"The Cultural Landscape of the Alentejo Pyrite": What's Next?

Marta Duarte Oliveira and Jorge Tavares Ribeiro

Abstract In Portugal, the recognition of "Cultural Landscapes" is due to the UNESCO category. Many of the local and regional initiatives aims this classification, which are majority disregarded due to unfulfilled and thus abandoned, resulting in lost opportunities. Understanding the territory as a rhizome in which architectural heritage is the catalysing element, despite its density or its expectant value, is the research's core.

Taking as premise the European and North American proposals and projects of Cultural Landscapes that revitalized ancient industrial areas and their role within a new international paradigm of territorial development and planning, the research was developed from four Alentejo mining sites—Lousal, Aljustrel, S. Domingos and Pomarão—which embody the proposal of the Cultural Landscape of the Alentejo Pyrite. From the common and specific analysis of evolutional, geographical, urban, architectural and heritage contexts, it is presented the structural, classifying and compositional synthesis of the public, semi-public and dwelling spaces, which underlie the proposal's contexture. This paper reflects upon the future of this body of work from the academic scope to being operative in the public planning sphere and regional/local interventions.

Keywords Cultural landscapes • Mining architectural heritage • Alentejo region

JEL Classification N54 or O21 or R58

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1 Introduction

This paper results from a PhD research, which had as premise the territorial understanding of heritage towards a prospective view, regarding the particular context of Portugal.

The proposal of "The Cultural Landscape of the Alentejo Pyrite" revolves around four mining sites—Lousal, Aljustrel, S.Domingos and Pomarão (see Fig. 1).

It promotes the need to change the current paradigm within the Portuguese scope, regarding not only the definition of heritage but preservation and planning tools as well: "In the national (Portuguese) scope, the recognition of cultural landscape as a concept is due to UNESCO (1972) classification of some portuguese landscapes, namely Sintra (1995), Alto Douro Wine Region (2001) and the Landscape of the Pico Island Vineyard (2004). In fact and despite that when compared to other international experiences previously mentioned, other territorial project such as Portugal Historic Villages (1994/5-2002), Xisto [Schist] Villages (2001–2006) and the Patrimonial Park of Mondego River (2007–) can be acknowledged as cultural landscapes proposals—the national (Portuguese) paradigm—for international visibility or ecomical and political reasons, is practically centered on UNESCO experiences. Many of the local and regional initiatives ambition is this classification, which generally is not obtained for unfullfilled singularity requirement, resulting in lost opportunities (as happened to an application related to the proposal that this paper concerns)" (Oliveira & Ribeiro, 2014).

2 Literature Review

The previous considerations are slightly addressed on recent institutional documents (MAOTDR, 2007; MAOTE, 2014), but because of their generic nature, there is still a methodology urgency, which the proposal aimed to address and convey from the beginning. Also, the fact that the mining cultural landscapes have been almost confined to the domain of other disciplinary scopes, namely geological (Matos et al., 2010) environmental (DGEG & EDM, 2011) and sociological (Alves, 1992, 1997; Alves & Martins, 2005; Rodrigues, 2005, 2013), rather than architectural or urban with the noted exception of Carvalho (2009), makes this work an example of a new voice of understanding.

3 Methodology

Due to concision issues, this paper and work research is structured as followed:

• Context: presentation of the mining sites regarding its common identity, which is based not only in sociological and geological aspects, but as supported by the

Fig. 1 Classified
Portuguese Heritage (built
and natural) continental
map: geographic
localization of the cultural
landscape proposal and
respective mining sites.
Author: M.D. Oliveira from
MAOTDR, 2007 and
ICNB 2010



research and respective morphological analysis, structural and compositional synthesis main considerations;

- Global synthesis of the proposal and respective methodology, which can be valid for other similar proposals and are presented as a part of the results of the research;
- And finally, the conclusions that are more remarks on what is the future for the proposal.

3.1 Context

Lousal, Aljustrel and S.Domingos/Pomarão have a common geological origin, the Iberian Pyrite Belt (see Fig. 1) which has an extension of 250 km and approximately 30–60 km wide, from the north of Grândola (Portugal) and the nearby Seville (Spain). Despite the existence of this common geological "cord"—which was defined as "non apparent structured area" (Oliveira & Ribeiro, 2014) related to natural conditioning elements, that as the name indicates, are not visible to the naked eye and yet influence the design, amongst others, of different types of territorial proposals as studied—there are other proximity factors between the sites such as paternalist ideals or the toponymy.

The introduction of paternalism occurred on different stages for the mining sites in discussion as they have different dates of origin and terminus (S. Domingos/Pomarão, from 1858 to 1966; Aljustrel, from 1867 until today as currently active and Lousal from 1900 to 1988). As it happens with industrial cases, these ideals are entailed to figureheads of the respective exploring companies (with the exception of Aljustrel that presents no bibliographic highlight that can support this claim; despite the observance of a paternalist concern related to housing and community facilities).

Regarding the studied sites, this paternalism has endured beyond the closure of mining activity and installations as the companies maintain the property rights regarding their estate and concessionaire areas. Even in the case of Aljustrel that has been explored by four distinct companies, there is a sense of continuity and proximity to the locals. Both S. Domingos and Lousal have a visible parallelism regarding chronological events that are rehabilitation intents, sensibly, from the 1980 to 1990. In all the mining sites there are still being done legalization/donation processes of the mining neighborhoods, by the companies to the municipalities or/and to the population (former employees and respective heirs), which conveys the contemporaneity and pertinence of an ample reflection about Portuguese mining landscapes.

3.2 Synthesis of the Morphological Analysis

The morphologic analysis was structured as follows: (a) administrative and geographical contexts of the four sites as a whole and (b) urban and heritage contexts of each of the three mining sites (S. Domingos and Pomarão were treated conjointly because they have the same origin and belong to the same mining complex). Regarding the urban context, the details of the mining neighborhood is due not only to the research domain—architecture—but also, their importance in the agglomerates composition and therefore its territorial understanding. The sites are presented not accordingly to antiquity but from geographic orientation from west to east (see Figs. 2, 3 and 4).

The existing researches and respective approaches related to these mining sites (as isolate entities) are mainly from other fields of knowledge, which are not suitable to construct and convey a common syntax defining a territorial system, from local to regional, based upon the morphological elements observed thus abridged and classified.

CHARACTERIZATION	TOUSAL	ALJUSTREL	S.DOMINGOS	POMARÃO
Territorial expression (system)	Unit	Unit	Combined units within a common sub-system of the territorial narrative	territorial narrative
Site composition	Combined (linear & disperse)	Combined (linear & 2 internal and concentrated centers) Combined (linear & 3 internal and concentrated centers)	Combined (linear & 3 internal and concentrated centers)	Linear
Spatial centers and their nature	2 developing areas: mine site and museum area (equipments)	2 centers, S.João e Algares, village developed inters- 3 developing sectors: former English neighborhood, tirially (fundamentally industrial)	3 developing sectors: former English neighborhood, workers villages and mix ares (housing+ equipment)	Development related to the port
Structural avenues	(2)	(2)	(0)	(1)
		PUBLIC SPACES (Most Representative)	sentative)	
FORMAL/INTENTIONAL				
A.Central square (formal)				
A.1. Square (plaza)		Praca de República		
B.Square		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Ð	
		Largo 9 de Abril Largo do mineiro Largo da estação	Largo do Coreto (Bairro inglés)	
REMINISCENT SPACES				
C.Simple			is the state of th	
D. Resulting spaces near referential buildings	Associated to the museum hand former GNR			
	Associated to the Associated to the thrust and montany actual market		Largo Centro Republicano Largo do Mercado Velho Largo do Mercado Novo Largos da Igreja e Correios	
E.Interstitial spaces (neighborhoods)	1. Between block/quarters(simple) THE a expressive (dimensions) ex. Bairro da Direcção	1. Between blockquarters(simple)	1. "Rua-páiro" (straight) 1. Street (curve shaped)	"Rua-pátio" (straight)
	2. Between blook/quarters (combined)	1.1. Behwen blockquarter (access to a commonificial ayard)	(ex.R.Changa e Guadiana) 1.2. Expressive intensitial space (after 1950s)	

Fig. 2 Sites morphological analysis: singularities and complicities. Author: M.D. Oliveira supported by graphic data provided by GTG, CMA, CMM (Lousal, Aljustrel and Mértola Municipalities Planning Divisions, respectively. The classification of the S. Domingos spaces respects the Carvalho (2009) work)

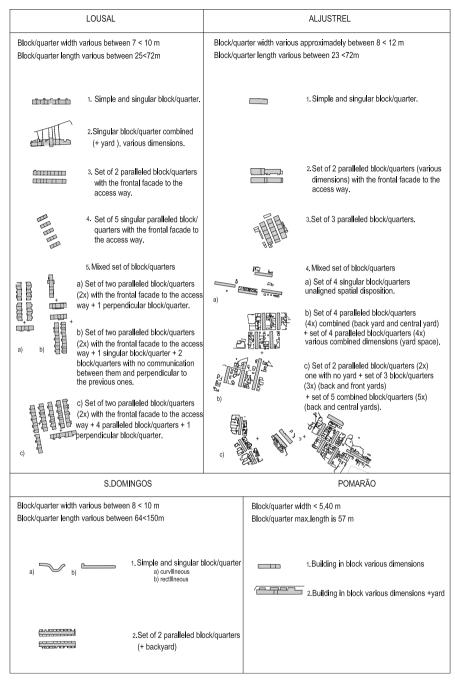


Fig. 3 Workers neighborhoods: definition in blocks/quarters (composition and spatiality). Author: M.D. Oliveira supported by graphic data provided by GTG, CMA, CMM (Lousal, Aljustrel and Mértola Municipalities Planning Divisions, respectively)

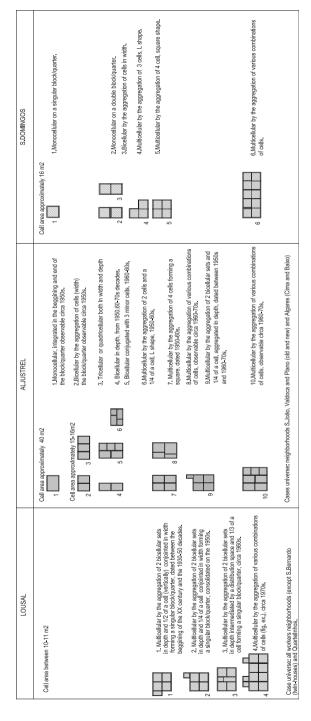


Fig. 4 Workers neighborhoods: modular composition. Pomarão was not included due to the absence of existing data. Author: M.D. Oliveira from GTG, SAPEC and ALMINA archives, Carvalho (2009)

This is particular relevant as it is considered necessary simultaneously to address interdisciplinary issues as well as provide a methodology that has an effective expression in the territory. The previous analytical synthesizes assert that, beyond their particularities, there are spatial similarities that allow a common classification of the existing structuring spaces of each site, thus supporting and establishing the whole contexture as a "Cultural Landscape of the Alentejo Pyrite".

More importantly, it also provides the grounds for a proposed methodology for the design of "cultural landscapes" beyond UNESCO and biding to the expectancy of valorization and enhancement of ordinary territories.

3.3 Results

For the conception of the Cultural Landscape of Alentejo Pyrite were considered the following methodological items:

- Cultural Landscape conceptualization and the definition in particular of mining landscape, which is focused on typological characterization rather than focused on theme. Most definitions of cultural landscapes and even when subcategorized are lacking of an operative dimension (Bustamante, 2008). It was considered that this phase must precede the reading and the territorial analysis as it establish and convey the common ground to both interdisciplinary and cooperation between municipalities that integrate the proposal—Grândola, Aljustrel and Mértola.
- Scope/morphogenesis definition derived from the territorial reading and classification as a "non apparent structured area" that provides the general delimitation of the proposal as a consequence of the geological infrastructure. This assessment is just a preamble as it is only justified and/or reaffirmed by the analysis presented on 3;
- Design of the proposal physical structure: system definition as multinuclear that derivate from a particular "chrono/topos/logos" (Oliveira & Ribeiro, 2013) of the mining landscape, obtained by:
 - Historical documentation and respective chronology of events of each of the sites that allows not only their origins and evolution context, but also eventual parallelisms on more current events mainly local concerns regarding rehabilitation;
 - From the existing iconographic and graphic data (some inedited and or recovered for the research proposes) it was established the morphological and structural base of each site allowing an interpretative synthesis and above all of common morphological elements and events, integrating the narrative and contexture of this particular territory. In this sense, it distinguishes itself from a more traditional inventory—although it is a consequence of an inventory—constituting a unitary catalogue/cartography.
 - Regarding the proposal, there was a restatement of sites that had a geographic expression from the get go. The research also allows the definition of criteria

for the inclusion of other sites from the Iberian Pyrite Belt¹ as it was systematized for current sites;

Concerning the narrative construct, associate the assessed interpretative elements resulting from the morphological approach to the Pyrite Route² (Matos et al., 2010) which resumes a geological heritage approach, as well as the sociological one and the existing interpretative centers. This kind of route constitutes the backbone of a cultural tourism initiative in which the incorporation of the architectural input could only increase. Its interpretation should also be based on present resources:

Existing infrastructures as the mining railways or "reference-elements" as designed by the research of each site, the water deposits and fountains (Lousal), windmills (Aljustrel) and collective ovens (S.Domingos/Pomarão). Despite the fact that these elements have not a particular industrial nature, they constitute the permanence elements in the respective evolutional analysis. In the case of their association with "belvedere spaces" (as identified on the Oliveiras neighborhood, Lousal—see E.2 on Fig. 2), it is important to clarify if they are intern/extern to sites;

The public space expression as systemized as public spaces (Fig. 2) and semipublics (Fig. 3) and private/cellular (Fig. 4) present on these 30 neighborhoods. In the case of public spaces besides the already mentioned classification, it was identified particular character spaces according to typological criteria (associated with reference buildings or its particular position within the site) and social-historic criteria (associated with collective rites and signs);

Regarding paths it was distinguished between the ones with historical character, remnant or allusive from the others, due to the verified informality within the sites:

Isolated elements and/or with interpretative possibility as viewpoints (such as the hermitage of Santa Teresa in Pomarão) and if they are intern/external to the sites;

Rites or other tangible or intangible elements of collectiveness.

The designation of "Cultural Landscape of the Alentejo Pyrite" has the agenda of territorial characterization and valorization under a global image that has the reflexive contribute provided by the research the ultimate goal a prospective image (from analysis to a operative image of the whole). Still regarding the product/global image it is considered that color provides and identity reference element, the consensus between walls solely white (as verified at S.Domingos) or with yellow

¹ For example, Spanish agglomerates or even other satellite sites of variable scale (as the Faleiros neighborhood in the case of Lousal or, for instance, other integrating sites of the S.Domingos mining complex).

² This route has equally the value of presenting a cross-border potential regarding the territory reading, each site can be analyzed according to the provided classification established by the analysis presented on 3.

trims (associated with the Alentejo region) or blue trims (associated with mining housing). It is essential for a clear identification of the proposal sites.

Equally, the designation provides the general theme of the proposal, however it can integrate sub-themes considered of the same nature or complementary (as analyzed on other Portuguese proposals). This distinction is a key to the proposal integrity and respective interpretation. In the case of sites that already integrate the proposal, for instance, there is a sub-theme of similar nature with the recent classification of S. Domingos/Pomarão as a part of a Public Interest Ensemble (PCM, 2013).

Therefore the theme/project units are:

- (a) Lousal: from topographic particularity (1900). It is thus enhanced the fact that the workers are implanted on higher ground opposite of what it is common on industrial settlements. The Oliveiras neighborhood "belvedere space" provides an additional aspect of composition;
- (b) Aljustrel: The continuities within the ever-changing territory (1867). It was considered that the site is not functionally closed as the mines are still active but the existing neighborhood provide as permanence events (see Rossi, 1966, 2001) although they are not of particular excellency;
- (c) S.Domingos/Pomarão: From the mine to the Guadiana River (1858). It is thus reinterpreted the already mentioned classification as a Public Interest Ensemble introducing these sites on a more late territorial narrative;

Nevertheless the found common traced elements, each site represents in itself a specific spatial composition: Lousal, linear and dispersive; Aljustrel combined (linear and polarized, aggregated by an existing site prior to the mine settlement); S. Domingos combined (linear and with three internal nucleus beyond the intrinsic polarity of the mine pit) and Pomarão, linear due to its fluvial port characteristics.

Each of the four agglomerates has local rehabilitation initiatives that the proposal aims to elevate to the regional level, duly supported and institutionally recognized an urban plan, in this case a inter-municipality plan which is the Portuguese planning frame more suited.

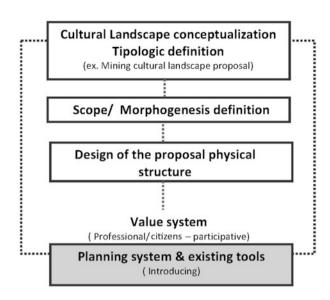
4 Conclusion

"Cultural landscape", both as a concept and as a territorial project, should be further discussed by the various areas of knowledge that intervene in the territory, so that it can address to the present issues regarding landscapes which are often fragmented and absent of meaning. Heritage can play an important role if it is thought systemically within its context, constructed by a supported morphological contexture (see Fig. 5).

Regarding the proposal it is considered the future research based considerations:

 Promote the participated discussion related to the conceptualized proposal of Cultural Landscape with the various participants, regionally and nationally;

Fig. 5 Methodology diagram: concept and proposal definitions consequent introduction in the existing planning system (plans and heritage classification values reevaluation). Author: M.D. Oliveira from GTG, SAPEC and ALMINA archives, Carvalho (2009)



- Develop an Inter-municipality Plan and respective management (as previously stated) in which the communities and respective mining companies are also involved:
- Articulate this Plan with the existing Municipal ones and in the case of S.
 Domingos/Pomarão, incorporate the existing Safeguard Plan in this strategy;
- Deepen the study of regional satellite nucleus and Spanish, with the generic common cord provided by the morphological event of geological nature that is the Iberian Pyrite Belt;
- Deepen the working relation with the Lousal Ciência Viva Center, initiated during the research, taking strategically advantage of its existence to establish in Lousal the introduction frame for the territorial narrative to be presented;
- In the case of Aljustrel, due to its current activity and respective evolution while having in consideration the research role and operative input for development plans.

All said and done, the research "what is next" can continue beyond the academic world as was intended from the get go however the question mark can not be denied as the paradigm only now begins to shift.

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