

**InterCOAST. THE RELATIONSHIP SPACES BETEENW THE RUAL LANDSCAPE AND  
COSTAL LANDSCAPE IN THE LARGE AREA BETWEEN THE AGRICULTURAL AREA  
OF CAPITANA AND THE GEREMEAS BEACH**

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**Abstract**

*« This Island is not similar to nobody place. Sardinia is another thing: bewitching place around and distance to be covered, nothing of finished, nothing of defined. It's like freedom. » (David Herbert Lawrence) The south-oriental Sardinian coast is characterized by rapid change of landscape, conditions and land uses. That one can be connected by greenways or green-belt? The water system of the city can be use not only like draining but also in a sustainable and ecological development logic.*

Keywords: landscape, development, coastline.

**1. INTRODUCTION**

The metropolitan area of Cagliari with the city of Quartu Sant'Elena have influenced the settlement events of the whole Southeast Sardinia. For this reason that area can be the better place to made practice on the landscape design. In front of us we found an hardly diversify landscape, also in natural terms. This can be detected, not only walking in parallel with the coast, but also going from the coast to the inland, where it's possible to see a continuous change of conditions. From natural to polluted landscape. Why the title InterCOAST? The prefix inter, that in Latin have the meaning of "between", absolve the job to emphasize the needs to create a meeting point between the numerous conditions of the territory. All Southeast Sardinia is characterized from a lot of number of fast change of landscape. This evident disconnections derived by the different uses that human have made of the peri-urban and suburban areas in the course of centuries. This fact was amplified at once from the deindustrialization at once from the continuous needs of annexation of new areas to city and, principally in the coast areas, for the rules dictated by the mass tourism.

In so specific reality like Sardinian context, must be faced the relation with the water, that is contemporary a recourse and a threat. Quartu Sant'Elena is surrounded by the seawater, the old saline water of the Pond Molentargius and the Pond Simbirizzi and by a very dense river network. Behind every one of this there are a lot of traditions and evolutions stories developed in the centuries. For this place is desirable to made a unitary planning of sustainable development not with the purpose of deleted the difference between the numerous part but with the intention of improve the connections.

On the concept of sustainability must be based not only social or economic development but also the architectural planning.



**Figure 1. Sardinian Orthophotos 2006**

**2. LANDSCAPE MUST BE DESIGNED**

The main objective of this paper is to focus the interest on the theme of landscape design. A so "romantic" concept like landscape can only be the privileged subject for the attention of public administration and architects. The landscape, having a poetic value but also a scientific one, to be based on two main points: the first one refers to an

aesthetic-perceptive concept (related to the visual perception and feelings that it causes); the second one derive from physical geography at first and natural sciences then, which can be summed up in the subject of ecology.

What we can find outside our cities are the areas that in the past time are used for the agricultural activities. With the fall of the rural system and its society, this areas have been abandoned or incorporated in the city expansion of urban area. As the landscape is the representation of the visual perception of the space, or rather the shape we give to nature or that we wish it had, is fundamental support the knowledge of the ambient, also through an ethic and ecologic point of view, which is the basic to Architectural Landscape. The landscape design became, at the same time, the representation of a emotional state and every historical interrelations, overlap and stratification of the land.

The landscaper must interpret the vision that people have of the spaces that must be designed, making the appropriation of this place by the habitants easier, in order to reuse, modify and renew it. Has the task of giving to the landscape new meanings through invisible connections, for the reconnections of the disjunctions of the urban texture.

For this reasons terms like sustainability, eco-compatibility are entered into common use. Provoking a lot of interests it can facilitate the economic increasing. The ability of this thematic to attract public attention leads up to light have enormous economic potential. For this reasons the public administration had to familiarized with this concept. In line with this the Region of Sardinia is the first Italian region to have a Regional Landscape Plan.

### **2.1 Landscape and Ecological Urbanism. A flexible response to the newly needs?**

The necessity of multidisciplinary, the need of a ongoing and constant research and innovation are now including in a new concept which remained to be defined in a detailed way. The landscape design cannot be harnessed in an only one definition or way, but is necessary to consider it within its different characteristic and typological aspect in according to traditions and demands.

The concept of Landscape Urbanism was born over the last ten years with the aim to promote a new vision of the urban plan.

The basis of this movement is the critic to the static component of the traditional landscape architecture and its incapacity to evolve as quickly as the urban and suburban change take place. Another reason is the totally incapacity to remedy to depredated environment conditions, caused, above all, to the deindustrialization.

The city planning must be founded on ecological and sustainable bases and the landscape planning can be an important tool for bringing about effective socio-economic development in towns, cities or local and regional areas and for promoting territorial cohesion. The Landscape Urbanism promotes the definitive abandonment of the planning petrify, promoted by urban design, for a interdisciplinary collaboration, starting by

the conviction that the landscape includes a lot of concept from geological to social, from ecological to architectural meanings. From the old tradition of landscape planning be saved the most important concept, under which the landscape result the only way to connect urban planning, economy and society.

Therefore, the typology of design promoted by Landscape Urbanism result to be a good mixing between ecological elements and project, considering, in every moment, its architectural dimension.

Landscape Urbanism have a twofold function: firstly theoretical and secondly practically. From the ideological point of view, is assumed that the city might be imagined like a landscape and, on the other hand, the last one can be ordered and planned with the urban rules. This is a clean break with the past, in which the two concept are either detached. In this way, the landscape get rid of its marginal role of passive background.

Another concept which is developed in contemporary with Landscape Urbanism is Ecological Urbanism. This one imparts at the concept of Urbanism a connotation more linked to value like ecologic or environmental aspects, by conferring on it the necessary elements to describe the actually urban conditions. It is possible only focusing the attention of the urban discussion over more specific, ecologic, economic and social image. This elements can be help to see the possible scenarios for the future in order to value every possible solutions. This can be realized only through the understanding that the contemporary city rarely follow a determinate demarcations lines or traditional disciplinary borders.

The fundamental problem is that the Ecological Urbanism seems to be a contradiction in terms. How can be ecological the city, which is the place that mostly cause the resource consumption? It's a difficult question, but it's not impossible to give it an answer. All things considered, the architects don't find himself, everyday, designing in hybrid areas on the border between city and landscape? On this points Landscape and Ecological Urbanism propose to reflect on.

### **2.2 Looking for a second nature**

It was found that there is a clear necessity of the modern human to live in a more natural than artificial dimension. The futuristic visions of cities pervaded by technologies shocked us more than charm, and the research of a natural dimension became every day more and more strong. But what natural does it means? It's obviously that the idea of a uncontaminated nature it's more a metaphor than a real concept. Which are the minimum requirements so that the habitants can accept a second nature, not bucolic but reasoned one. Is only through the analysis of this human necessities that landscaper can be create a nature people-friendly. Probably only thanks the born of this second nature we can create ecological cities as proposed by Ecological Urbanism.

It's generally shared by every people that the introduction of green spaces in the city is a good thing not only for aesthetic reasons or for the free time of the habitants but principally for the ecological benefits that it can derive from that. But for the extra-urban areas, what landscaper must do? In which way they should be work?

### **2.3 Green networks the phenomenon of the Greenways and Green-belt**

The green networks are the result of a landscape planning in a great scale that may be subject to different functions. Areas that can create interrelationships between the green and what is around it. A sort of polyvalent places. The green networks can be considered like infrastructure, like green connections between different areas.

The architect must be found a solution for the overpopulation of our cities, the pollution of the area and of water. They must obtain an equilibrate connection between the cities and the landscape in which are incorporate. It is therefore important to analyze the relationship between the ambient and the city, the built and the vegetable to create a systematic scheme of planned places, which may lead to a connection between the different disjunction.

Must be created connected systems of green spaces and not a single space of green areas with restrict dimension. Started from the concept of ecologic corridors, in which the perimeter is decided in relation with the conservation of the landscape value, we can use similar strategies also in urban and extra-urban place of lower ecological quality to create green infrastructure. This is a clear input to regenerate some service that are lost. These can be connected by the free-time or by the hygienic-sanitary conditions or to embank the hydro-geological hazards. It's a delicate and rigorous work in which every choose are not casual.

The difficulties are increased by the great dimension of planning areas. Must be analyzed the point in which the differences and the scenery change are more fast and continuous, to make possible to create an uniform design, without that the original condition will be distort with this intervention.

Create a clear functionality became more difficult with the gradual disappear of strong characteristics or signs. In the end, the main problem is find the necessaries tools to relate the diversity that can be connected in same way, for its natural character or artificial or simply for a natural covered.

The green network are, in substance, connecting line. For this reason it's necessary to define a start point and where we want arrive. This big organism must be capable of create services for human, but, at the same time, must be able to get rid of anthropological dimension, putting the attention on more ecological and naturalistic concept.

In the end, it's important understand that in this field must be numerous the compromises. The ecologic concept, seen like biological conservation, must be readjusted to a urban dimension less naturalistic.

The better way to work is to mix the environmental protection component with the economic possibilities and social or cultural development. This point can be affianced by the landscape requalification, the realization of services areas and the education to the nature respect.

The realizations of greenways can be solve the problems of the urban system and suburbs. Conditions like urban congestion, hygienic-sanitary issue and the problems connected to the micro-clime can be improved trough the green space design. This green spaces improved

economic development and landscape and historical sponsorship.

The Green-belt, instead, can be brought back to more naturalistic value. Is more connected to the ecological network.

### **3. HISTORICAL EVOLUTION OF THE URBAN SPRAWL "BETWEEN SPADE AND BIKINI"**

The planning of metropolitan area of Cagliari, with its satellite cities, must be considered as a privileged instrument to spark off a new development, not economic only, but sustainable to.

The territory of Quartu Sant'Elena is characterized by its geologic nature. Bordering with Mountain of Sant'Elia on the one hand and with the Massif of Settefratelli on the other hand. This area have a strong connection with the water for its relationship with the sea, but also with the numerous catchment areas. The long coastal strip present a orography so differed, from sandy coasts to rocky coastlines.



**Figure 2. Municipality boundary of Quartu Sant'Elena**

In the nuragic period the largest residential settlements can be founded near the river basins and along its canal tributary that created, within the sea, a perfect physic and functional system of water discharge. Overall, this guidelines defined the settlement, the ways and the traced, also now, going over the geo-morphologic difficulties. We can say that the settlements are connected with the productive activities.

The life in the oriental part of territory, more far from the centre, it's totally discarded to the city. The large hurdle is represented by the steepness of large areas that create a strong isolation condition. The numerous river increased this isolation and with its torrential nature, frequently, cause local flooding.

Only in earlier times, with the realization of the Provincial Road 17 (one the most important connection with the oriental side of Sardinia) this condition have been improved, making the connection between the centre and the costal areas possible all year around.

The most important agriculture activities are concerted in two zones. The first one in the area included between the Riu su Foxi to Rio Cuba and the second one on the

the boundaries of the municipal territory costing of Rio Geremeas.

By the end of the Nineteenth century and the beginning of the last Century the changes in this area are not substantive. The rapid spread of cars like private means of transporting and the housing boom, beginning in the mid-fifties, also in Sardinia, explode the second home phenomenon for a touristic use. The parcelling of the land start to rise on all coastline, no less Quartu Sant'Elena's waterfront. A big part of this areas are, before that, dedicated to agriculture activities. The only one part that, still now, is almost uncontaminated is the Cala Regina area, probably for its own morphological acclivity.

The "empty" space are not natural one but consist in abandoned space, place without a sense in which nothing happens. The service are very low and there isn't an strong organization scheme or a connected and homogeneous design.

One of the most important ancient activities is the extraction of salt of the saline of Molentargius. The traditional extraction activity arrive to our times, the saline stop the activities in 1984 for hygienic-sanitary reasons, which consist in the folding inside the pond of water polluted. For few time persist this polluted condition, in fact, in 1999, the Molentargius-Saline Regional Natural Park was founded. Today is the favorite habitat for a lot of spaces, especially for the specie protected of the flamingo.

But the most profitable activities are the agriculture and the sheep-farming. The wine-production was the main form of farming. It was so abundant and not only for the city needs but also for the neighboring city of Cagliari.

The agricultural traditional landscape was characterized by a lot of number of small private plots of land. Every citizen have a parcel, the agricultural cooperatives are very small and a familiar conduction. In the beginning of the Twentieth Century, to increase the production volume, the Cantina Sociale of Quartu Sant'Elena was founded. Every farmer needed to bring the grapes to the wine cellar.

#### **4. THE RELATIONSHIP SPACE THAT CAN BE HOPED**

We have talk about the agriculture culture of this place. But, from the 1965 the landscape modify its identity in favor of the touristic reality. Quartu Sant'Elena have so beautiful coast and the agricultural activities are not very profitable. A lot of parcel are bought to built detached houses, and the agriculture, in few cases, is confined along the river.

The territory became more and more fragmented and the phenomenon of the urban sprawl implemented the pollution of the landscape not only in a environmental concept but also in a visual way. In lot parts of the territory the visual relationship with the sea are totally unable and what, for a long time, was a beautiful landscape became a urbanized one.



**Figure 3. Morphological interpretation of the agriculture structure on the base of Regional Map of 1960**

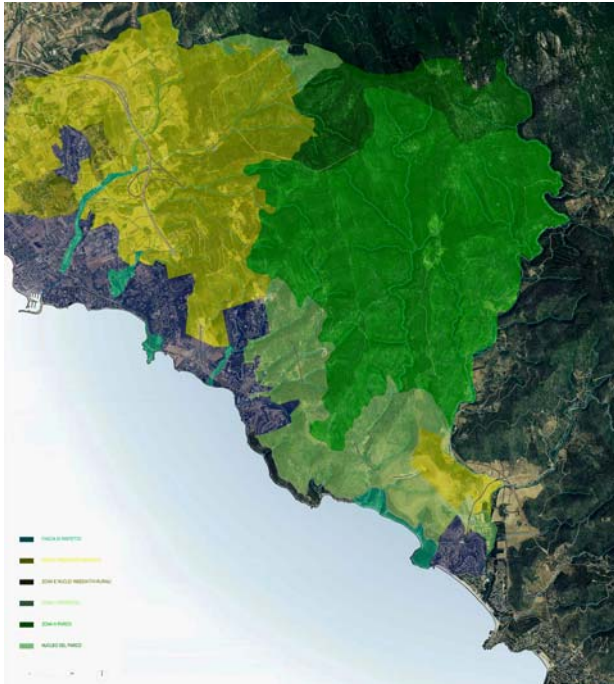


**Figure 4. Morphological interpretation of the agriculture structure on the base of Regional Map of 1987**

Like it's possible to see in the two maps the morphologic asset of the coastline is radically modified. The only free areas are so steeper ground. It's important to say that the most built areas are also the more subject to hydrological risk. The analyses phase it's the most important part of this work because only through that it's possible to design the ecosystem of a large part of territory. The identity references or the plan prevision are precious for the landscaper.

The local planning analyze a lot of important elements, and provides a band of high hydrological risk and five steps of typologies of park: the Pre-agricultural Park, the

Agricultural Park, Pre-Park, Park, and Nucleus of the Park. This steps are originated by the natural conditions of the areas.



**Figure 5. Morphological interpretation of the agriculture structure on the base of Regional Map of 1987**

The road that passed near to the coast is very winding and in the summer time well-traveled. The works for a new road, that connect the city of Cagliari to the oriental Sardinia side are at the end. This road passed through the hinterland of Quartu Sant'Elena trough the mountain and the numerous river. It's use this like a link between the city and its peripheral areas?

In according with the theories of green network, can be realized a system of space that can preserve the area for an hypothetical increasing of the urbanized areas but at the same in the most urban areas it's possible to put inside a lot of service. Following the route it's possible to do a green-belt.



**Figure 6. System of greenways and green-belt**

This system connect the Molentargius natural Park to Geremeas that in the most high part, catching the Rio Geremeas, arrive to the Massif of Settefratelli. This homogeneous system can modify itself during the route,

passing by a more naturalistic character, through a more agricultural s returning on a natural ecosystem.

In which sense it's very important to improve the water condition of the river and preserve, at the same time, the houses that are down-river. From this reasons, this long green-belt can be spread along the river.

The landscape texture, in this way, is very connected but also preserve the specificity of every place conferring only a most readable substance.

The teaching that can be tract to this research is that it's not necessary to make something of really big to do something, but this action or previsions must be reasoned to spark off a series of events that can be improved the original condition. Obviously, it's not possible to create what only nature can be, but what landscaper can do is put, in a harmonically way, some elements that can became a mediation place between human and nature Make clear an existent connection became a plan of action, a strategy that can be followed but not the only one.

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