Metropolitan Architecture

Doñana Out of the city

editor Antonella Contin









Doñana. Out of the city

Editor

Antonella Contin

ISBN 88-387-6146-9 EAN 978-88-387-6146-1

© Copyright 2012 by Maggioli S.p.A.

È vietata la riproduzione, anche parziale, con qualsiasi mezzo effettuata, anche ad uso interno e didattico, non autorizzata.

Maggioli Editore è un marchio di Maggioli S.p.A.

Azienda con sistema qualità certificato ISO 9001:2000 47822 Santarcangelo di Romagna (RN) • Via del Carpino, 8 Tel. 0541/628111 • Fax 0541/622020

www.maggioli.it/servizioclienti e-mail: servizio.clienti@maggioli.it

Diritti di traduzione, di memorizzazione elettronica, di riproduzione e di adattamento, totale o parziale con qualsiasi mezzo sono riservati per tutti i Paesi.

Il catalogo completo è disponibile su www.maggioli.it area università

Finito di stampare nel mese di Novembre 2012 da DigitalPrint Service s.r.l. – Segrate (Milano)

Metropolitan Architecture

Editor in chief

prof. Antonella Contin antonellacontin@gmail.com

International Scientific Committee of Metropolitan Architecture

Nuovi Modelli Sostenibili per la crescita urbana

Arch. Francisco Lopez Comunidad de Madrid | francisco.lopez@madrid.org

Arch. Pedro Ortiz World Bank | portiz1@worldbank.org

Prof. Grahame Shane Columbia University | dgs6@columbia.edu

Landscape Urbanism

Prof. Ed Wall Kingston University | eddwall@gmail.com

Progettazione Ambientale

Prof. Gioia Gibelli SIEP-IALE Società italiana di ecologia del paesaggio | gioiagibelli@gmail.com

Progettazione Architettonica e Urbana

Prof. Giovanni Santamaria NYIT | giovanni.santamaria@gmail.com

Prof. Michael Schwarting NYIT | jms@casarchitects.net

Progettazione Urbanistica

Prof. Domingo Sanchez Fuentes ETSAS Siviglia | dsanchez@us.es

Prof. Daniel Zarza Università Alcalà de Henares | daniel.zarza@uah.es

Progettazione Costruttiva Strutture e Materiali

Prof. Emilio Faroldi Politecnico di Milano | emilio.faroldi@polimi.it

Prof. Massimiliano Nastri Politecnico di Milano | massimoliano.nastri@polimi.it

Editing, translation and cover design

Giacomo Moretto

Doñana Out of the city

editor Antonella Contin



Como Presidente de la diputación provincial de Huelva estoy muy interesado en que nuestro territorio sea objeto de estudios, trabajos universitarios e investigaciones en temas relacionados con el intercambio global. En este libro se muestran las aportaciones que estudiantes y profesores han elaborado sobre Doñana, en el seno del programa de intercambio entre la Universidad de Sevilla y el Politécnico de Milán, que se inició en el curso 2010 - 2011. Por tanto es un gran placer presentar este trabajo que recoge los proyectos de investigación reslizados por los estudiantes del Master Universitario en Ciudad y Arquitectura Sostenibles coordinados por el profesor Domingo Sánchez y los de los alumnos del Taller de Diseño y el Laboratorio de Investigación "Misura e Scala" coordinado por los prefesores Contin, Fraschini y Moreno.

Durante el taller organizado en Doñana por las dos escuelas se analizaron los grandes temas heterogéneos y complejos relacionados con un paisaje frágil y rico, que se enfrentará en las próximas décadas al cambio climático y a la presión del turismo, cada vez más global, pero sostenible.

La confrontación con los temas relacionados con el área de Doñana, ha permitido a los jóvenes estudiantes de diferentes realidades europeas abordar la cuestión de la escala metropolitana, el paisaje y las infraestructuras para construir nuevos escenarios posibles para el diseño urbano de la ciudad contemporánea, que deberá hacer frente a un nuevo concepto de tejido de la ciudad relacionado con la teoría del urbanismo del paisaje a nivel europeo.

Desde esta perspectiva, los grupos de estudio han formulado sus investigaciones y propuestas sobre El Rocío, el litoral de Doñana y algunos núcleos urbanos de municipios del ámbito de Doñana, sobre todo, haciendo hincapié en la necesidad de reconocimiento y construcción de la identidad, mediante la recuperación de diferentes especificidades territoriales estructurales y formales del contexto, que alimentan el proyecto urbano dentro del paisaje protegido. Sin embargo, todos los proyectos han intervenido en Doñana asumiendo que las nuevas tecnologías e infraestructuras sostenibles posibilitarán la conexión de este espacio con la red de ciudades del mundo, sin renunciar a la consideración de "la otra cara" de la ciudad urbanizada.

El presidente de la Diputación de Huelva *Ignacio Caraballo Romero*



CONTENTS

General issue		
Papers	Out of the city Antonella Contin	.9
Regional scale landscape project	Landscape Urbanism Antonia Chiesa	.23
	A landscape conversation Ed Wall, Tim Waterman	.33
Environmental project	Plan for environmental and economic balance of Doñana Pedro Ortiz	.45
	The multifunctionality of Doñana's landscape and ecosystems Gioia Gibelli	.51
Cultural Landscape	Urban design's point of view Ernesto d'Alfonso	.63
	The regeneration of litoral space at Doñana Domingo Sanchez	.71
	Doñana: the other band Daniel Zarza	.79
Climate changing project	Considerations about bio-climatic options for designing in the area of Doñana Gian Luca Brunetti	.87
Master thesis		
Introduction	Experiments between landscape and urban design in the net city Matteo Fraschini	.99
Thesis	Embracing the waterfront Giada Nossa, Marzia Onori	.105
	Landscape safeguard & Waterfront Mutation Davide Andrea Nolli	.113
	A methodological experimentation <i>Ivana Juricin</i>	.121

2010/11 Lab section

Introduction	Fragile landscape Michele Moreno	.131
	Doñana Blueranstadt Alessandro Frigerio	.137
	Experiences of a landscape Francesca Guffanti Pesenti	.141
Milan school's works	Landmark in mutation - Elena Matossi, Anna Morani, Davide Morra	.147
	Visual machine - Vittoria Rossi, Manuela Scotti, Chiara Signoroni	.149
	Out of the park - Arianna Tognini, Felicia Trotta, Andrea Zammataro	.150
	Recombinant Landscape - Bianca Procino, Enrico Taubert Pozzi	.156
	Anti-urban city - Giorgio Larcher, Giacomo Martini, Bianca Miglietta	.154
	Sailing Doñana - Hongseob Choi, Chella Fajardo, Michele Faridone	.156
	The edge - Anna Andreoli, Marta Barozzi, Cristina Berzolla	.158
	Red path - Stefano Ceresara, Matteo Penzo, Emanuele Savino	.160
	The center of the edge - Lorenza Mariotti, Alessandra Rimoldi, Claudia Strabla	.162
	Logistic district - Francesco degli Esposti, Giulia Mazza, Andrea Zecchetti	.164
	Diachronic amphibian - Jacopo Berlendis, Silvia Mundula, Matteo Taramelli	.166
	Swing-in-between - Lucia Formenti, Ludovica Frezza, Elisa Ghisi	.168
Seville school's works	Ephemeral structure marking - Laura García Villafaina	.172
	Invisible Doñana - Manuel Blandón de la Corte	.173
	Between nature conservation and human welfare - Marta Donadei	.174
	Towards a territory+solidarity - Virginia Arnet Callealta	.176
011/12 Lab section		
General introduction	The raising consciousness of a land Giacomo Moretto, Mirko Vescio	.181
	From city to landscape Luca Carizzoni, Emanuele Re	.185
Appendix		
Bibliographic notes		.189





Antonella Contin

Out of the city

Re-territorialization of the human habitats at the net-city's scale. The climate question and sustainable eco-tourism model.

Lack of architecture and inhabiting denial. The natural nature's destruction plan.

Throughout Doñana's territory, we can see the lack of architecture which is actually the inhabiting denial: it is a wild land, fluid and in a loop of transformation and growth. It is a big mutant, in whose reality the movement is essential. So here is the matter of significance in inserting a straight architectural value in a fluid environment where it seems more effective just to welcome this fluidity instead of keeping on with straightness. Sometimes here we live in a lack of contact between reality and life. There is a timeless dimension. Landscape with all its power is out of scale compared to the human being. Life is condensed and stuck in few places. It is not spread around the territory: a conflict does exist because there are no common places, neither at El Rocio nor Matalascañas, for city users. There are just dynamic spaces where they concentrate quantities, again. Science of composition is not applied as knowledge which allows to put together different places. There are only plans for the dunas and marismas' movement and it is of course a sightseeing point of view, which is not for staying. The need is to be suitable for the new scale of an original landscape. Inhabiting could be allowed just in this complexity of time and space. It reminds Harent's thought: "we belong to the world, not just in it. We are not just leaning on it, but we belong to it and inhabiting must be a dynamic and open action".

For the section's cover. The Guadaquivir river. (Image by M. Fraschini)

On the right.

Sketch: the mouth of the Guadalquivir (source arch. Pedro Ortiz_World Bank)

On the next page.

A view of Matalascañas.

Sketch: gradient of formality.

Belonging to the world. Inhabiting through the body.

How is it possible to think about common spaces in which we can lay on as place? This is the question we must answer to, in order to feel at the scale we have been dipped into, through an exclusive functional accessibility, unable to build landscape. Because our body is a certain place, but we need suitable spaces which allow us to keep in touch and meet this sublime and antihuman landscape (intersomaticità). We must learn again to recognize the natural, as important belonging to our own body and identity. Building and designing today, means to pay attention on this relationship. This means again: create connection through the construction of a device/MAP, which lets it come out as a physical fact for human being. Architecture is a structure made of relationships, because it relates itself to different materials and it is basic to join those materials together and let them become a built thing. So architecture joins a dialog with whom lives and inhabits it: human's relationship with is own space, time and physical place, which is our body among humans. Architecture as a happiness promise? It could be really true in Doñana, just looking at architecture in a continuous mutation, which is always contra naturam, in my opinion. That means it is not a natural fact: it is necessary destroying to build. So we do need a plan about this destruction.

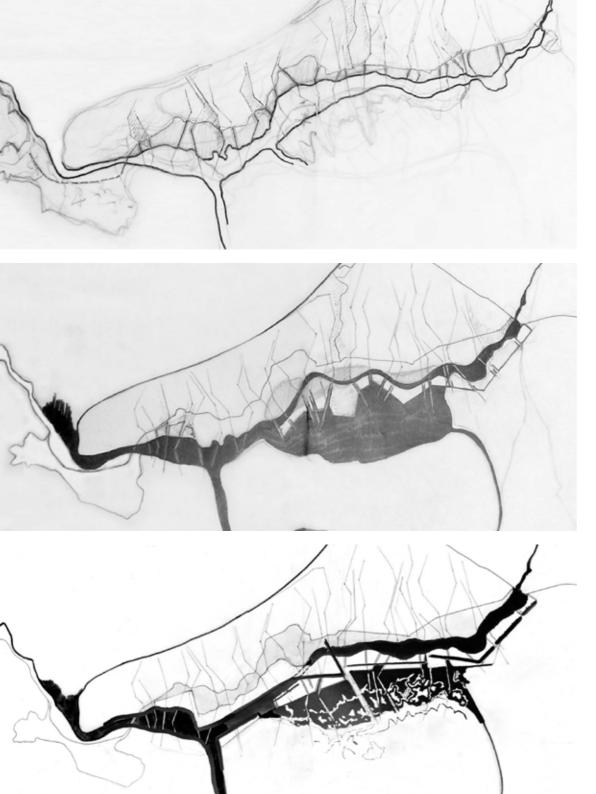


Techno-pastoral space and neo-eco-pastoral landscape in relation to architectural heritage speech

It is not by chance that when man has to act in such powerful natural areas, he feels the need to go back to a theological background: we can actually meet the concept of destroying and building in the Holy Bible, which describes the human being as the whole world's guardian, but not unambiguously. In the Genesis 2_15, man lives inside the Eden's garden, where he farms and takes care of the land. The picture changes and turns into a situation characterized by the dominating and the subduing, fear and terror, when God leaves

the world's creatures to Noah's care, after the Fall. God blesses Noah and his line and says: "And the fear of you and the dread of you shall be upon every beast of the earth, and upon every fowl of the air (...)". From that moment Man is allowed to eat the other creatures. He will not have to take care of the earth and farm it, but he will exploit it as it is, a pure layer of soil no longer endowed with the symbolical value of Mother Earth. With the coming of the modern age, the world's soul falling, as a result of the anti-idolatry in the Christian and Jewish traditions, has put into human hands an empty and homogeneous space, which is fit for the dominion of science and technique. Let us think of Francis Bacon when he claims that "science is power" and

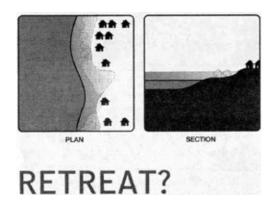




of the biblical speech which joins here man's promethean attitude, which sees in nature just a series of resources. The technological man is the heir of that wise sovereign who was entrusted with the world's leadership. Then he became an absolute monarch, from homo faber to homo creator, with a big potential towards this predatory attitude. So today it is important to take some responsibilities. It is possible to get out of the leviathan logic: look at the other one, whether animal or man, as one close to ourselves and reorganize the living utility together in the world. Building for everyone but respecting everyone. If our place stands in the becoming and it is up to us to give form to this evolution, the technique must have the sense of the limit and measure (of the fact to stay here, but to go through), but it is always a basic skill to be able to go back to live according to nature.

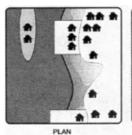
An era of uncertain intermediate phenomena in the use of public space has started. The concept of city square, that was once understandable both politically and physically as an element of rooted identity, now becomes a techno-pastoral space where the historic centers are specialized but no longer function as local reference for the global space, or are miniaturized and fitted into new urban entities (heterotopias).

We want to find new factors of spatiality: today we are aware that exchange poles work as public spaces, which are very close to the idea of a green built space in the landscape. So we should provide them with an urban meaning avoiding a mere utilitarian purpose. In particular, working with the differences emerging from the technological











DEFEND?

area, it is possible to start anthropological considerations comparing concepts of proxemic, habits, and territorial economic constraints, and finally considering the transgressions of the local area which are new factors of spatiality. Doñana is a place in which it is possible to imagine a new space for the relations that deal with a natural space, and need new technologies to survive, new green economy to save their deep inside identity. The ecological return to nature allows us to be shepherds again, to be plants, to live with nature in equilibrium, submitting ourselves and becoming natural again, using necessary resources with the technological advancements and the limits and thresholds of coexistence. We need to build a neo-eco-pastoral landscape, as a new kind of nature. We need to ally ourselves with the natural landscape we still have by adjusting our aesthetic tradition to our renewed environmental knowledge. Building self-sufficient forests is possible: building living superficial and subterranean lakes that collect and store pure and clean water, as opposed to the ever more present bottled-water monopolies ... like pieces of an ecological work of land art (Zarza).

ATTACK?

Building beauty. Reconcile with the Earth.

We co-inhabit with humans and all other creatures into the nature and this must remind us an idea of redevelopment of the places' feeling about this coexistence. So the place itself is qualified with specific features, which are the result of its geography and history. The man must recognize these features to build his own living space. Then it is necessary to reconcile with the earth just to inhabit in the world. Limit, measure, but also feeling of the possible, to re-think an inhabiting way. So it seems useful to get back to the Avant-gardes' lesson, to their reformist posing, to an idea of new communities able to think and apply a new planning strategy, about life and city. Then this is here, in Doñana that we have to be able to read an encouraging sign from the wild nature and not just a comforting one. Here constructing is possible if the new can act onto the memory, if it can recognize the need of reconstructing, but in a concept where History and Tradition and Landscape are thought both for are own days and a long time. Where live in beauty is not see just as an aesthetic phenomenon, but is build the beauty, with the consciousness that are days are the product of the whole modern image's culture.

Above.
The strategy.
(Ed Wall Lecture: Rising sea levels /rising currents)

On the previous page.

General design's issues: construction of the inner lagoon.
(Sketches from the workshop)

General issues

Project Area: Doñana National Park (Spain): how do different tourism model systems provide a way of thinking through these questions, looking for a contemporary idea of landscape and picturesque.

General Question: Outside the City. How do metropolitan centers construct the rural countryside, and what effects does this new relation have on the people living in non-metropolitan regions? How does the rural environment react and speak back?

The area of Doñana introduces to general issues about the architectural and urban discipline. Among those, the one of the new regional scale of the city, so the coherence of a territorial plan and the illegality's theme, which transforms the territory in a losing system by exploiting. If landscape is a transforming element, the unauthorized become an alien organization to the territory's system, straight and profitable. The climate change increase the situation, because it acts onto the economic model, the energetic system and the lifestyle of a society. Every urban reality might within just two generations, get a strategy of retiring, defending or attacking which refer

to resilience and robustness values of a settlement and its own image. It might not only be conformable, but it might be able to learn from a feedback system, which is bring it to get the changing becoming deepness. This is it also for its image, which might represent a guarantee of the urban scene's maintenance, to prove the deepest identity of its biography. Since a long time we have been watching it is not necessary referring to an economic model to get the change of the productive system, but transform the urban system instead. This means to transform the functional times of a city. So a new lifestyle will come up. New ways of consuming and so a new productive structure. For this, our planning prospective is about the urban metabolism, which refers to the cycle of life of a city, led by three operations (metabolic): preserving through maintaining, performing through replacing and growing with development and trasformation.

So our planning strategy is under the perspective of the urban metabolism, which is the city's cycle of life managed by three operations (metabolic): preserving by maintaining, perfecting by replacing, and growing by developing, if it transforms.

Below.

Sketch: geographical structure of Andalusia

(arch. Pedro Ortiz_World Bank)

On the next page.
Seville's harbour.
The Marismas.
(Image by Matteo Fraschini)

The Doñana ocean. (image by Davide Nolli)



General issues of the project

A project of mapping for a cultural construction of Doñana (which must involve man).

One of the main theme about planning in such an area like Doñana, which for us it stands inside an open triangle connecting Seville to Huelva and Cadìz, is that of an ecological landscape. So a mapping project as an operation of designing and also of analysis, consciousness and translation of environmental knowledge. This knowledge which is layered through time and often implicit into the city's ecology, needs to be undisclosed and put to the attention of the city users. So they are appreciating and comprehending in a deeper and deeper way these places. Then are found out values bound to geography and history of a territory and its landscape. This is the deepest reason behind our aim of joining this site to its culture: the possibility of revelation, by prevision mapping, field mapping towards immersive one, of a consciousness which has a deep relationships with geography and urban biography. These are daughters of a pre-modern culture, more sensible to a deep connection with environmental values and new, or reactivated, parts of the territory into the original dimension of the city/region system. The mapping project gets for us a spatial dimension, a cultural dimension and a visual one, which mostly in Doñana become a will of designing a passing vocation of the place, through cartography. Our maps' genesis, which are documents actually, born from an abstract diagrammatic approach, which trends to meet a more realistic one, - as it can have a meaning today due to languages, habits and contents they perform through new technologies -, in order to get back a plasticity, a touching value and dynamism. We are discussing







on the scale matter, the different space readings, with its hierarchies which determines for others the basic aspects of social readings, and the stories about transition practices, to realize the relationship between infrastructure and landscape: among the movements generated by settlements' principles which have learned the know-how about interpreting that land, finding out where to establish in an architectural and urban way. So the settlement is a point of relationships, both of scale and visual. We represent the ways of the contemporary everyday practice, a drawing of an evocative landscape, the concept of border, until the micro-transition, the concept of inhabiting and the possibility of doing that. A mapping project then, for a cultural construction in Doñana, which involve the man.

Designing the climate change. Protecting by acting on the territory.

So here it is our aim to define a concept of ecology where the informational system, which follows the urban and architectural project, must be intended with the wider matter of inhabiting the own place. This should happen through an integrated systemic perspective, which point out the territorial project's coherence, and define the elements which allow to get a hybrid natural city-fabric. It also must re-think the concept of defending as a real action onto the territory. Then comes our issue: designing the climate change¹, which the uprising of the sea level represent the pretext of. If we accept a definition of environment as entorno che evolve algo2, the term medio introduces the matter of green infrastructure, which has to relate with the usual grey infrastructure, the bone system of region. Those infrastructures are combined by the rule of the necessary and enough, to

obtain a structural system, able to welcome different architectural and urban systems and to put them together in a deep relationship with each other and the citizens or city-users.

Guadalquivir:

the whole region's productive axis.

In particular, the Guadalquivir river is for us the whole region's productive axis³. Then its landscape is a real element for the territorial transformations, but just through a cultural, energetic and economic sustainability, which must be thought with the usual inhabiting rituals of the territories between land and water. In these places the territorial breaking mostly means loss of energies, which is the very first reason of the social immobility. This is what causes the unauthorized building, landscape destruction and illegality, which a society has to defeat. Beginning from the concept of urban metabolism, the change might involve both the urban patterns of cities, into those points of close relationship with the river, and the whole territories which the Guadalquivir flows through, thus regenerating those little border districts. The changes of relationship systems, which follow the radical transformation due to the climate change, will produce new lifestyles: consuming and production more suitable to a fragile land and a vulnerable and powerful landscape for its high symbolic value for the andalusian and spanish culture. This new lifestyle might be connected to a settlement which we called formal gradient settlement, where urban agriculture, new residential types and new accessibility through the concepts of European logistic city, will increase the quality of life, which is temporal equity among the different regions of the territory: it means a really true idea of democracy.

Doñana's comprehension in the net of medium-size Andalusian cities

A central place for human intentions.

Today it is clear that the urban space must act in a bigger and more complex configuration, a specific geography which tends to be expansive and dynamic in its territorial area⁴. It takes in inhabited zones or inhabited by an unconventional rule, so influenced by the city's lifestyle. These are provided by city-ness or city's effect, which means they are attracted by the symbolic zone of the contemporary metropolis, giving origin and concreteness to an imaginary-community⁵ which inhabits lost places in a net-world built by the different affections of the media.

That is a regional net of settlements (Net-City) structured by a hierarchy, which create a new urban pattern sometimes continuous. The urban economy analysis told us about this phenomenon in terms of land's value and other measures of attraction and comparative advantage bound to the location, based on the accessibility, on the density of activities and on the potential of creating a new urban development. The urban space, considered as a spacial system itself, has been read in a wider system made of analogous spacial structures both connected and unconnected (telecittà): an archipelago. In this way the space of the city-region has been seen as a whole of relationships among different levels, which actually extend their effects towards three different directions (Soja). It is getting harder and harder to describe this mutable structure by statistics about the population, by studies about activities' models, income accessibility and density indexes. It becomes basic to go and

look for its most vital part, its geo-historical DNA: geography, memory, geometry mean finding back its own spacial dimension, because it is from a certain geographical point that is possible to apply a spacial practice which is able to determine such a powerful starter by itself, which generates and sustains innovative changes into the human society (social, historical, economical and spacial). For ages the city has been the place of the urban metabolism and, due to that, the place of transformation and evolution, able to build the double urban and social armature which must never be disarmed, because it is a basic system not just of communication, but mostly of a competence to relate with the place and the land (d'Alfonso), intersomaticità of bodies oriented in the same field. This capability of directing, which is typical of the human being's action onto the land, is possible just in a place which becomes again the focus of human intentions. This lets man able to transform the natural event into a symbolical language, after a mental elaboration (wish and memory's cross): symbolical mediator. Then primal activity is the planning of the city-territory, which re-organizes territorial identity, by different possibilities of relationships between space and society and a re-location of the human places. The local pattern is the urban armature to which the territorial transformations hang on, mostly because they are a symbolic horizon since the beginning of times. The symbolical comes before "intersomaticità" in being the geographical location point, basic to identify the other identities: this is where the global becomes localized and at the same time the local becomes globalized. The basic matter to worry about is the crumbling of a more symbolical than physical relationship with the place, which does not allow to determine Choay's "building capability" and in the specific to build monuments whose power, d'Alfonso reminds us, lies in knowing how to make man act in his space and whose decay is in the loss of effectiveness of that ability to act.

The contemporary urban model's critic. Conceptualize spaces no more named.

The contemporary urban model's critic pass through the ability to discover inner zones which have no name, no concept and it is applied beginning from a critical analysis of terms: city, urbanity, urban, urbanization. We can say the term Urbanity means an acting hierarchy and it is the space to set the possibility of communication through the physical sensibility. Then Urbanity is the whole of urban pattern (spacial dimanesion of the city) and conviviality (domestic), which comes from environmental knowledge (New Humanism), from the different identities which determine the uniqueness (and not the unambiguity) of a place. This stimulates the belonging sense of the citizens to that place (the place which I belong to and which doesn't belong to me). Of this place we can point out the beauty (what makes it different from others for us).

Specific goals of the project

A problem of scale of intervention: am I watching from too far or too close?

So, we have been considering the Park of Doñana as symbolic mediator and intermediator for the definition of the identity characters of the Guadalquivir River and its sustainability in an economical, energetic, cultural perspective. As we said before, we want to criticize the contemporary urban model through a rediscovering of zones that are not named, not conceptualized by giving them structure and image. The aim of this research is to re-theorize the collision of the public realm and the sea edge, and provide a range of design precedents for this emerging urban space phenomenon. First of all, we must consider the scale of intervention. About this, Grahame Shane wrote: In the film "Two or three things I know about her" (1967), Jean-Luc Godard describes the huge societal mutation of a modernising Paris by attempting to get very close to one individual. As we examine new cities formed by new technologies in a new millennium, the question Godard continually asks himself in the film can be redirected to today's urbanists: Am I watching from too far or too close? (McGrath B., Shane G., 2005).

The site

The Parque Nacional de Doñana is one of Europe's most important wetland reserves and a major site for migrating birds. It is an immense area; the parque itself and surrounding parque natural or Entorno de Doñana (a protected buffer zone) amount to over 1,300 sq km in the provinces of Huelva, Sevilla and Cádiz. It is internationally recognised for its great ecological wealth. The park as a whole comprises three

distinct kinds of ecosystems: the marismas, the Mediterranean scrublands and the coastal mobile dunes with their beaches.

The configuration of the Parque Nacional de Doñana is a result of its past as the delta of the Guadalquivir river, the 'big river', or Wada-I-Kebir, of the Moors. The river has only one outlet to the sea, just below Sanlúcar de Barrameda. The rest of what used to be its delta has gradually been blocked off by a huge sandbar that stretches from the mouth of the Río Tinto, near Palos de la Frontera, to the opposite riverbank of Sanlúcar that sea winds have gradually shaped into high dunes. Behind this natural barrier marshlands (marismas) widen to the horizon. For centuries there had been only a vacant built spot on the map between Lebrija in the east and Almonte in the north west, but recently entire towns and villages have sprung up on the west side of the Guadalquivir, and the resort town of Matalascañas has brought urban sprawl to the south-western edge of Doñana, a place once occupied by reed-thatched fishermen's huts. A permanent threat to the Doñana's ecosystem is the growing of new rice fields and other agricultural projects on the north side of El Rocío, whose run-off waters sluice pesticides into the marismas and the sulphur mines upstream at Aznalcóliar which was effluvium into the river⁶.

Preliminary observations

Out of the city. Natural Park. We can observe natural phenomena whose temporal cycle is further on those almanacs or solariums of the stations in the year. Rather than that of the human generations it is a long period, secular or plurisecolar. And preliminarly it is useless for direct and immediate exploitation by men.



Scientific investigation of the nature and aesthetic moment. We want to introduce the anticipation of a "revolutionary" climate change as a dynamic element. The hypothesis is 3 meters in 100 years. It represents a "provocative" element: 3 mt. for the sea level to prevent and regulate. We observe the natural phenomenon of sea erosion on the coast and river transport of sediments that the wind gets up and deposited in mountains of sand: men have planted coastal desert and provided villages with animals, and birds that in their migrations choose Doñana as meta or stage. We want also to contemplate the social phenomenon of the pilgrimages from Seville, Huelva, Sanlucar de Barrameda.

Indications about Project

We consider the situation from the point of view of the silence of the slow movement, the pedestrian limit, from the careful and detailed observation of the elements of mineral and vegetable nature. Therefore: water, canal and berths; rigging of the routes of the romeria and study of the entrances to the Park as cult phenomena of long period.

We want to understand what role Architecture could have in anticipating the future. The first step will be to test the regional impact of our design project. We have to produce interpretative maps, which can determine new relations among Sevilla, Huelva and Cadiz, among different sides, land uses and functions of the Parque Nacional de Doñana. Through these maps we will understand how Doñana can face the challenge of the rise of the sea level, the climate exchange, which are starting points to imagine what type of architecture (new built sustainable form types), landscapes, city plans we could imagine. That kind of project area, where we can find

a strong relationship among environmental knowledge, construction, urban and natural planning, permits us to conceive its waterfront as a porous edge of a new multi-strata urban ground. This layered wet land band of new continuous natural habitat is a self sustaining area, a hybrid system involving infrastructures and new urban ground (new street experience: green streets or trenches streets) and includes a re-constructed continuous ecological and urban ground. Water becomes an urban connective element to create a continuous natural habitat (new physical types of ecological corridors). This new dramatic topography and bathymetry of the vibrant waterfront can increase public open spaces, construct an amphibious landscape for a Sustainable Tourism Model System: public, natural, working and living (aqua-housing) waterfronts. Inside the park, the presence of the sanctuary of the Rocio, where a new type of tourist-hotel receptiveness is planned, allows to consider a geographical relationship between the park and the rest of the Andalusia region.

Specific goal

The climate issue. "Local governments and civil society groups around the world begin" to make the climate question "about what differences of daily decisions they have to take to make their communities more resistant to impacts of climate change." At the same time, being immobilized by fear of unsurmountable problems of climate or the urgency of everyday challenges, there are a multitude of creative and innovative solutions that they can implement today to reduce current and future risks and expenses. In most cases they find that these measures make their cities more livable, more green,

more safe (safe), equitable, and productive than now. "We want to take up the issue of the climate change in positive, as an occasion to give today a structure and an image to the territory, in the light of future changes, designed in a year horizon ranging from 100 to 200 years. The territory of Doñana, indeed, does not present the human cycles of agriculture but those incommensurable of nature as a cult, as it was that of fertility that el Rocio Virgo is associated with: the religious cycle of the pilgrimages. This all is the true matter Out of the City which teaches us a different vision not only geographic, but which has to be considered also in the project.

The model

The present flows on the territory may be assimilated to the goods: they are consolidated, planeables and exploit many forms of transport. The District of Seville - Cádiz specializes as a district of the eco-sustainable tourism which can offer a temporarily accounted variability of supply: las dunas de Doñana park, the urban region of the Bay of Cádiz, history of Seville and Huelva, the technological park of Sanlucar la Mayor, Almonte, Sanlucar de Barrameda, Isla Mayor and City Pioneer as historical and geographical points that due to their size can begin the process of vision. A change of vision is indeed necessary. In the light of the modifications that this coast will support in time, a different approach to mobility by electric machines allows to think a structure of the movement for the territory, able to connect directly Cadiz, Huelva and to El Rocio to Seville and Jerez airports, which will have to be in the system as adductors of the most distant.

This proposal instead of pointing at a development all based on the "just in time", considers that the long time in history and long-term nature are values to which it is also possible to determine an economic relapse. We consider three metabolic operations: maintenance for conservation, substitution by an improvement and transformation by growth, and three approaches to respond to the climate issue: withdrawal, defence, attack. On the basis that the District of Seville -Cádiz understood as the city network, where to find points of Exchange in the territory of the Park of Doñana for new non-polluting technologies, has been analysed in a future phase which will see the flood in the marshes of the Guadalquivir to fee + 5.00, which is the quota of Rocio, and regulated with dikes, it see the creation of an inner lagoon.

The access to the Park is understood as a flow of citizens and the Park itself is not only protected, but exalted in the noble character of his former and current treatment. We also plant the restoration of old channels and the definition of some courses within the hypothesis of a lagoon. One of these will be the physical Union with the parque tecnológico de Sanlucar. A new port to Sanlucar de Barrameda will allow exchange of Cádiz to the Park.

The questions of the specific area project

We have underlined some elements of this landscape. Among waters: Ocean, lagoon and salt mines/ work water and leisure water; time

densification and space variation: the further the park is perceived in terms of accessibility from the city, the nearer it becomes in terms of possible use as new leisure reserve for the city; location of the poles along the cornisa of framework, which could intensify and structure the park in its relationship with the new bay, the river and the other big cities; proposal for a selection of points of the map through the design of new typologies, and theme park. The park is like a door which gives access to the city (bay central park). We have to determine: how to enhance dynamic relations and economies involving even the whole Comarca; how to design the border: edge park dedicated to ichthyic, education (life, flora and fauna) food culture, tourism.

Doñana is a 'green door': from its centre el Rocio paths extend towards San Lucar de Barrameda, Siviglia, Huelva ..., paths which follow the "caminos de romeria" and through el Rocio, link the coast to the inland of the region. A project of landscape is connected with the concept of a sustainable development. It means how to design the coexistence of the different functions; how to promote innovative dynamics for the urban intensivity. Balancing grain to obtain social economical and environmental equilibrium; how to design a landscape of the infrastructure experiencing the park from the street and the train, which means different speeds of perception, creating a recognizable landscape as brand; how to research on the

image of the space of transition: landscape built through the design of unbuilt metropolitan spaces (buffer spaces between park and urban areas) where it is possible to locate hooking metropolitan functions, so the metropolitan space can take advantage from the park for the public use; how to protect the landscape, which means how to transform it, also dealing with governance issues: exploring public/private cooperation looking for virtuous dynamics, dealing with the normative framework to manage the housing and tourism development; how to outline a new paseo maritimo - an important unbuilt space which needs to be connected with a general system related with the coast and the inland - which could act as a connection space from which to get aware of the value of place and its leisure and relax opportunities - the importance of developing a belonging feeling among the citizens; how to deal with environmental issues: integrated solutions to face light pollution, water pollution (black waters, acid rains), bioclimatic solutions; how to deal with value of landmarks: improving the imageability of place acting on the landscape and historical value.

The Architectonical Project will determine new built sustainable form types according to the urban metaphors: Venice city on the water, Angkor city on the water and Doñana that is added as a city of water and its Lagoon is drawn and presented as a new resource to inhabit the new metropolitan city dimention.