

# PEDRAS ANGULARES DA MEMÓRIA CULTURAL: DA ESTRUTURAÇÃO DA PAISAGEM RURAL

Milena Andrade Dneboská

Universidade de Évora, Deptº de Planeamento Biofísico e Paisagístico, Colégio Luís António Verney, Évora

Key Words:

**Memória da paisagem, paisagem cultural, estrutura da memória, espaço rural**

Abstract:

1. As novas funções exigidas das paisagens hoje, em conjunto com a necessidade de preservação dos seus valores, levantam a necessidade do conhecimento profundo das paisagens e das exigências dos seus utilizadores para uma nova forma de gestão e intervenção.

2. As estruturas de organização tradicional do espaço rural estão hoje a dissolver-se rapidamente deixando a paisagem pouco compreensível para os seus utilizadores. As exigências de novas funções levam muitas vezes a um desenvolvimento para os novos usos, poderia basear-se na estrutura das componentes de sua memória.

3. Como a memória da paisagem entende-se a capacidade de paisagem manter suas formas e identidade ao longo do tempo. A memória cultural centra-se nas componentes dentro das paisagens especialmente influenciadas pelo homem.

4. Supõe-se a existência duma estrutura que condiciona a composição e evolução do carácter da paisagem ao longo do tempo. Esta estrutura permanece na paisagem desde um tipo de uso e aparecia para o outro, suportada pelas suas componentes estruturantes – pedras angulares.

5. Enquanto se modifica uma grande parte dos aspectos da paisagem, as pedras angulares e suas ligações mantêm a memória da paisagem, transpondo assim a identidade e carácter desta.

6. As pedras angulares encontram-se na realidade da paisagem – no entanto as suas ligações funcionais e simbólicas, assim como o significado, estão preservados na memória colectiva dos utilizadores da paisagem. A sua identificação é possível através de estudo do terreno, da documentação histórica e da relação dos utilizadores com a paisagem.

7. As pedras angulares são os elementos concretos, a estruturada memória da paisagem é uma construção compreensível apenas na abstracção.

A complexidade desta estrutura é sempre maior nas paisagens intensamente vividas e com uma história longa de interacção humana, como é caso das paisagens mediterrâneas.

8. O reconhecimento da estrutura da memória cultural da paisagem deve ter o impacte concreto para a manutenção do carácter, da sua identidade e integridade. Deveriam ser privilegiados os eixos de desenvolvimento das paisagens que respeitassem tanto as concretas pedras angulares como a estrutura identificada.

9. O estudo de caso da paisagem do vale semi-aberto no Norte Alentejano desenrola-se em redor da parte inicial do rio Ribeira Grande. Numa colina sobre a ondulação da ribeira encontra-se a povoação Monforte, cuja população são os utilizadores mais importantes da paisagem estudada.

A procura de elementos estruturantes da memória da paisagem abrange tanto a realidade histórica como actual. A parte não menos importante é do entendimento funcional e de importância ao longo do tempo assim como transmitida pelos utilizadores desta paisagem. Identificam-se 22 pedras angulares e 8 ligações, que representam a estrutura da memória da paisagem no presente devem servir de base para o seu desenvolvimento futuro.

10. A identificação da estrutura no terreno, permite desenvolver uma estratégia de gestão baseada nos sítios e elementos identificados como “pedras angulares”, respeitando assim a organização espacial característica, enquanto implementando as novas funções e usos à paisagem.

O estudo caso identificou a existência desta estrutura numa escala local. Levanta-se a questão da sua existência, verosimilidade e possibilidade de identificação numa escala menor.

# ANGULAR STONES OF THE CULTURAL MEMORY: STRUCTURING RURAL LANDSCAPE

Milena Andrade Dneboská

## Key words:

Landscape memory, cultural landscape, memory structure, rural landscape

## ARTICLE OUTLINE

- 1.1 Landscape changes and functions
- 1.2 New functions and demands on rural landscapes
- 2 Preservation or transformation
- 3.1 Structure and identity
- 3.2 Ecological structure and sustainability
- 3.3 Cultural Structures and Sustainability of Landscape
- 4.1 Landscape memory
- 4.2 Cultural memory structure
- 5.1 Ribeira Grande study – localization and method
- 5.2 Ribeira Grande study – results
- 6. Conclusions

## Introduction

The speed of today's society and its omnipresent stress creates new exigencies on its environments. Together with demands on recreation, material well being and comfort, deep restlessness and disorientation of stressed souls ask for the harmonious, symbolically and meaning rich places for the recovery of mental balance. Not only demands are changing, but also landscape itself is undergoing severe transformations.

Traditional rural landscapes were in European context considered the harmonious environment/place of mental and physical recovery of 'depressed citizens' souls'. But their traditional characteristics are changing in a speed which threatens ever more people (Antrop 2005b)

### 1.1 Landscape change and new functions

Agricultural production is no more having the privileged position of essential supporter and landscape pattern creator. The ecological, heritage and aesthetical functions have been gaining importance and recognition in all rural areas. However a clear articulation and collaboration among economical exigencies, ecological demands, heritage preservation and leisure uses is still missing.

The growing movement of population – back into rural zones seeking for the harmonious environment, doesn't equilibrate the landscape, but means another source of its stress. It often means new structures, but not always preservation of the existing values, so

appreciated by the new comers (Berg & Wintjes 2000). This pressure also reveals in shifting territorial structures, patterns and landscape mosaics.

## **1.2 New demands on rural landscape**

New functions and uses asked from landscape are the inevitable confirmation of the more hedonistic attitude of society towards the present landscapes (Buijs 2003). In various places new functions have been already incorporated, but in others only start to appear (case of studied area). However their correlation with existing landscape structures is not easy.

Traditional landscape mosaics are threatened by disappearance due to new exigencies on landscape and new structures implied in their application. This process is similar but not equal in all Europe. Together with increasing speed of landscape changes the relationship of men with landscape is being affected (Antrop 2000) proceeding towards the alienation of people from the landscape (Vos & Meekes 1999).

The simplification of patterns is accompanied by diminishing landscape accessibility and disappearing of whole complex of meanings (Antrop 2005a). Due to all these changes landscape loses the language understandable by people. It means that loses the memory preserved by its users needed for deciphering codes of its structure. Rather often even though the maintenance of landscape pattern on smaller scale is assured, its reasons have already vanished. That is the way the alienation from the original landscape identity happens. The reasons, functions and symbolism of spatial organization were the code enabling landscape legibility (Sádlo 1991). Due to its transformation and simplification, the orientation turns more complicated and personal attachment almost impossible.

The new more participative management approach is a clear necessity. The approach which would respect not only technical parameters but also the identity values maintained in the memory of stakeholders from each landscape.

## **2 Preservation or transformation**

*“Landscapes of the past cannot be brought back, but ways how valuable elements and areas can be preserved and become embedded functionally in the modern urbanized and globalized society must be studied.”*

Antrop 2003

The conservation of traditional landscapes known at minimum scale as being parts of rural museums is not the way for the most of the territory threatened by total transformation or disappearance. The problem lies in justification and functionality of the landscape pattern. When trying to recover the scenery leaving out the hard work, the social component dies (Lowenthal 1997). Results of these attempts can either collapse due to the atrophy of bygone memories in disuse, or they might end-up in the hollow landscape scene of false rurality, so called “historically authentic illusion” (Gustavsson & Peterson 2004).

On the other hand, while implanting new multifunctionality within the existing valuable landscape, the danger of losing its authenticity is always present. The questions concentrate on way how to implant new structures and at the same time maintain the authenticity of landscape (Lorzig 2001, Antrop 2005).

### **3.1 Structure and identity**

*“Cultural landscape need to be understood not only as the physical traces of human resource use over time, but also as sets of human beliefs and conceptions concerning the landscape”* Jones 1991

Incorporation of local stakeholders in planning process should bring clear ideas about the landscape components which are site specific and meaningful for its users and that way important to preserve.

The landscape identity identification and preservation of its bases then might be seen as a way forward. Such a way would preserve important characters of landscape while enabling development of the whole by preserving the supporters of landscape identity. It does not mean rigid preservation of material existence of the landscape mosaic and its functions, but enhancing key elements and reasons for their existence while introducing new functions on the identified landscape structure.

Identity appears as a possible way of preservation at the same time as permission of development while transposition of important values towards the future landscape. “If we accept management aiming at identity preservation, it should be concerned with the maintenance of a specific pattern of ecosystems within each landscape within continuing processes of change.”<sup>1</sup> But we should also consider reasons of such an organisation, pattern. Results of such a research might distinguish the most important elements, strong and important for the future landscape forms, and those which would not resist new uses.

As mentioned by many authors, there is a clear demand of ‘translation of landscape identity into physical planning and management’ (Voss & Meekes 1999), the identification of its supporting cultural memory structure might be understood as one of the useful planning supports.

### **3.2 Ecological structure and sustainability**

Ecological network is an enlarged concept of nature/culture complex within the urban planning of the beginning of 20<sup>th</sup> century. Later this model approached ecostabilisation of the whole territory by connecting separate nature reserves.

Since 1980 there have been created ecological networks in different countries: the similar networks are in USA called Green Ways, in Netherlands National Ecological Network and in Germany named Biotopverbundsystem (Löw et al. 1995). Different national network systems

---

<sup>1</sup> Pinto-Correia, T. 2000, *Landscape identity, a key for integration*, in: *Landscape our home* (ed. B. Pedroli)

exist within the European territory. Mainly in central European countries have been developed till rather complex territorial systems of ecological stability, an effective tool of landscape planning (Jongman 2004). More recently have been discussed the possibility of international collaboration and connections of networks since the local to the supra-regional level with the objective of the creation of pan-european ecological network on EU level (Jongman 2004).

The idea of ecologically equilibrated and sustainable territory assent on Forman & Godron's ecological matrix definitions of the stability and dimensioning of naturally balanced zones. Forman considers matrix the base of energy, information and materials flow in ecological context. *"Networks are composed of nodes and linkages (corridors) usually surrounded by matrix."*<sup>2</sup> The application of sustainability matrix concept is particularly effective on cultural landscapes with altered ecological balance (due to long and rather intensive human influence) but still with remaining islands of ecologically balanced (autochthon) nature. Connecting the existing elements and creating its missing steps, the ecological stability of territory increases. The network of existing ecologically balanced places is complemented by planning with the new centres and corridors up to the needed density (identified by local ecological conditions).

Ecological infrastructure can be seen as a framework for the future development and conservation (Walmsley 2004). Also other authors suggest ecological structure as a base on which should be build the new sustainability of landscape. *"We conclude that extending the ecological network concept with multifunctional indicators is a promising step towards sustainable landscape development and stakeholder decision-making."*<sup>3</sup>

On the other hand there often misses the connection among ecological and cultural structures within the landscape. However the ecological awareness is growing in design projects their integration with cultural and aesthetical attributes of the landscape keeps vague and disputed (Antrop 2005b).

### **3.3 Cultural Structures and Sustainability of Landscape**

While creating an ecological network of the territory, the ecological balance and sustainability is the first exigency. Similarly as the ecological network of landscape, there can be understood a net of cultural relations and meanings within the landscape.

The cultural layer of landscape is represented by a complex of symbolic and functional connections supported by concrete landscape elements and typical pattern. The landscape

---

<sup>2</sup> Forman, R.T.T. 1997, *Land mosaics, The ecology of landscapes and regions*, Cambridge (pag.257)

<sup>3</sup> Opdam, P., Steingröver, E., Rooij, S. van 2005, *Ecological networks: A spatial concept for multi-actor planning of sustainable landscapes, Landscape and Urban Planning (in press)*

identity is understood as complex of symbolical meanings connected to concrete landscape and preserved within the collective memory of populations related with the landscape.

*"Many places or elements in the landscape received a symbolic value. It contains the complex history of a place or region, which still can be read from its composition and structure."* Antrop 2005a

The supposition of existence of structure within the landscape which would reflect its historical and functional organization emerged especially after the aerial landscape archaeology studies revealed the persistence of some landscape features from one spatial organization to another. The consequent human occupation structures over the same territory are maintained in landscape also due to their localization and collaboration with the natural conditions.

The reciprocity of influence among cultural and ecological landscape structure has been already mentioned by landscape ecologists and archaeologists. This interaction often leads towards sustainable spatial organization repeated again and again in consequent human occupations, due to its identification in territory, in the so called 'memory of landscape' (Sádlo 1991, Sklenicka 2002).

#### **4.1 Landscape memory**

The ecological memory of landscape preserves the configuration of its ecosystems in state of ecological equilibrium, and the capacity of its maintenance or renovation after the exterior impacts, in so called homeostasis. It is related to particular ecosystems composition and ecological characteristics. The cultural memory, even though represented in territory, its big part lies in the collective memory of landscape users.

In certain types of landscape, this might not mean so strongly the net of concrete elements and their connections, but the typical pattern – the repeating mosaic and reasons of its composition are also cultural memory<sup>4</sup>.

In essay: "Does landscape have a memory?" two Czech landscape ecologists Brůna and Beneš (1994), identify two levels of landscape memory: tangible and metaphysical one.

The first, considered as archaeological, consists of several historic layers as grouped over the same space in time. The second level of memory is an ecologically-philosophic layer, representing permanent variability of landscape and repetition of landscape system structures.

---

<sup>4</sup> The repetition of patches in certain order and quantity which create the complex might be seen the case. As an example we might suggest the Douro landscape of vineyards on terraces.

From the reflection over the repetition of historical localization of elements and connections inside the landscape, appears the idea of a prevailing structure of cultural organization. On behalf of ecological network then appears a possibility of existence of a cultural network.

#### **4.2 Cultural memory structure**

Cultural memory of landscape as the complex of intrinsic cultural characteristics and values is believed to be fixed over the structure of elements and their connections present in the landscape. The meanings of such structure and connection are kept by the collective memory of its (landscape) users. It is believed that each landscape has its natural (ecological) and also a cultural memory.

Angular stones are the holders of meaning and structure stability of determinant kind of cultural landscape. They are the basic constructive components of the landscape memory.

These so called 'angular stones' are the elements, which generate the spatial organization inside the landscape, determine its cultural structure and coherence.

They can be also understood as special places and monuments which maintain a symbolic value and act as landmarks that allow men's orientation in space and time (Antrop 2005a).

And in certain way they correspond to remarkable element within the landscape which mark people so that they refer to them later on as to the places of special importance and affective relation (Oliveira, 2001; Dejmál, 2000).

The terminology of description was adopted from the architectural understanding of landscape. Angular stones are the basic constructive elements which stay in landscape over time while the overlaying appearance changes. They keep the spatial and metaphysical organization from one kind of occupation to another.

Authors of project Pathways to European Landscape mention the double existence of blocks of landscape construction – those of the material consistence and those of historical and cultural meaning. *"They are building-blocks of 'landscape', one of the key ways in which we trace the passage of time in our landscape and recognise the scale of human and cultural change affecting it."*<sup>5</sup>

Landscape archaeology knows landscape antecedents (Roberts 1987, Beneš 1993) or landscape dominants (Aston 1984) as elements that remain inside landscape from former uses and cultures. These antecedents predestine the localization of newer elements and the whole cultural structure.

The difference from landscape antecedents to angular stones is that angular stones are related to present kind of cultural landscape. When the whole of the landscape transforms, the angular stones lose their function as their contextualisation is lost, the structure

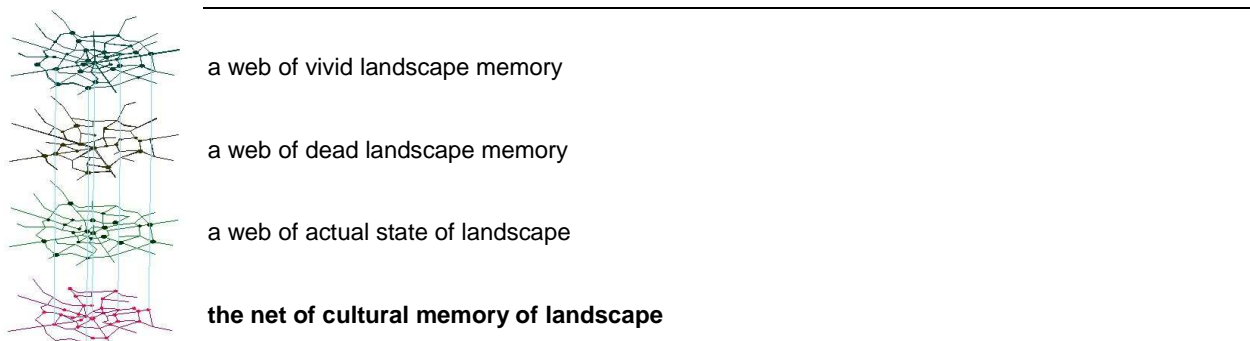
---

<sup>5</sup> Clark, J., Darlington, J., Fairclough, G. 2003, *European Pathways to Cultural Landscape*.



disappears. There might remain separate elements (landscape antecedents within new cultural landscape created), or whole structure might disappear or stay hidden. It means that the existence of angular stones keeps the particular identity of each one cultural landscape till the homeostasis brakes and the landscape changes into another one and its identity gets lost giving place to another, new identity.

In ecological processes it is similar to the transformation of one ecosystem to another, after breaking the limits of its resilience. Such a change normally occurs after the strong energetic impact from outside or when the abiotic conditions change substantially.



**Fig.1** Cultural net of landscape memory: its consequent formation and correlation of components. The elements repeated in all webs are connected with pale blue lines. The projection also indicates repetition of dominant connections within webs and its repletion in the final structure.

The memory structure of the cultural landscape was in this study understood as a spatial web composed by “angular stones of landscape memory” and their connections. The possibility of its identification and so confirmation on the local scale of its existence has been investigated in following case study.

### 5.1 Ribeira Grande study – localization and method

Qualitative research developed in rural landscape along five initial kilometres of the river Ribeira Grande and was realised as a part of the Interreg project for revitalisation of small water courses in North Alentejo and Extremadura.

The rural landscape lies in Monforte council, Portalegre district, Portugal. It is a very sparsely populated rural area with 8 inhabitants per square kilometer and with permanent population loss since mid 20<sup>th</sup> century, especially by emigration towards the littoral zone.



**Fig.2** Localization of study area.

The importance of agriculture has been diminishing in the last decades, but the lack of industry (13%) or bigger commerce means its still important position among employers of the zone (38%); just after the services, especially local administration (49%).

River Ribeira Grande once sheltered many water mills and had importance in fish production and as a water resource. Today the river is the back-bone of a rather arid sparse montado landscape; however its valley is not easily recognisable among the gently undulated territory. Its actual lack of stream allows some hesitations about its former importance and floods due to which the name “Grande” was given.

The investigation proceeded in three currents towards the landscape memory structure identification: a vivid landscape memory kept by the local population stakeholders; a dead landscape memory preserved by landmarks and historic documentation; and actual state of landscape, observed within one year time.

#### Web of the dead memory

The historical component of landscape memory was studied in parallel from accessible historical documents. It proceeded with three periods: roman, liberal and the period just after the cereal campaigns. For each period the historical image of landscape was composed. Other historic periods have not been considered due to their weak expression within the studied area and lack of documentation. From the mainly referred significant places, areas, monuments and connections within the landscape has been composed a web of the dead memory of landscape.

#### Web of the actual state

The terrain study described the actual state of landscape: its agricultural, recreational and other uses as well as its accessibility and a state of existing constructed components. Repeated observations in territory revealed traces of active use of some areas and vivid connections within the landscape. Important features represent the web of actual state of landscape.

#### Web of the vivid memory

The interviews of eight open questions searched for the relationship of local people with the river landscape: memories of its former life and functions, their actual use of landscape, and their expectations and preferences for the future use. The interviews centred on localization and number of places visited and considered most significant by each stakeholder.

The interviewed were of three types (tourists, different landscape users and population sample) and divided into eight characteristic groups searching the maximum variety. There

were realised 45 interviews (each of approximately 45 minutes) in the Monforte village and surroundings of Ribeira Grande river during the spring of 2004.

The qualitative treatment of answers resulted in identification and localization of the most important elements. It was followed by descriptive and cartographic representation of results. The content analysis was complemented by statistical treatment of the repetition of mentioned places supported by its spatial distribution.

These three representations (past, presence and future) have been compared and its most repeated components and connections represent the web of vivid memory of landscape.

Finally, the elements and places memorised and evaluated as most important by different stakeholders were confronted with elements of the dead memory web (historical documentation study result) and with the important elements in the present situation of the river landscape.

## **5.2 Ribeira Grande study – results**

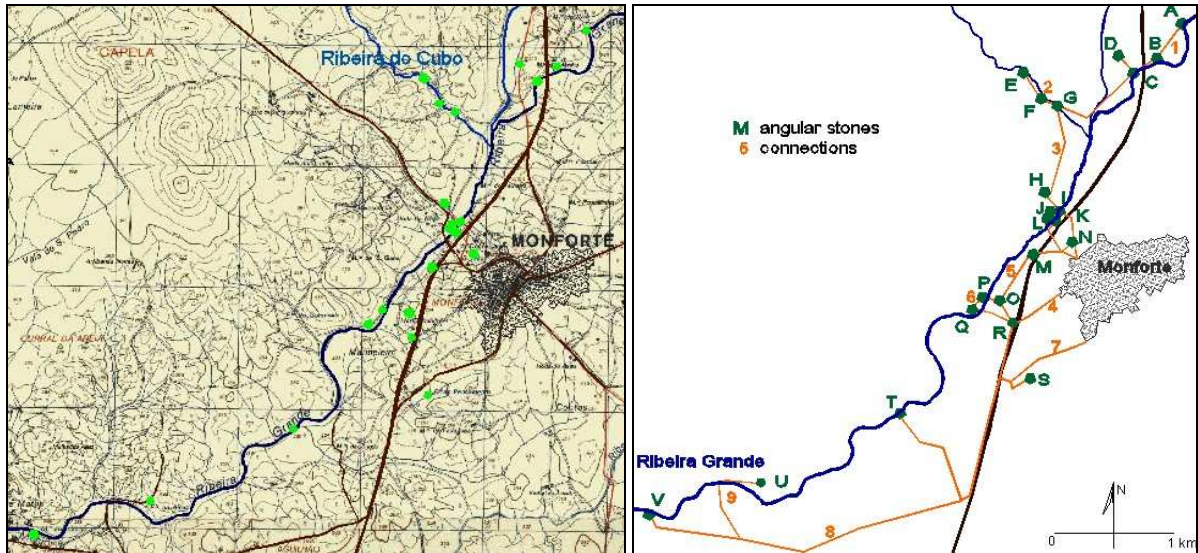
The former landscape use along the river is documented by ruins of various water mills, small bridges, etc. Other features connected to the water element such as vegetable gardens, wellsprings or orchards are in a state of clear loss of interest and abandonment.

Although the larger landscape pattern and image of Ribeira Grande has not changed much, the more detailed observation can reveal the diminishing of functions and uses of the territory, as well as the loss of more detailed mosaics. This change in land use is reflecting the changing attitude of people towards their landscape, increasing alienation and uninterestedness.

It is possible to determine the diminution of remarkable elements in landscape along the three nets of memory, especially in the initial part of the river.

Remarkable is the density of elements and connections close to the village inside the net of the vivid memory of the cultural landscape, not repeated in any other net.

Many of these connections were associated to former everyday life such as laundry washing at the river bank or fetching water at the wells.



**Fig. 3-4** Localization of angular stones and connections over the studied Ribeira Grande landscape.

The identification of the most valued parts lead to the proposal of protection and consolidation of determined architectonic elements along the river as well as places of special memory within the landscape. But within the result there was also included the suggestion for new functions implementation. As a part of the proposal, the concrete suggestions for each one of the angular stones were formulated, such as pre-disposition for new functions implementation or preferable ways of preservation.

There are 22 angular stones, of which 6 are springs and wells. Other 4 are old mills and 3 are small dams over the river. Historical documents such as the 'parish inquiries' from 1758 mention these elements together with small river bridges as important and valuable local patrimony.



**Fig.5** Ponte Velha – ruins of bridges over Ribeira Grande. Today without use but still important within the vivid memory of local stakeholders.

The utility reasons for visits to the landscape were prevailing in the past; nowadays more leisure activities such as pic-nics are important. For the future landscape use stakeholders suggested sportive, educative and recreation reasons, such as training, roman history circuit etc.)

## 6. Conclusions

Paul Claval (2005) comments that “postmodern landscapes are shaped by conflicting interest”; furthermore most of these interests are coming from outside the rural world. Visitors, locals and new settlers in rural areas have their perspectives on landscape use and

management; also other exigencies from exterior and interior of rural world influence the overall landscape appearance. The structure imprinted for centuries is though shifting...

Together with functional changes comes also spatial mosaic reorganization, loss of meanings and identity transformation. With fragmentation and disappearance of ancient landscapes, the new ones emerge (Antrop 2005b). The identification of cultural memory structure might help planning processes to proceed with change without losing landscape identity, its essence and comprehensive structure.

Angular stones within the identified memory structure are comprehensively in different states of preservation. This fact should be also considered in future interventions. Some of them need just consolidation, but others are now only memorised places, with almost no historical traces left. The first ones represent interpretation steps through the landscape while the second ones might be used as possible localization for new activities. This differentiated treatment should lead to the valorization of the present landscape.

In the particular case of the Ribeira Grande landscape, localization of new functions seeks to follow the spatial organization of identified cultural memory structure. Proposals of presented study suggested concrete interventions such as consolidation of several water mill ruins along the river, tracing of a new training circuit and a local history trail. These interventions should enable reading the memory structure and serve as steps for landscape interpretation. New functions suggested concentrate on non productive uses of land and aim at correlation with ecological exigencies along the river as identified by biophysical research.

This paper intent to be understood as a contribution to the local scale planning support. The cultural net identified within the studied zone can be easily followed and identified also down the river flow through the next municipality.

As a small drop this study might be a confirmation of the possibility of identification of the memory structure on the local level and a suggestion towards the future use of its network. Respecting the nets of ecological and cultural stability of landscape while applying new multifunctionality within its future structure on the territory, might help to create comprehensive and balanced landscapes, pleasing to live in.

## **Bibliography**

Antrop, M. 2000, *Where are the Genii Loci?*, in: *Landscape Our home*, (ed. Bas Pedroli), Stutgardt

Antrop, M. 2005 a, *Why landscapes of the past are important for the future*, *Landscape and Urban Planning* 70, (21-34)

Antrop, M. 2005 b, *Sustainable landscapes: contradiction, fiction or utopia?* *Urban and Landscape Planning* (in press), (digital version available at 24.6.)

Alumae, H., Palang, H., Printsman, A. 2001. *Cultural and historical values in landscape planning: Perception by locals*. Publicationes Instituti Geographici Universitatis Tartuensis, Tartu, (183-188)

Aston, M. 1985, *Interpreting the Landscape*, B.T. Batsford, London

- Berg, L. van den, Wintjes, A. 2000, *New 'rural lifestyle estates' in The Netherlands*, Landscape and Urban Planning N°48, (169-176)
- Buijs, A., Pedrolí, B., Luginbuhl, Y., 2003. *From hiking through farmland to farming in a leisure landscape: Changing social perceptions of the European landscape*. Submitted to Landscape Ecology, Nov. 2003
- Clark, J., Darlington, J., Fairclough, G. 2003, *European Pathways to Cultural Landscape*.
- Claval, P., 2005. *Reading the rural landscapes*, Landscape and Urban Planning 70, (9-19)
- Council of Europe, 2000, *European Landscape Convention*
- Dejmal, I. et al. 2000, *Kulturní krajina, proč ji chránit?*, Ministry of Environment of Czech republic, Prague
- Final report of Project EPCL 2000-2003. (European Pathways to Cultural Landscape)
- Forman, R.T.T. 1997, *Land mosaics; The ecology of landscapes and regions*, Cambridge (pag.257)
- Fry, G., 2004. *Culture and nature versus culture or nature*, in: The New Dimensions of the European Landscape, ed. Jongman, R.H.G., Dordrecht.
- Gustavsson, R., Peterson, A. 2003, *Authenticity in landscape conservation and management: the importance of the local context*, in: Landscape interfaces: Cultural Heritage in Changing Landscape (ed. Palang, H., Fry, G.) Kluwer Acad. Publishers, Dordrecht, NL
- Jones, M. 1991, *The elusive reality of landscape. Concepts and approaches in landscape research*, in: Norsk Geografisk Tidsskrift
- Jongman, Rob, H.G., 1995. *Nature conservation planning in Europe: developing ecological networks*, Urban and Landscape Planning 32, (169- 183)
- Jongman, R., H.G., Külvik, M., Kristiansen, I. 2004, *European ecological networks and greenways*, Landscape and Urban Planning 68, (305-319)
- Lorzig, H. 2001, *The Nature of Landscape (A Personal Quest)*, Rotterdam
- Lowenthal, D., 2000. *European Landscape transformations: The Rural Residue*, in: Understanding Ordinary Landscapes, ed. Groth, P. & Bressi T.W.,
- Löw, J. et al., 1995. *Rukovet projektanta místního ÚSES (=Manual for the designers of the local System of Ecological Stability Net)* in Czech, Doplněk, Brno
- Oliveira, C. 2001, *Lugar e memória (Testemunhos megalíticos e leituras do passado)*, Lisbon
- Opdam, P., Steingröver, E., Rooij, S. van 2005, *Ecological networks: A spatial concept for multi-actor planning of sustainable landscapes*, Landscape and Urban Planning (in press)
- Palang, H. et al. 2005, *Rural Landscapes: past processes and future strategies*, in: Landscape and Urban Planning N°70, p.3-8
- Pinto-Correia, T. 2000, *Landscape identity, a key for integration*, in: *Landscape our home* (ed. B. Pedrolí)
- Pinto-Correia, T., Vos, W. 2004, *Multifunctionality in Mediterranean Landscapes – past and future*, proceeding from conference: From knowledge of landscapes to landscaping action; in Bordeaux 2004
- Sádlo, J. 1991, *Krajina jako interpretovaný text (=Landscape as an interpreted text)*, Prague
- Sklenicka, P., Lhota, T. 2002, *Landscape heterogeneity – a quantitative criterion for landscape reconstruction*, in: Landscape and Urban Planning N° 57, (147-156)
- Vos, W., Meekes, H. 1999, *Trends in European cultural landscape development: perspectives for sustainable future*, Landscape and Urban Planning 46, (3-14)