# Sant'Erasmo, territory of Desire Sant'Erasmo toward Expo 2015

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### Abstract

The shrinking process is threading a strong agricultural vocation of an island near Venice (Sant'Erasmo) and it is asking for new sustainable models. Sant'Erasmo is a "territory of desire", it has all those natural qualities that people are seeking in the urban and metropolitan environment. Starting from this statement, the project proposal aims to envision and empower the inhabitants of the island, in order to stimulate the creation of platforms, networks and synergies to support the everyday life and the generation of creative entrepreneurial community, which uses local–agricultural resources and specificity to generate new social and economical values. The cycle of nature and agricultural meets the speed of information, knowledge and experimentation. Accessibility and territory's excellence are catalysts of a biological transformation, which embraces water-culture, agri-culture, hospitality, mobility, education, ect. This paper is part of a proposal promoted by the authors, which is already under the attention of scientific committee Expo Venice.

KEYWORDS: Agriculture, Expo 2015, Local Communities, Networks

# Introduction

"Virum bonum quom laudabant, ita laudabant: bonum agricolam bonumque colonum; amplissime laudar existimabatur qui ita laudabatur." "He is the man praised by our ancestors, who called him a good farmer and a good colonist; and those who were thus lauded knew that they had received truly great praise." (Marcus Porcius Cato, De agri cultura, praefatio.)

Are we talking about 160 B.C.? No, we are in 2011, on the island of Sant'Erasmo, Venice, Italy. In this delicate period, in which the trajectories of our individual and collective development and their underlying political and economic principles seem to be wavering, Cato's words seem to be a prophecy that has been proved right. It has a physical metaphor: an island a few kilometers from Venice, known as "l'Orto di Venezia," the Market Garden of Venice.

This city is constantly renewing its status as a laboratory of modernity, and still today, if we look a little further to include the lagoon, the amniotic liquid from which it was born, it has a lot to say on contemporary trends towards sustainability, and the biological and ecological vision of the city fabric. In the recent past, the island's agricultural vocation could have been considered as a threat to the territory's survival and a limitation of its development. Today, on the other hand, it fuels the rediscovery of new social, economic and educational roles, becoming a model for development and the preservation of rural areas in city outskirts.

Sant'Erasmo is an island on which two speeds meet, or clash: the cycles and rhythms of nature and agriculture, and the speed of information and knowledge. Inside the body of contemporary cities metropolises, agricultural and rural microcosms are developing and spreading, in the form of slow adjuncts to the schizophrenic speed of thought and architecture. The opposite is happening in this lagoon territory: an area possessing those qualities so keenly desired today is preserved, and high-speed knowledge, information and experimentation are added as if by means of innumerable acupuncture injections. The agricultural and rural environment is used as the basis for innovative operations that create new models in food production and distribution, hospitality, education, research, art, the relationship with landscape, and in social relations and production. This injection of knowledge and innovation is necessary to guarantee the continuing existence of the rural dimension, and to reinvent a model for the future. This will have to be a model that enables the new generation to live from agriculture, ensuring that the island is not destined to succumb to speculative building. The market is always hungry for areas that can be transformed into "private villas with garden and swimming pool." More in general, today just as vesterday, the reinterpretation of Venetian territory can become a model that provides guidelines for the sustainable development of all plots of land subject to high market demand, all over the world. This economic, social and ethical transformation is catalysed by a number of factors: social production, the use of shared knowledge and resources, organization growing from the roots, and creative community contributions.

Transition town? No, simply "Territory of Desire".



Figure 1 Sant'Erasmo aerial view

# 10 points for the Manifesto of Desirable Land

1. Protect the lagoon's agricultural and cultural heritage;

2. Encourage the transition to the new generation in agricultural professions by stimulating added value in local products, so that viable income can be generated;

3. Promote lifestyles that relaunch agriculture, by enhancing the skills of the new generation in areas of creative and intangible services;

4. Implement agricultural land in the lagoon area;

5. Create new opportunities for the movement of goods and people amongst the islands in the lagoon;

6. Promote the principles of a short distribution chain and product quality for consumers;

7. Improve the quality of life for the inhabitants of the lagoon area;

8. Promote the use of renewable energy sources;

9. Play an active part in the maintenance of the lagoon area;

10. Create an economic, social and physical model that is positive, alternative, and capable of encouraging development and improvement for the inhabitants of islands in the lagoon.



Figure 2 Sant'Erasmo



Figure 3 Sant'Erasmo

# A bigger frame in food chain production, looking at Expo Milan 2015

In the concept plan for Expo 2015 ( by Jacques Herzog, Richard Burdett; Stefano Boeri, William McDonough), an area north-west of Milan that is currently in a state of abandonment will be turned into a Planetary Kitchen Garden. Unlike previous Expos, each country invited to Expo 2015 will not have a pavilion, but rather an area of land for cultivation, on which it can demonstrate its biodiversity, its technology, and its solutions to important food production problems. On the eastern part of the site, there will be a series of large glasshouses for the biomes and agriculture from the most extreme areas of the planet. After Expo 2015, Milan will have a large area for research, production and leisure in the areas of agriculture, seed products and food. It will be the first agriculture and foods science park in the world. In Venice, this sort of territory already exists. Sant'Erasmo has a high degree of biodiversity and remarkable landscape features; its agricultural land is distributed and sized like the plots at the Expo. Just as in Milan, they are adjacent to areas of water, or are bordered by natural "boulevards" on the island. It possesses a series of distinctive cultivation techniques, and short distribution channels that are actually "visible" for several of their stages. So the world will be demonstrating its diverse forms of food culture, while in Venice, there is already a location with similar characteristics, where it will be possible to illustrate the wealth of local and national techniques of producing, harvesting, processing and preparing food deriving from the land.



Figure 4 Milano Expo 2015 conceptplan

# Agri - Culture vocation, preservation and innovation

To preserve the island's agricultural vocation, the factors that should be enhanced are the quality of production, the direct relationship with consumers (who can utilize the products and the locations where food is produced), the short distribution channels, the relations with and within the food production community, mixed farming, the community's social and cultural identity, and the idea that the environment and the local economy can be improved if one is careful about what one eats. Sant'Erasmo is in a privileged position because it potentially already has many of the requisites characteristics of the agriculture of the future, and it is capable of generating a new economic resource.

#### Proximity agriculture

This term describes relatively small urban areas dedicated to multi-functional agricultural activities, in relation principally to the city in question as regards economics and production. It performed not just for food production, but also providing a series of material and intangible services and benefits as a result of its location within the urban fabric, such as care for the landscape, environmental and nutritional education, and increasing the population's awareness of the protection of resources, permits an increase in income for farming businesses, while local purchasers save money, and the sector as a whole is improved. On Sant'Erasmo, the activation of the benefits linked to the official recognition of proximity agriculture would make the profession more attractive to young people and the population overall, encouraging the repopulation of the island.



Figure 5 Agri -culture

#### Short distribution channels

In a short distribution channel, there are a limited number of intermediaries between producer and consumer, approaching the shortest possible chain in which there is direct contact between the two. In Venice, a short-distribution-channel market could be created by reinforcing links with Sant'Erasmo, the coastal agricultural areas, and the Rialto food and vegetable market, as well as with the quality restaurants in the area. Young farmers on Sant'Erasmo have already conducted experiments on the organization and short-channel distribution of agricultural products.

#### Polyculture

Sant'Erasmo is distinctive for its fragmented land and its low degree of mechanization. These factors, along with its vocation as an area for the production of food and vegetables, make it a polycultural district that should be preserved and enhanced, for example by returning to the traditional system of using irrigation channels as small fishing reservoirs, and the use of biomass to generate compost for fertilizing agricultural land. There are some valuable crops, such as purple artichokes, protected by the Slow Food network, but these should not become a monoculture on the island. On the contrary, the presence of these high-added value crops should be developed in order to enhance all the fruit and vegetable crops on the island.

#### Permaculture

This is a holistic approach to agriculture, considering man's activities and needs, and trying to reconcile them with those of nature, by constructing a balance between the natural environment and the man-made environment. In this approach, the territory is utilized in a method that imitates the links and relations typical of nature, in order to generate an abundance of food, fibre and energy for local needs.

The initial challenge, making Sant'Erasmo a territory hallmarked by permaculture, becomes a model for the development of a permacultural future for Venice and the lagoon system.



#### Figure 6 Map agri-culture

# Agricultural incubator

The maintenance of agricultural land and the future of the area, which risks deterioration, require widespread cooperation. On Sant'Erasmo, most of the land belongs to old-aged, traditional farmers who are working in situations of considerable difficulty. The agricultural incubator is a method of enabling the population at large to help with the maintenance of this land, and it will help promote the transition of responsibility to the new generation. The project for a public agency that could activate an agricultural incubator was designed with the objective of bringing three different categories of people into contact: owners of land on Sant'Erasmo, active citizens (people belonging to a Consortium of associations, organizations and individuals), and the public administration. The prototype model is analogous to that of many public/private agencies in European cities, which have placed hundreds of empty houses back onto the market by bringing the non-conventional demand for accommodation into contact with the houses available. On Sant'Erasmo, this sort of agency would provide a guarantee for unconventional agreements between landowners, who are increasingly old-aged and less able to cultivate their land, and the active parts of the population who would like to introduce innovation into the island's agriculture but do not possess the land that they would need to do so. The extra value and income generated by Expo 2015 will make agriculture on the island of Sant'Erasmo an attractive option. Over time it will create a future vision for the island, encouraging innovation and the transition of management to the new generation.

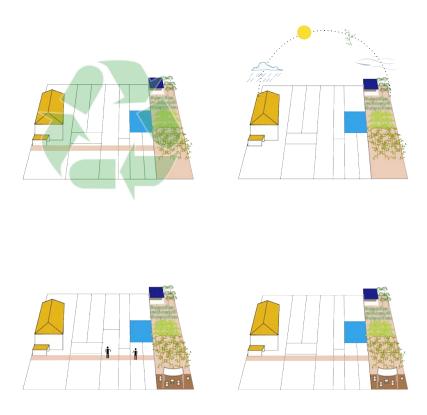


Figure 7 Agriculture incubator diagram

### Aqua - Culture

Land and water are the primary materials comprising the lagoon landscape, and man has constantly modified them over the course of the centuries. The population of the lagoon area benefits from a special relationship between landscape and water, which shares the links with water typical of all coastal areas, but which here takes on unique forms due to a millennial culture of transformation, exploration, maintenance and cohabitation with the lagoon. If we try to go beyond an anthropocentric vision, water can be considered as a complex ecosystem generated to a large degree by human activity, and which consists of hundreds of plant and animal species undergoing constant evolution. Some parts of the lagoon have been used for centuries to produce fish, in a way that can be compared to land-based farms. The results are sometimes beneficial and sometimes harmful to the environment. On the island of Sant'Erasmo, aqua-culture is unique for the way in which it is closely integrated into the landscape, adopting functions that transcend monocultural exploitation. The canals in which fish were once farmed are the same as those used to drain the fields, and to defend the land from encroaching seawater at exceptionally high tides. The resulting areas of water therefore have a variety of functions, and they represent a new possibility of development that could be used to correct the many errors of the past, and to test an integrated form of aquaculture. As well as for fish production, the canals network can be used as natural water purification reservoirs and areas for gathering algae to be used as biomass or as a characteristic biological material. A classic example is the valuable type of paper made using algae from the Venetian lagoon. These waterways can also be used for environmental education and scientific experimentation.

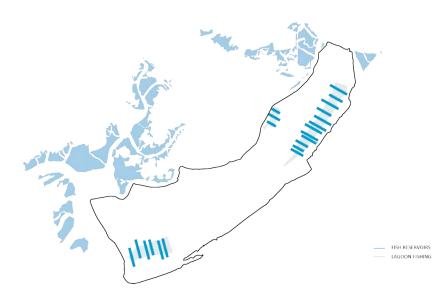


Figure 8 Map Aqua-culture

### Acupuncture of innovation

With reference to the 2015 event, resources can be allocated to the formation of points of excellence as regards knowledge and local experimentation, such as agricultural and cultural workshops. These are platforms in which university research, business interests and the local community can identify common ground, not only in agriculture, but also as regards landscape, biology and marine biology.

While the resources already present on the island (its agricultural vocation, landscape, the lagoon setting, its relationship with the sea) will be maintained and enhanced, additional operations performed at a precise geographical location, utilizing advanced innovation and research, can help Sant'Erasmo become an "island of experimentation." The overall structure will be concentrated into specific locations, with visions and operations possessing considerable experimental potential, linked to land and water. Not a Silicon Valley, but rather a "Soil Valley" in north-eastern Italy, capable of attracting international interest and resources by virtue of its agricultural and landscape assets and its unique ability to produce innovation while preserving the existing heritage. It will therefore become a model for a new lifestyle, located not at the edges of cities, but as a new centre of agriculture and identity. The equivalent of the national pavilions at Expo Milano would take the form of a series of specific locations at which operations are performed for experimentation and education on the relationship between man, culture, food production and landscape.



Figure 9 Acupunture of innovation

#### Local network of agriculture and foods laboratories

These laboratories are for the study of local organizational models regarding agriculture and foods, and the analysis of seed products, food products and water. A widespread network of laboratories can provide consultancy for innovative farms, and it could provide a quality control service for use by institutions and private organizations. With coordination by university institutions, they could develop research projects on local topics, and provide scientific and technological support for farms and the managers of urban vegetable production units. At the same time they can offer short-term study opportunities for students and professionals working on the agriculture of the future. On the island of Sant'Erasmo, the universities of Padua, Venice and Verona could find space and opportunities for experimentation and research, creating connections with the local business community and activating a mutually beneficial process of interchange in the field of knowledge and development.

### Slow mobility

The island's characteristics in terms of mobility invite its "slow development," encouraging features that are already present such as bike sharing and the use of small three-wheeled utility vehicles known as ape cars, not just for private use but also public services. Internal mobility can be improved by means of an electric transport service that would provide a quick connection from one end of the island to the other, for use by tourists and residents. This public transport service would remove pressure from the vaporetto ferry boat service that currently has to provide service for all parts of the island. An interchange node could be created near Torre Massimiliana, which would enable more regular service, while also protecting the saltwater marshes that risk being damaged by the intense ferry traffic. When the project becomes operative, the number of residents on the island will increase, and visitor numbers will also increase. This means that in any case, an increase in ferry frequency will be needed, in order to improve links with surrounding locations such as Venice, Murano, Mazzorbo and Treporti.

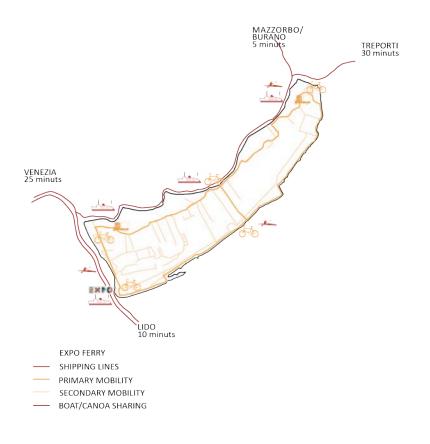


Figure 10 Map Slow mobility

# Communities, entrepreneurs, networks

The creation of internal and external networks, both tangible and intangible, will be indispensable in fueling the transformation of Sant'Erasmo. For example, the organization and introduction of methods of sharing knowledge and resources amongst the people living on the island, by means of a net system, will help implement new services and business potential (for example, bike sharing services, ape-car sharing, food communities, summer micro-kindergartens for use by families from Venice, and so forth). These are generally simple and relatively unstructured systems that often compensate for gaps in institutional services, but very often they are even more beneficial for the creation not only of new social values, but also because they encourage small-scale enterprise that is capable of taking a proactive approach in providing a response to demand. These models also offer considerable opportunities from the point of view of sustainable development in terms of environment and energy, because they encourage a lower use of resources, optimizing those already present in situ.

Technological investments would be ideal to help this development, and more specifically to improve the circulation of information and communications both within the island and outside, with the rest of Italy and internationally. A broadband service is in fact an important tool for communications and marketing. The small community of Sant'Erasmo already seems to be a structure capable of activating positive and creative community processes, as shown by the operation "Flavours of Sant'Erasmo." Intangible networks can actually catalyze the creation of physical networks, such as the stable link with the Rialto market, which provides an actual location in which to display the qualities of the place of production, involving the entire product chain in an intelligent network that uses new technology in a positive way. This will encourage the transfer of responsibilities to the new generations, because the latter are accustomed to using this type of network.

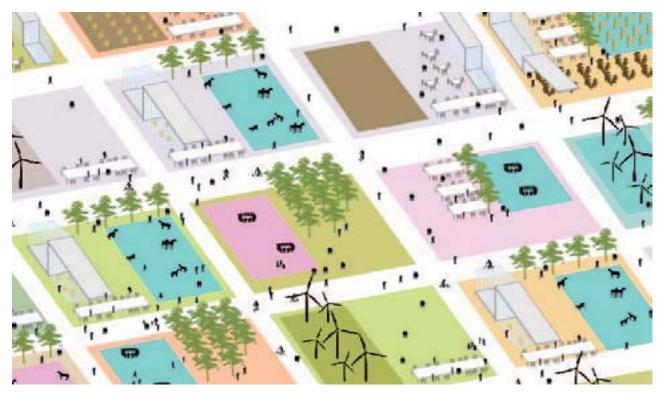


Figure 11 Communities, entrepreneurs, networks

# Hospitality and Cultural development

The island's landscape and architectural resources, along with its intangible assets of rural and lagoon knowledge, are factors that could provide extra incentives for the development of new, small, local business enterprises, which would require no extra building volumes. The locations forming the points of focus could be the two forts, one at each end of the island. The activities that could be offered by the inhabitants of the island, in the outlook of the new development of local agriculture, could include the increased production of traditional local products, work experience in agriculture and fish-farming, any activities that require peace and silence, culinary courses, and forms of small-scale production. Private homes on the island can be given a new lease of life and new opportunities, because portions of their volumes could be dedicated to local hospitality, providing accommodation for small numbers of people interested in experiencing this environment for short – but not excessively short – periods of time. In fact, guests could use the host families' equipment and resources (the general idea is that of local hospitality modes, such as couchsurfing, Air bnb; bed and breakfast based on the rural tourism concept, and so forth). These are temporary, reversible solutions that would encourage social interaction and mutual understanding, while not creating damage to the local environment because they are low-impact systems. The variety offered by the landscape is another important opportunity for attracting both the general public and more specialist visitors. The activation of paths in the country landscape would make it possible to visit these unique rural and natural habitats, enabling visitors to come into contact with farms and their products. The process would be implemented using natural infrastructure such as tracks and cycles paths, recreational facilities such as the restored beach, and cultural assets such as the two restored forts. The island is ideal for encouraging agricultural tourism, for which the area and the local population's skill in business enterprise provide great opportunities for exploiting the qualities of the local environment, creating a very different type of tourism when compared to the quick visits that are characteristic of mass tourism in Venice and that are causing increasing damage to the city.

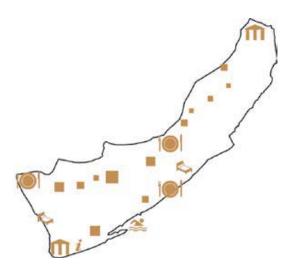


Figure 12 Map Hospitality and Culture development

"Desirable territories" are locations that have many of the qualities that are desirable in the contemporary city. They represent a real possibility of creating new lifestyles. Today we are witnessing the rediscovery of agriculture in towns and cities, as demonstrated by the proliferation of agricultural areas close to the structure of the city, including allotments used to grow vegetable products. It is important not to lose the unique characteristics of the lagoon's rural culture, giving the inhabitants the tools necessary for perpetuating knowledge and skills that would otherwise be lost. This responsibility cannot be delegated exclusively to the few traditional farmers remaining: it must be performed by the whole population.