the slope.

Some examples of foreign interventions in areas with similar characteristics as the Foz do Enxarrique



PHOTO 3- 4. Olorgesailie (outdoors site), Lower Paleolithic, Kenya



PHOTO 5- 6. Archaeological Centre , Castelo de São Jorge (João L. Carrilho da Graça) Lisbon



PHOTO 7- 8. La Micoque (shelter under rock) France

In the references here introduced we witness structures manifestly distinct, dictated

by the requisites determined by the protection and preservation of each archaeological site and the degree of exposure and promotion intended. The site of Olorgesailie, by introducing a circular path raised above the level of the ground, enhances the dynamic and conducive interaction between site, subject, and area/museum.

The outline of this project took in consideration the references presented here, the constraints of the place, and the program endorsed (normal procedure in the practice). Nevertheless, beyond this practical viewpoint, what we are ultimately interested in defining is a methodology for the design of a conceptual prototype, liable to be adapted to similar sites.

As a preliminary proposal for the site of Foz do Enxarrique, we mean to introduce in the embankment a cubic structure that will be the main focus of the area/museum, designed to protect and contain. The difference in elevation between platforms is resolved by the construction of a small amphitheater.

The remaining surrounding platform is intended to serve multiple purposes and must be subjected to the respective adjustments, as part of the landscaped surface.

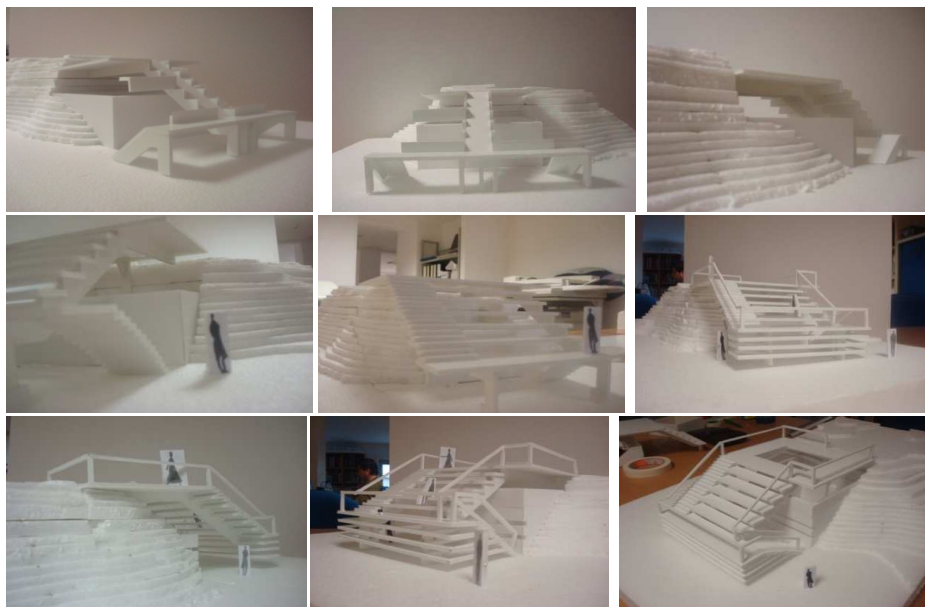


PHOTO 9. Study models and volumetric relations. Foz de Enxarrique



FIG. 3 Proposal of spatial planning , architect José Manuel L. Pires

Design intent

We used the concept “architectural design research” to authenticate a theoretical model designed to be applicable as well adaptable. Our object is to confirm that, when faced with a certain problematic, the reading of the discipline brings about an added value.

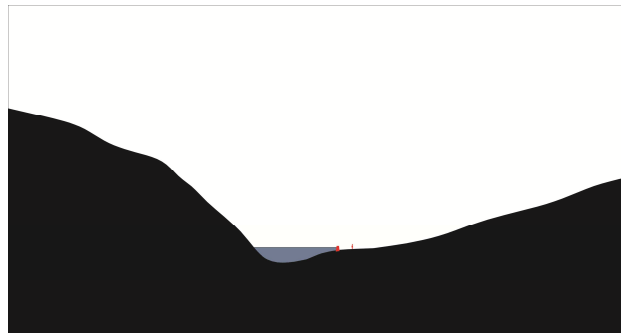


FIG. 4 Graphical representation of river section with the introduction of a caisson



FIG. 10-11 Detail of existent caisson and overview Cachão do Algarve, with delineation of core rocks identified, (1973) . CIARVT

Cachão do Algarve is the area that holds the highest concentration of geometric figures per panel, grouped in large sets, located in the middle section of this site.

The caisson built to control the river current and feed the local water mills restricted the number of carved rocks, as shown in the photograph taken before the filling of the reservoir. However, the re-introduction of a vernacular way of building makes the prospect of applying the process under study to other accessible archaeological sites a practicable reality by designing, in situ, a network of places apt to be visited during the season of low river flow.

To take advantage of these preexisting conditions it appears to us as a natural and optimal opportunity to submerge seasonally one of the most iconic emblems of the rock art complex in the Tagus Valley. If we consider altering the quota crown about 2 to 3 meters, the reconstruction of the Rock Art complex of the Tagus Valley would be challenging but viable, transforming this into a unique and prized site.

As Emmanuel Anati proposes in 1974, after visiting the Tagus Valley: "If the prehistoric man made offerings to the river god for the level of the water to raise, it would be good if, at least once a year, the reservoir water level could go down, allowing its banks to welcome a veritable festival of culture which would attract, no doubt, all the major archaeologists and historians of the world". (Caires, 1974, p.32)

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