

RULES AND METHODS FOR THE DEVELOPMENT OF A PROTOTYPE LANDSCAPE (ALMYRO) IN NORTH EVIA BY THE CREATION OF A THEMATIC PARK

G.-FIVOS SARGENTIS¹, V. SYMEONIDIS and N. SYMEONIDIS

¹ ECO-DOME, non profit organization (eco-dome.gr)
9 Astrapogiannou str. Athens, Greece
e-mail: info@eco-dome.gr

EXTENDED ABSTRACT

The area of Kria Vrisy in North Evia is a unique landscape shaped by Almyros river. Almyros river is 1,6 Km in length and comes from a place named "Mati" from where the river drained underground.

The altitude of the source named "Mati" is very close to sea level and the river has steady and laminar flow throughout the year. Therefore the river mouth is used for the anchorage of small boats. The depth of the river is not greater than 1,5 m, therefore being sufficient for the safe anchorage of small boats

The river has a very small water basin and with some infrastructures in the river mouth and there is the possibility of developing a tourist attraction riverside village.

Therefore there could be established a thematic park of interest in the bank of the river which could have the "character" of a small Venice.

The emphasis on character of the architectural-Infrastructures specifications which are planed to be built on the banks and the careful selection of the type of boat to be placed in the river, would lead to a sustainable development of this specific-profile unique tourist landscape.

This paper presents this unique landscape, the principles to implement this project by the study of the landscape, architectural design which is compatible with the character of the site, and a brief summary of environmental assessment study.

Key words: park, landscape, tourism, ecology

1. INTRODUCTION

It has been proven that the development of a site without a directing idea and a clear vision will lead towards the abuse of natural resources and is likely to underachieve its objectives (Hadjibiros *et al.*, 2005, Christofides *et al.*, 2005, Sargentis *et al.*, 2005).

Krisa Vrissi beach, located in the northern part of Evia, (Figure 1) as well as the locally known river of Almyros have very special characteristics which could be utilized accordingly under a vision of regional landscape development as a tourist attraction or even as a theme park for sports and alternative activities.

With this research we will attempt to reflect on our options as far as the direction of this development is concerned



Figure 1: The study area

2. EXISTING SITUATION

The plain of Kria Vrisi in northern Evia (Figure 2) Evia is classified as an area of intensive agricultural activity. A large part of the local population lives off the land since farming is their main occupation.



Figure 2: The plain of Kria Vrisi in northern Evia and Almyros river

Unfortunately, the agricultural products harvested in the above area are neither competitive enough nor high in demand.

In the wider area of the Kria Vrisi plain there are three hospices, which stay open and operate during the summer months of the year as they are very close to the Kria Vrisi beach, the local attraction of the region. The outstanding landscape of the beach and the crystal clear waters have attracted the tourists' interest, mainly free campers and consequently, the local society is losing out on potential financial benefits.

On the northern part of the plain lies the river of Almyros.

The characteristics of the river are the following:

- The river is not protected under the NATURA scheme and with this research/development its current status will not be affected.
- Its springs are located 1.8km away from the river's mouth and their level is close to sea level.
- It has a steady stream throughout the whole year.
- Anchorage of small boats is possible at the river's mouth.

Another special feature of the river, is that due to its unique morphology, the phenomenon of flooding of the river is not observed. As a result, if we were to construct a building at the river's banks or even inside the river it would remain safe and unaffected from the flooding. The same applies for a boats anchorage in the river's waters.

However, problems may arise from the potential blockage of the river's mouth by debris. In the case that something as the above occurs, offshore fields by the river's banks will be inundated by the flood and as a result will block the passing of small boats and their anchorage in the river's mouth (Figure 3).

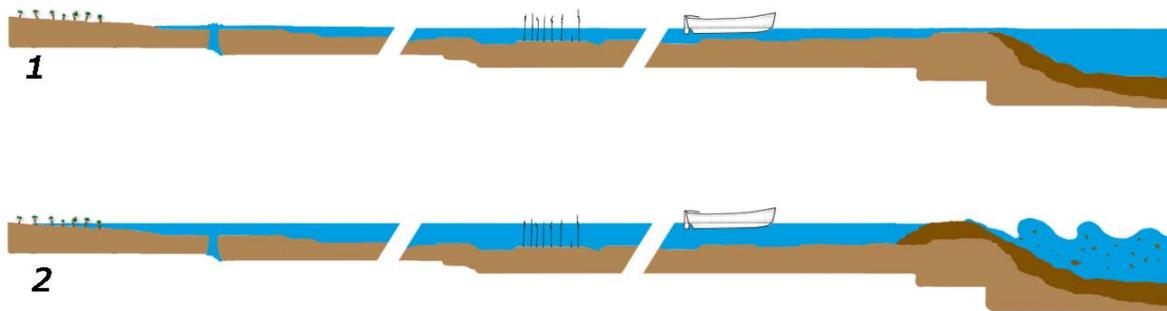


Figure 3: Schematic longitudinal section showing the open flow to the sea (1) and the potential blockage of the river's mouth by debris (2)

In conclusion, the river is in the form of a beautiful and mildly linear lake (Sargentis *et al.*, 1998).

3. SUGGESTIONS FOR SUSTAINABLE LANDSCAPE DEVELOPMENT

3.1. Settlement of the estuary

The establishment of a breakwater/sea-wall in front of the river's mouth has been proposed as a settlement to the rivers' estuary (Figure 4, Figure 5.2).

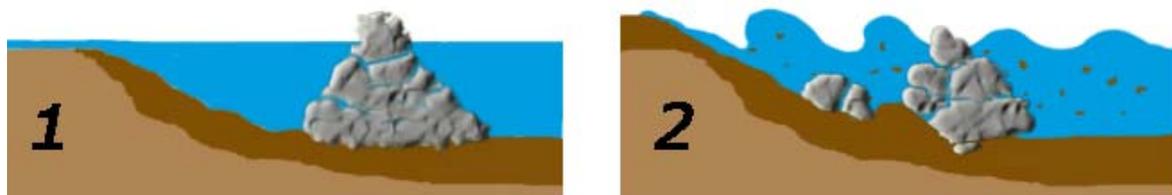


Figure 4: Schematic section of the proposed breakwater/sea-wall (1) and possible failure (2)

This construction is estimated to be ineffective, since the seabed is very sandy and the size of the waves, which it would have to be designed for, would require the establishment of a very major project with unanticipated environmental effects (eg.

change of coastline due to erosion, alteration of the landscape and potential failure of the breakwater/sea-wall in the case of a small size or extreme weather conditions).

The results of the preliminary study of this research however, do not lead to the same conclusions. Instead they propose a shift in the bed of the estuary to the North. By moving the bed of the estuary to the North, the land of the coast as well as the seabed will become rockier and therefore the construction of a safe, small and similar to the surrounding landscape breakwater/seawall could be possible (Figure 5.3).

Nevertheless, prior to any constructions, a study of the various implementations of this project is essential, as very strong winds and big waves are observed in the area. Anyhow, whichever proposal is selected for the settlement of the estuary it will require serious technical work and should not be put into action with vague approaches.



Figure 5: Present situation (1), existing proposal (2) and proposal according to the present preliminary study (3)

Nonetheless, to ensure the safe functioning of the facilities, the river's mouth should be maintained clear of any debris that may arise after a storm. In order to achieve that, it should be checked on at a regular basis.

3.2 The river

Today there is no other activity of any form happening at the river (apart from a little harbour at the river's mouth where small boats moor).

The landscape and the nature of the river are not turned into advantage. The river is better shown off when someone observes it from an inside angle. What is more, the redevelopment of the river's landscape, in a theme park attraction manner, is being proposed (Figure 6).

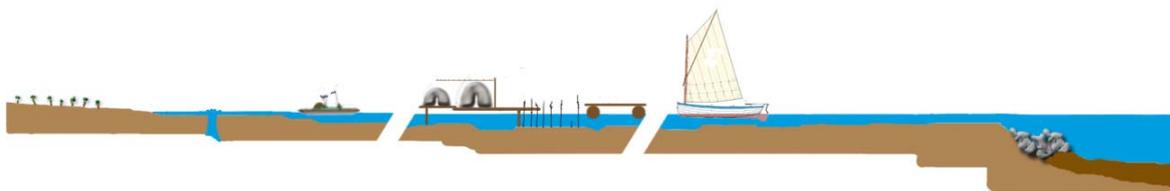


Figure 6: Section of the river proposing its function as a thematic park

The purpose of building this park would be to engage the visitor to interact with the river and enjoy the exceptional landscape created. By building special sites, these are going to function as poles of attraction for the tourists as well as focus on the landscape itself, which will serve the aforementioned purpose (Kaplan *et al.*, 1989, Hall *et al.*, 2001).

Minor constructions are proposed as a solution. They would be placed on special pilings or even on custom made means of floatation on the riverbed. Additionally, small boats will

be introduced for travelling on the river as well as for the transportation of the visitors (Booth 1990).

The small boats as well as the constructions build in the river will be developed in accordance to the best accommodation of the on-site activities and to better show off the unique features of the river's landscape (Bourassa 1991).

3.2. River activities

It is proposed for the structures built by the river to be constructed according to a thematic manner, i.e. small guesthouses, shops that will promote local products, small workshops, bars, restaurants and more.

Some of the activities planned for the area include, recreation through environmental activities (such as the circumnavigation of the river, observing the landscape, etc.), housing facilities and guesthouses in the river, the catering and promotion of local products in the on-site shops and workshops.

The above constructions will enable the creation of a model market not only for the services but also for the promotion of the primary (agricultural products) and the secondary sector of production (workshops and other recreational activities) on the site.

3.2. The physiognomy of the landscape

Under its current state, the highlight of the landscape is nothing more than the mild flow of the water. With the existence of the proposed constructions and developments a modern and more environmentally friendly physiognomy will be introduced on site, which will function both as a landmark and a tourist attraction

The proposed structures are designed with environmentally friendly materials in order to accentuate the landscape's rational environmental management and its consistency with its activities and nature (Sargentis *et al.*, 2007).

The proposed boats, will have to identify with the totality of the project and reinforce its physiognomy.

Since the small boats will have a prominent role in the landscape (i.e. the circumnavigation of the river, visitor transportation up and down the river's market) they will be specifically designed in order to stand out as a landmark in the site.

What we would suggest is the introduction of canoeing, pedal-paddling boats and sailing across the river as a means of mild transportation across the river. On the other side, if we used a motor-based means of transportation, the potential visitor would view the site and its surroundings at a very short amount of time thus leaving the premises very early.

The whole purpose of this however is to not drive away the visitors but to hold their interest here by providing them with various activities (Figure 8), which would create the optimum condition for them to elongate their stay at the premises. By using the above means of mild transportation across the river will serve this goal.

It is for these reasons that the use of small, canoe-type, wooden boats and pedal-paddling boats is suggested (Figure 9).



Figure 9: Architectural model of thematic park

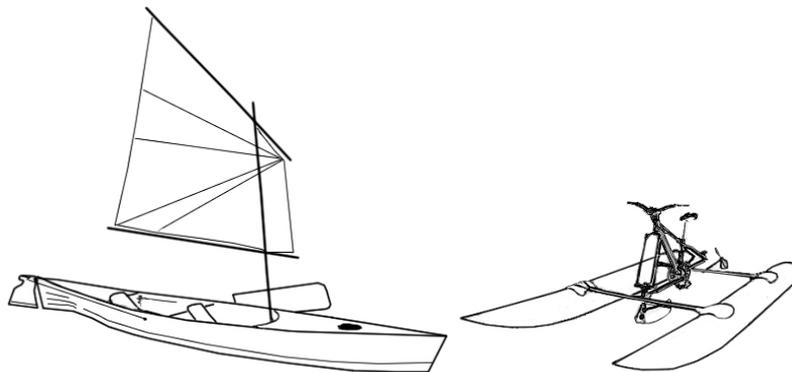


Figure 8: Suggested crafts

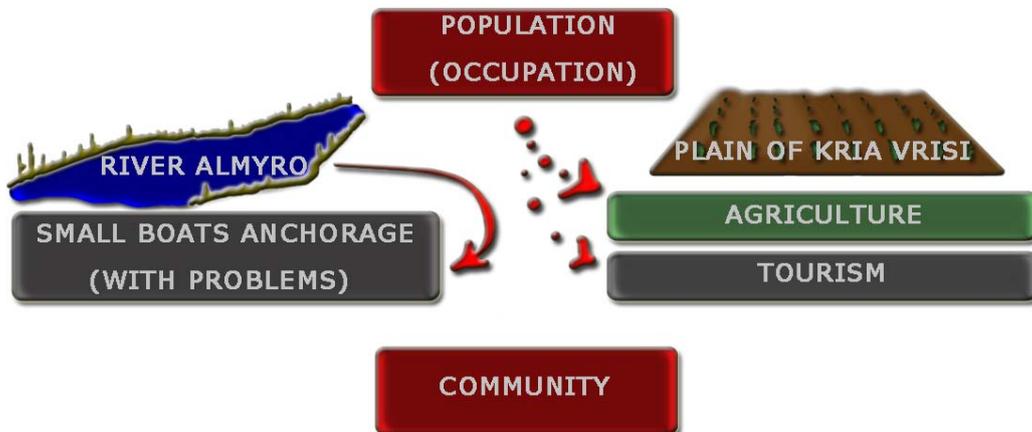
4. BENEFITS OF DEVELOPMENT

Under the proposed plan, the benefits of such a development are the following (Figure 10):

- The intensive and disorderly mannered tourism that is observed during the summer months at the Kria Vrasi beach will be somehow organised and eventually bring in benefits to the local communities throughout the whole of the year (Grenier *et al.*, 1993).
- The site will now have a new identity as a landmark (for sightseeing) that will be worth the visit of a potential tourist. The tourist will have to spend some time there to view the landscape and participate in the activities, which will provide the visitor with the motivation to stay there for a longer period.
- The suggested developments propose that the local community can promote its interests, by showing off the natural beauty of the site, as well as optimising the production of local products and promoting them to a greater public.

- The main objective of this activity however is the creation of a number of new jobs. New labour would have to be employed in various on-site activities.

EXISTING SITUATION



PROPOSAL

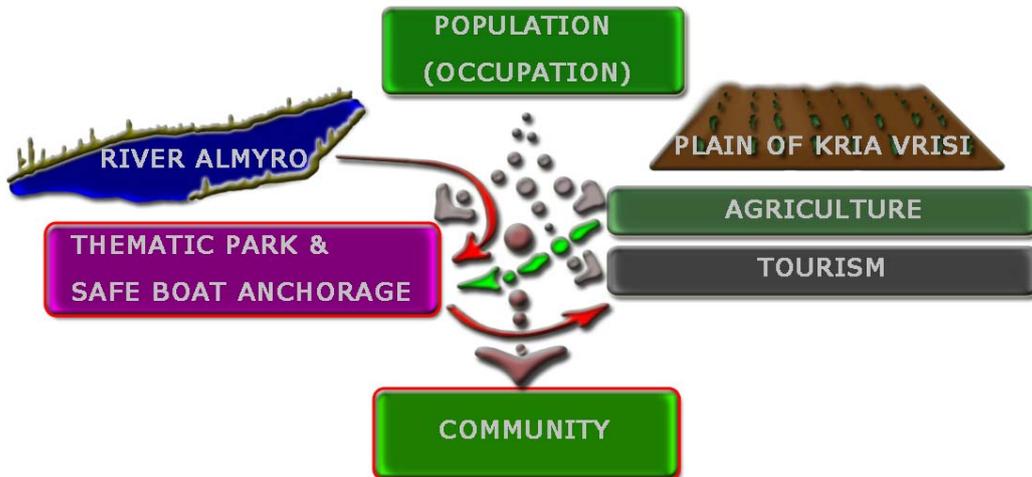


Figure 10: Benefits of the development

5. CONCLUSIONS

Over the years it has been proven that human intervention on beautiful sites in terms of exploiting a site's natural beauty has taken its toll on the natural character of the landscape.

In this context however, the exploitation of natural resources by mild human interventions with an environmentally friendly character, could potentially bring in benefits to the local communities and achieve a well balanced and sustainable development for the locals (Zube 1982, Castellani *et al.*, 2009).

The site where this development will be constructed is public property and belonging to the government. The proposed research for this site will allow for development to occur, furthermore this process should be coordinated and managed by an appropriate institutional entity (Berkes 1976) determined by the local municipality, which in their turn will manage to achieve the following goals.

- The development of the site.
- The environmental control of such actions (Koç 2011).
- The operation of the site's theme park.
- The optimal coordination of investors who wish to invest as well as their environmentally friendly certification of their actions.
- The promotion as well as the provision of local products and their producers.

REFERENCES

1. Berkes F. Ecology, ecological knowledge and resource management, Taylor & Francis U.S. 1976.
2. Bourassa S., The aesthetic of Landscape. Belhaven Press, London and New York 1991.
3. Booth N. K., Basic Elements of Landscape, Architectural Design, Waveland Press 1990.
4. Castellani V., Sala S., Sustainable Tourism as a Factor of Local Development, Tangram Edizioni Scientifiche Trento, 2009.
5. Koç C., The effects of the environment and ecology projects on lake management and water quality, Environmental Monitoring and Assessment, Volume 175, 2011.
6. Christofides, A., A. Efstratiadis, D. Koutsoyiannis, G.-F. Sargentis, and K. Hadjibiros, Resolving conflicting objectives in the management of the Plastiras Lake: can we quantify beauty?, Hydrology and Earth System Sciences, Volume 9, Issue 5, 2005.
7. Hall D. and Richards G., Tourism and sustainable community development, Routledge, London 2001.
8. Grenier D., Kaae B., Miller M. and Roger W. Mobley, Ecotourism, landscape architecture and urban planning, Landscape and Urban Planning, Volume 25, Issues 1-2, August 1993.
9. Hadjibiros, K., A. Katsiri, A. Andreadakis, D. Koutsoyiannis, A. Stamou, A. Christofides, A. Efstratiadis and G.-F. Sargentis, Multi-Criteria Reservoir Water Management, 9th International Conference on Environmental Science and Technology, Rhodes island, Department of Environmental Studies, University of the Aegean, 2005.
10. Kaplan R., Kaplan S., The Experience of Nature; A Psychological Perspective, University of Michigan, Cambridge University Press 1989.
11. Sargentis, G.-F., K. Bartsioika, N. Symeonidis, and K. Hadjibiros, Evaluation method regarding the effect of building design in the context of sustainable development, 10th International Conference on Environmental Science and Technology, Kos island, Department of Environmental Studies, University of the Aegean, 2007.
12. Sargentis G.-F., The aesthetic element in water, hydraulics and dams, degree thesis, Dept. of Civil Engineer, NTUA, Athens 1998.
13. Sargentis, G.-F., K. Hadjibiros and A. Christofides, Plastiras Lake: the impact of water level on the aesthetic value of the landscape, 9th International Conference on Environmental Science and Technology, Rhodes island, Department of Environmental Studies, University of the Aegean, 2005.
14. Sargentis, G.-F., N. Symeonides, Drawings for the Earth, eco-dome publications (urban non-profit organization for sustainable architecture), Athens 2010.
15. Zube E., Sell J. and Taylor J., Landscape perception: Research, application and theory, Landscape Planning, Volume 9, Issue 1, July 1982.