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## The harmonization of cultural heritage and architectural conservation needs with socio-economic requirements of rural habitat in Danube Delta

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**A**bstract: The paper present a study of cultural heritage of rural landscape in Danube Delta Biosphere Reserve focuses on cultural landscapes that reflect traditional lifestyle of the locals, activities of deltas' resource sustainable exploitation, creating visual elements in the rural landscape, especially on traditional buildings, fishermen's temporary shelters from fishing areas and other traditional activities. In order to highlight the necessity of cultural heritage harmonization and architectural conservation with the socio-economic requirements of rural habitat in Danube Delta were made some field activities through different methods of field investigation, like structured and semi-structured interviews, questionnaires, focus groups. In Danube Delta villages, the changes imposed by the touristic function of most of existing or new construction have produced important changes in the architectural landscape of existing settlements impending danger of destroying traditional architectural values which demonstrates on the one hand the personality and inovation spirit of local people in their constructions, particularly in the use of local materials, and on the other hand gives a specific area feature that blends perfectly with the natural landscape. Danube Delta, the space of complex features in terms of cultural values, characterized as open gate of cultural interference, is the area that can provide options to balance cohabitation and cultural heritage.

**Key words:** Danube Delta, cultural heritage, architectural conservation, landscape, sustainable exploitation.

### INTRODUCTION

In Danube Delta's villages, the adjustments required by the touristic function have produced important changes in the architectural landscape of existing settlements, leading to an impending danger of destroying traditional architectural values. For this reason, the work has proposed harmonization of cultural heritage and architectural conservation needs with socio-economic requirements of rural habitat in Danube Delta.

Objectives:

1. Identifying architectural heritage and socio-economic needs of rural habitat in the Danube Delta
2. Creation of guide solutions for harmonization of cultural heritage and architectural conservation with socio-economic requirements of rural habitat in Danube Delta

### MATERIALS AND METHODS

Study localities were Chilia Veche, Sulina, Sf. Gheorghe, Crisan and Mila 23. Were performed some field activities using different methods of field investigation, like structured and semi-structured interviews, questionnaires and focused groups.

It was developed a matrix (**Table 1**) which highlights the harmonization or the incompatibility between the needs to protect the cultural architectural heritage and the socio-economic needs of the rural habitat. To complete the matrix several categories of people were interviewed, based on questionnaires. Depending on the importance of the need to protect the rural architectural heritage were given the notes 0 (positive answer) and 1 (for negation). This matrix was filled based on the notes provided by the respondents.

**Table 1**  
The matrix for harmonization the needs to protect the architectural heritage  
with the socio-economic needs of the rural habitat

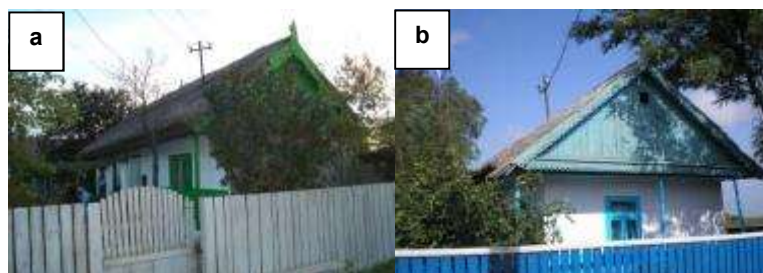
NECESSARY ↓	PROTECTION →				
	Legislation	Funding	General Urban Plan	Education	Local authorities
Family foundation					
Renovation need					
Business developing					
Holiday homes					
Job creation					
Encourage practice traditional occupations					
Discharge from certain taxes					
Adaptation of laws (rules) depending on the needs of residents					
Infrastructure development					

## RESULTS AND DISCUSSIONS

In Danube Delta's villages, the adjustments required by the touristic function have produced important changes in the architectural landscape of existing settlements, leading to an impending danger of destroying traditional architectural values, values which demonstrate on the one hand the personality and innovation spirit of the local people in their constructions, particularly in the use of local materials, and on the other hand which give to the area some specific features that blend perfectly with the natural landscape.

In studied localities were found the following traditional architectural elements:

- the type of housing (**Fig. 1**);
- the housing characteristics;
- the traditional specific features (thatched roof, thatched fencing and household annexes, adobe walls);
- the decorative architectural elements (ridge and fascia, gable), using traditional colors (ultramarine - a shade of blue, green, white, gray) (**Fig. 2**);
- for houses and windows / doors, fences, there are traditional elements, such as porches, clay oven.



**Fig. 1** Houses types (**a** - Crișan; **b** - Mila 23).



**Fig. 2** Ornamental architectural elements - ridge and fascia.

The houses structures in the Danube Delta are very diverse, depending on several factors: the condition of the land, people's ethnicity (Romanian, Russian - Lipovans and Ukrainian), the origin of Romanians immigrants from various other Romanian provinces, occupations, urban influence, the absence of constraints regarding the house plan, the lack of alternatives, the incomes.

In all the studied localities there were found specific traditional houses preserved. However, the lowest number of traditional houses can be seen in Crisan village, due to the developing tourism in the last few years (**Fig. 3**).



**Fig. 3** House used for tourism.

The majority of houses which maintain the specific of the area, are covered with reeds, even if is difficult to obtain this kind of material and you can hardly find artisans who know to make reed roofs. Using reed (not only for fencing and roofing) has a relatively low percentage of usage in the new buildings or renovations, motivated by locals: *"Reed is expensive for those who want to buy it. If you find artisans to build your house using reed, a solution is to go during winter with 2-3 men to cut reeds, to pay them daily and this is how it will be cheaper"*. The reed is used for covering the annexes (**Fig. 4**). Locals are aware of the advantages of using reed *"A thatched roof, keeps a house warm during winter and cool during summer, unlike these new materials that are beautiful and durable, but suffocating during summer."* Regarding the traditional building materials, there are also buildings/annexes wrapped with: boards, asbestos/fiber cement, tiles, ondulines and other modern materials. Almost in all the studied localities there are houses that copied the model of Sulina's buildings that are on the exterior covered for protection against wind and moisture (**Fig. 5**).



**Fig. 4** Annexes covered with reed.



**Fig. 5** The model of Sulina house.

After the flood of 1970, the houses began to be built out of traditional materials, considered more resistant (eg. cement is applied over clay/adobe, especially on the exterior walls).

Regarding the use of construction materials it can be observed that the constructions start to depend more on the financial situation of each person, the education or preferences, and combining modern elements with traditional building seems to be the new trend in delta's villages. In the deltaic villages there are houses which still preserve the local architectural specific, but because of the tourism development, the typical face of the delta's village starts to change (**Fig 6**).



**Fig. 6** Building houses with non-traditional materials.

Field observations detect first the ingress of the investors in the Danube Delta (especially in the areas visited by a high number of tourists like Sulina, Crisan or St. George), investors from different areas of the country who are trying to introduce the specific architecture from their area's origin (**Fig. 7**). In the recent years, in the localities from Danube Delta's reservation, have been built a series of construction for tourism facilities that do not integrate into the landscape of the delta, and without complying with the local traditions.



**Fig. 7** Pensions built with modern materials with architectural style from the owners areas of origin.

The needs to preserve the traditional architectural elements, or harmoniously combining the modern and the traditional elements offer tourism attraction and sustainable development of the delta's localities. This could be successfully

accomplished if these would be combined with the traditional activities in the Danube Delta: fishing, farming, animal breeding, harvesting and use of the reed, craft activities and rural tourism that respects the traditional elements of the area.

As we have shown in work methodology, was developed a matrix which highlights the harmonization or the incompatibility between the needs to protect the cultural architectural heritage and the socio-economic needs of the rural habitat. To complete the matrix several categories of people were interviewed, based on questionnaires. Depending on the importance of the need to protect the rural architectural heritage were given the notes 0 (positive answer) and 1 (for negation). This matrix was filled based on the notes provided by the respondents.

**Table 2**  
The filled matrix for harmonization the needs to protect the architectural heritage with the socio-economic needs of the rural habitat

NECESSARY ↓	PROTECTION →				
	Legislation	Funding	General Urban Plan	Education	Local authorities
Family foundation	1	0	1	0	0
Renovation need	1	0	1	1	0
Business developing	0	0	1	0	0
Holiday homes	1	0	0	1	0
Job creation	1	0	1	0	1
Encourage practice traditional occupations	1	0	1	0	0
Discharge from certain taxes	0	1	1	1	0
Adaptation of laws (rules) depending on the needs of residents	0	1	1	1	0
infrastructure development	1	0	1	1	0

The respondents claimed that the family foundation should be protected through education funding and with local authorities help. Most young people leave the delta villages because there they are not able to deepen their studies and then to find a proper job.

Many of the houses from delta villages are very old, they were built to be inhabited by at least three generations. For this it is necessary to be renovated, but only with the local municipalities help and with financial help from them.

Business developing is protected through General Urban Plan. Developing new business in rural delta are always welcome because they create jobs for the delta's inhabitants.

It is necessary to harmonize the interests of those who want to develop tourism in the delta with the need, not to cause ecological imbalance or not to accentuate existing ones.

Authorities should advise the investors and the inhabitants about the importance of preserving deltaic architectural heritage both for the overall appearance of the village and to attract tourists in different places in the Danube Delta. Infrastructure development is protected by the legislation, General Urban Plan and education and is required to be protected by local authorities through funding.

Local authorities and legislation not encourage the discharge from certain taxes.

The traditional architecture of the delta needs to be supported by concrete means by both local authorities and the government considering the uniqueness of the landscape's resources.

Following the fieldwork, the analysis of structured and semi-structured interviews, questionnaires, focused groups, the socio-anthropological investigation, the participatory observation method in the studied areas and combined with results

previous presented, have been identified the factors that influence the traditional architecture and cultural heritage in the deltaic villages.

These factors are grouped in:

1. **Socio-economical factors:**
  - The lack of legislation on traditional heritage;
  - The tourism;
  - The lack of jobs (especially for the young people);
  - The exodus of young people to urban centers;
  - Lowering the standard of living;
  - The lack of housing insurance;
  - Poor infrastructure;
  - The pervasion of technological factors.
  
2. **Cultural factors:**
  - The lack of housing;
  - The lack of transmission vector of cultural values through generations;
  - The lack of interest in taking over the traditional cultural values;
  - The disappearance of cultural events: wedding traditions, baptism, funeral etc .;
  - The loss of events with social cohesion role among family members and communities.

Danube Delta Biosphere Reserve Cultural Heritage consists of vernacular architecture, traditions and Habits and traditional activities: agriculture, fishing, handicrafts.

To highlight the factors that influence DDBR cultural heritage and how great is their influence, was realized the Diagram of the Cultural Heritage constrain factors (Fig. 8)

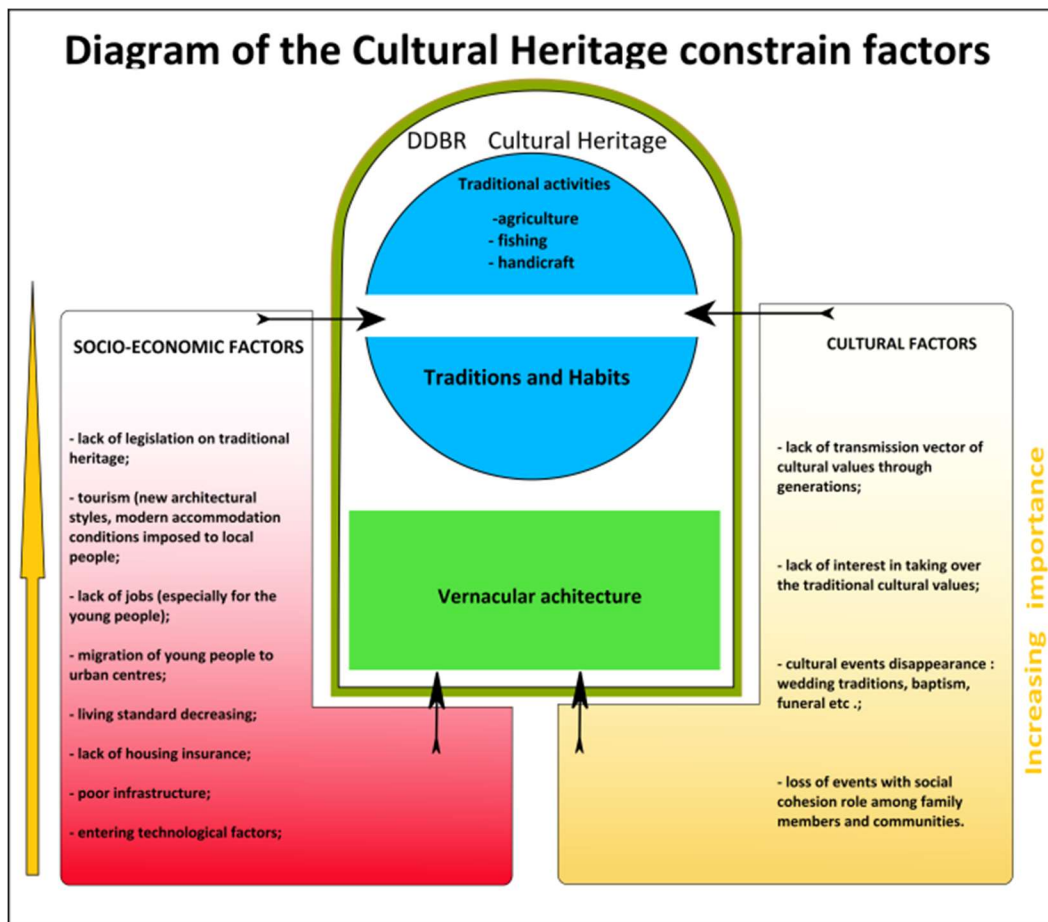


Fig. 8. Diagram of the Cultural Heritage constrain factors.

Socio-economic factors which influence DDBR Cultural Heritage considering increasing importance are: lack of legislation on traditional heritage, tourism, lack of jobs, migration of young people to urban centres, living standard decreasing, lack of housing insurance, poor infrastructure, entering technological factors.

Cultural factors which influence DDBR Cultural Heritage with high importance are: lack of transmission vector of cultural values through generations, lack of interest in taking over the traditional cultural values, cultural events disappearance: wedding traditions, baptism, funeral etc; loss of events with social cohesion role among family members and communities.

Cultural heritage to be preserved delta is encouraged to develop further in this way, or as a model of inspiration for new architectural trends that are promoted especially those investing in tourism. Keeping track of traditional architecture should be closely linked with socio-economic needs of rural habitat Delta.

## CONCLUSIONS

To preserve the architectural heritage and sustainable development in subjects and not only requires taking the tradition of everything that is positive and representative in terms of architecture, to preserve both the big picture in studied localities (and other deltaic places) and the environment by using environmentally friendly building materials.

Architecture of delta houses is influenced largely by the development of tourism, the fact that Delta people come from other areas of the country and build homes or holiday houses respecting the style of the areas of origin.

Specific architecture of the villages in the Danube Delta lies in a transformation process on the one hand due to change profile activities in many places, on the other hand the desire of residents to modify their homes in a modern style.

Dynamics of new construction, especially with use for tourism and the changes in the practice of this activity have altered the overall appearance of settlements in the study.

It would be necessary that local authorities support, promote and even to impose by means which are handy local tradition impressive on delta architecture using natural materials.

General disadvantages of the whole spectrum of traditional economic activities that can be carried on, in general, the degree of isolation of the delta area and the difficulties of travel.

A sustainable community is based on active citizens participating in the development of their community. This is a priority for delta communities - a sense of initiative and responsibility for the fate of the residents of their community.

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