

Sustainable Landscapes: A vision for Piacenza agricultural park as rural heritage.

Introduction.

Contemporary cities have the challenge today to be sustainable. But what does it mean? Sustainability is a term that has been used not only for architectural or design purposes, but also we can relate it with social and economic growth perspectives or theories. Basically being sustainable means that it can be by its own, meaning that is auto-sufficient and doesn't need external help to maintain equilibrium. Nowadays cities are struggling against an inevitable phenomenon called "Urbanization". In most of the cases, urban planners' main concern is how the city is going to supply the basic resources and infrastructure to a population that every year is increasing dramatically, due to social migration that can be caused by different factors as work opportunities, war, natural catastrophes, etc. Since the XX century this concern have been in the mind of notorious urban planners and architects as German architect and urban planner Ludwig Hilberseimer and American architect Frank Lloyd Wright, who started to propose theories to face this problem for the close future. The Decentralized City by Hilberseimer and the Broadacre City by Wright are proposals that have some factors in common. These proposals touch mainly the problem from a density point of view; in both cases the density is related to the amount of green spaces and natural areas in contrast with the constructed area, versus the traditional understanding of density to refer the number of people inhabiting a given urbanized area. The agricultural system incorporated to the urban infrastructure of the traditional modern city, is the main morphological and typological characteristic of these two projects, transforming the city into a constant productive area. More recently, proposals as La Villette by OMA and Agronica by Andrea Branzi, took the same problem of rapid urbanization and propose a city that, taking into account what Hilberseimer and Wright proposed before, can be flexible and change according to the circumstances. For this purpose, architecture and urban planning will not work independently anymore; related sciences as biology and sociology will be incorporate to develop a new Ecological Urbanism, expanding the traditional framework to describe and solve urban conditions. A flexible city must be adaptable to the different circumstances that will make it change, just as a living organism does: in order to survive, an organism (animals, plants, bacteria, humans) must be able and learn how to adapt to the changes of the environment (natural or artificial), and as Darwing said in his Theory of Evolution, adaptation is the key to survive (Natural selection).

The case of study for this project is Piacenza, a small city (100.000 inhabitants) located in the border of Lormbardia and Emilia Romagna regions, surrounded by Rivers Po' and Trebbia. Even thought is not a big scale city as Milan or Bologna, is an important geographical point due to its closeness to Milan and the intersection of two main national highways (Torino-Brescia and the Autostrada del Sole).

What called my attention of this city is the presence of the Rivers, and how through the years in which the city have develop a specific urban morphology, these natural elements

have been always kept aside, denying any physical and social connection between the urban tissue and the natural surrounding environment (rivers, agricultural area, natural forests).

In relation of what I have said before about sustainability and Ecological Urbanism, I want to propose a project that is not going to be only an architectural project, but it intends to be a social and cultural proposal as well (Landscape), that will help the city and its citizens to recover a lost relationship with the natural resources, giving to Piacenza the opportunity to keep growing as a sustainable city in morphological, economical, social and cultural way, having the agriculture and its components as main economical and environmental source.

Background.

-What is Landscape?

Ecological Urbanism nowadays is closely related with a new topic called "Landscape". Most of the people will consider that Landscape is only related with the design of green spaces with natural elements, as trees, and its presence in the city or in a specific area. But Landscape means much more. According to the UNESCO (1992), Landscape can be categorized and define:

"1. A **clearly defined landscape** is one designed and created intentionally by man. This embraces garden and parkland landscapes characteristically constructed for aesthetic, social and recreational reasons which are often (but not always) associated with religious or other monumental buildings and ensembles.

2. An **organically evolved landscape** results from an initial social, economic, administrative, and/or religious imperative and has developed its present form by association with and in response to its natural environment. Such landscapes reflect that process of evolution in their form and component features. They fall into two sub-categories (labelled *a* and *b* respectively for the purposes of this review):

(a) A **relict (or fossil) landscape** is one in which an evolutionary process came to an end at some time in the past, either abruptly or over a period. Its significant distinguishing features are, however, still visible in material form

(b) A **continuing landscape** is one which retains an active social role in contemporary society closely associated with the traditional way of life, and in which the evolutionary process is still in progress. At the same time, it exhibits significant material evidence of its evolution over time.

3. An **associative cultural landscape** is a landscape with definable powerful religious, artistic or cultural associations of the natural element rather than material cultural evidence, which may be insignificant or even absent."

“Landscape needs to be understood as being either territory or scenery; it can also be conceived as a nexus of community, justice, nature, and environmental equity” (Olwing 1996) Thus, landscape is also the scene of action and an expression of human ideas, thoughts, beliefs and feelings.”¹

This definition of landscape is very pertinent to understand better the role of the landscaping and architecture in the present and for the future. Landscaping has been misunderstood and under valued, because at the end is not only think about where and how to plant a tree, or the composition of a garden, it also implies the architecture and the city as main elements and people as main actors, and how these two factors interact with each other. So, the idea of starting consider Landscape as something more complex will help us to understand better the problems and look for adequate solutions.

- What is Agriculture and rural landscape?

Agriculture is the reason why our contemporary cities exist nowadays. It was born when the human discovered that the land could be manipulated and can be use to grow food. From that moment, the nomadic settlements reached an end, bringing with it the rise of the sedentary human civilization. In colloquial terms, Agriculture is the cultivation and growth of animals, plants, and another kind of food or medicinal products, necessary to guaranty the survival of the human settlements.

In occasion of next year EXPO MILANO 2015, Agriculture is the main focus as being Feeding the Planet the main topic (Nutrire il pianeta/Energia per la vita). The expo will approach the problems of nutrition and the natural resources of our planet. Questions to be answer during this time related with food production, nutrition and water supply, food security and the biodiversity of our planet are going to be crucial to guaranty a save future for the next generations and a better present for us.

“From historical, archeological, anthropological and sociological perspective, agrarian landscapes are studied as a characterizing part of an agrarian civilization. (...) Agrarian does not only refers to the land use (crops, etc), but also farm and field structure, use rights and economy, i.e. to a whole cultural system. Thus, it includes also farms and settlements related to the agrarian society. Agricultural landscapes, however, are often seen in the context of economical production.”²

-What is rural heritage?

“The landscapes carved out over centuries by people who lived off the land and, more generally, through the exploitation of natural resources. The buildings that make up what is referred to as rural architecture, whether or not they are clustered together (villages, hamlets, isolated houses and buildings), The local products, adapted to local conditions and the needs of those who developed them, The techniques, tools and know-how that have made creative activity possible and which remain essential for maintaining ,restoring, changing and modernizing its results, in accordance with the design logic and aesthetic of

¹ Prof.dr.em. Marc Antrop. Some background on landscape concepts. Pg. 1. 2014.

² Prof.dr.em. Marc Antrop. Some background on landscape concepts. Pg. 1. 2014.

the buildings/environment/landscape as a whole. These techniques extend to symbols and cultural meanings in the widest sense.

However, we cannot discuss rural cultural heritage without referring to two obvious facts. The people who use the countryside, who live there and who have often played a decisive role in ensuring that these assets have survived are increasingly aware that it belongs to them and are becoming more vocal on this issue. At the same time, the countryside, and the heritage that it represents and contains, is considered the property of every individual, including those from towns as well as from the countryside.”³

If at the end all the elements that compose what we call Rural Heritage belongs to everyone (countryside and city) why can we start to take care of it and make something to preserve it, instead of reject it, building elements that won't contribute to its development and miss using its natural resources?

Heritage Elements.

1. Water: wash-houses, fountains, watering places, ponds, canals, locks, etc.
2. Religion: chapels, oratories, crosses, etc.
3. Work: craftwork, agriculture, small traditional industries, etc.
4. Travel: trails, paths and roads, railways, etc.
5. Crossings: fords, bridges, aqueducts, etc.

“No heritage element can be understood in isolation. It must be reconstructed as part of a wider whole, in which uses, social and agrarian practices and imagination infuse life and connect it to other elements of heritage.”⁴

-Rural Landscape: the key for sustainable development.

Nowadays we have realized that rural activities have an important role for our social growth. This growth can be seen in two main points: Urban growth and Economical growth.

The urban growth regarding the city development in relation with the natural environment, and its elements, with the new technologies applied for a good infrastructure development. Agricultural activities become an important factor for this growth, because it is one of the main economical sources, which gives also the opportunity to enhance social cohesion and the social-cultural dynamics of the city.

The economical growth gives the opportunity to the city to become a point of reference in a regional, national and global scale. With the economical growth, other important aspects of the daily life are influenced as well, such as cultural and educational activities.

The sustainable aspect of the city is related with the dynamics and management of these aspects in the social life, being urban or rural, and how these aspects interact between each other and generate a balance for all citizens.

Understanding the importance of the balance between nature and city, rural and urban, is the only way to guaranty a sustainable approach and development for the contemporary cities. Agricultural activities have the same importance for the future developments as industrial activities have. Since the first human settlement, nature has always been the

³ Isac Chiva. Une politique pour le patrimoine culturel rural. Report to the French Culture Ministry, 1994.

⁴ European Rural Heritage Observation Guide. CEMAT. 2003.

most important factor to guaranty and determined the success of a specific community. They key has been always knowing how to manage in a correct and conscious way the natural elements and resources in our behalf. Our existence depends on it.

“Rural cultural heritage has become a modern asset. Far from being a nostalgic trip back in time, it is a springboard for development projects and can mobilize a region’s business community.”⁵

The Project.

-Presentation of the Site.

As mentioned before, Piacenza is located in the border between Lombardia and Emilia Romagna regions, limited by Rivers Po and Trebbia.

Due to its urban growth and morphology, the city developed towards south, letting the north part “empty”, being this the Agricultural area of the city. The highway, as a perimeter of the city, is also the main barrier that keeps the city from having a direct relation with the river Po’ and the agricultural fields.

The site have the advantage of being surrounded by two water corps, River Po and River Trebbia, being Po’ the main one, and because of this its wealth in natural resources is unique in the region, which makes it conservation very important.

-The problem.

One of the main problems of this site is not related with its morphological characteristics, but with the impact that it produce in the city and citizens social and cultural identity. The people relate the site with the presence of the River Po and its environmental characteristics - pollution, which at the end gives an unpleasant feeling to spend the time in. In this way, the city has denied this area as a possible public important area to develop activities related with cultural and social dynamics that can enhance the principal characteristic and activity carry out in the site: Agriculture. Besides this, but very connected, the physical barriers as the highway make even more difficult to establish a strong relationship between the city centre and the periphery of the city. I f we relate it with the urban history of the city, we can say that at the end the WALLS that once were protecting the city against invasions, are still doing its role -the high way, but in this opportunity not letting the people to see beyond of them, denying any external reality.

-The strategy.

The main purpose of the project is to recover and reinforce the relation that the River Po and the agricultural area used to have earlier in the 30’s, before the industrialization process that the city suffered after W.W.II.

This relation is not only a physical connection, but also a connection in terms of culture and social identity, which will permit to increase the belonging sense and feeling of the

⁵ European Rural Heritage Observation Guide. CEMAT. 2003.

citizens towards the natural resources and agricultural landscape. Achieving this, it will have an impact not only in an urban scale, but also regional and national, creating, perhaps in the future, a network linking all the main natural-rural landscapes, guarantying its conservation for the future generations.

The sustainable part of the project will be not only focus in a passive design, with recycle and adequate materials for the natural environment of the architectural element, but also will take the meaning of "sustainable" in a social and cultural way, that will affect also the economical perspectives of the city.

Sustainability comprehends equilibrium between the dynamics of a community in terms of SOCIAL, ENVIRONMENTAL and ECONOMIC. The point in which these three factors intersect with each other is what we call SUSTAINABLE.

In order to be sustainable, thinking about materials and construction processes in order to be cheaper and environmental respectful is not enough. Sustainability involves also a social factor, which most of the times is left behind. Understanding how the people can use and take an advantage of a specific project, being private or public, is the first step that we have to give in order to be sustainable, because at the end, if our proposal is not satisfying what the people was expecting and needed for, it would be useless, even if we had into account environmental and economic factors.

Architecture and the sciences related to it as Urban Planning and Landscape design have to respond always to a specific social problem, and give a solution in order to increase the social dynamics that were missing. In this case, as I have seen and in relation of what have been my perspective and relation with the site and the city, is necessary to enhance and increase a cultural relation towards the natural elements (Rivers and natural resources), in order to preserve the agricultural and rural activities that due to the globalization and rapid urbanization are in danger to disappear or deteriorate. Probably now we won't see it as a big problem, but in the future it will one of the main ones to solve in an urgent way. Agriculture and all the activities surrounding it are not only related with the growth of animals and vegetables, but it also involves national identity, culture and history.

-Presentation of the project.

The project is a Landscape design focusing on the agricultural and natural resources of the city. The proposal is based on the desire of experiment the site with all your senses, creating a new personal relation between the user (citizens) and the natural environment. As the agricultural activities that are carry out in the site have been there for years, it will be a determine factor for the design process. As a result, the project is based on a strong Axis that recalls one of the main axes of the city. The difference, is that even though is a straight and still axis, it gives the possibility to be flexible, developing different activities along it, as sports, leisure, storage –for the agricultural production, or just as a physical link between the city and the countryside.

The project starts at the military area with the axis that will be parallel to one of the main axis of the city –Decumano (Via Roma). This axis will become the main pedestrian walkway

of the project (approximately 1Km), and in order to have a better relation with the river and the existing dyke, this walkway will be elevated-keeping the same high as the dyke (6mt over the land level), allowing a different perspective of the area. The surrounding area of the axis is intended to be for agricultural production –Crops that will change according to the season, giving to the project the versatility of changing textures, colors and scents during the year. The river will also have an important role due to the flooding that will depend on the season, and as the main provider for the irrigation system for the crops.

Under this long walkway will be located in some specific points small buildings that will have the storage function for the agricultural production and tools. At the end of the walkway will be located four small buildings for sport facilities, making wider the target of the future users of the park. These buildings are thought to be adaptable according to the situation. Similar existing projects, as the one by Architect Aurelio Galfetti in Bellinzona, were taken as a reference for the flexible platform.

The fields inside the area of the park are propose to be rent to the citizens and small farmers, in order to increase the participation and activities of the people related to agriculture and preservation of natural resources.

The existing military area will be now the place for public workshops, an agricultural museum, and a public library all related to the agriculture and the importance to keep it alive.

The materials designed for the elevated walkway are: steel for the main structure –beams and columns, wood for the flooring and railing. For the small buildings a light wood structure will be ideal, in order to permit changes easily. The buildings already existing in the military area will keep the same, having only transformations in the inside, adjusting them to the specific use. Physically, this structure won't be immediately perceive as it will be hide between the trees and woods, with the idea to emphasize the attention to the agricultural activities and natural elements that surround it.

-Conclusions and final considerations.

From my point of view, a sustainable project has to accomplish three things: first, it must have into consideration from the beginning the real social necessities and the actual dynamics, in order to propose a viable solution. Second, it has to be friendly with the environment, meaning not only be conscious in the decision for the materials and technology that will be apply, but also take as a reference of design the existing natural elements that should be incorporated and maintain in the project. Finally, it has to make feel something different to the users once they make use of it; it has to make stronger the bound between city and citizens, between architecture and nature in order to make a difference and the change that was being expected.

Does this project accomplish what was mean for? This project will be a good solution for this case, because it intent to enhance the relation of the citizens of Piacenza with the natural surroundings. It will help the people to understand how important is to preserve

our traditions and natural resources in order to have a save future; it will give a different perspective of what evolution and improvement means, letting behind the technological meaning that we are use to hear and be part of.

An architect, beyond being a designer and a technologist, is a social worker as well. Is in our hands to shape the city and the civilization we need now. Designing for us is useless. Our designs should be for the people, taking their experiences and ours (as part of the community), to develop and achieve a project that will not only look nice and sophisticated (accomplishing Venustas, Utilitas, and Firmitas), but also will have that aggregate value that people gives to the architecture when is appreciated and well use. Architecture is the symbolic gesture of our existence.