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AFTERWORD

WHEN INFRA-ENERGY AND ENERGY PARK MEASURE THE SUSTAINABILITY OF MEDITERRANEAN SPACES.

by **Consuelo Nava**

university researcher, expert in sustainable design, is a professor of Sustainable Design at the Faculty of Architecture of Reggio Calabria and Environmental Design at the Faculty of Architecture of the Giulia Valle in Rome; was part of the evaluation commission of the doctoral thesis of Alberto Ulisse.

The written work of A. Ulisse and the traces of his research mark essential reading material in the contemporary debate concerning “forms of the project” in an interSCALAR sense able to entrust the management of between city networks/Energy zones and building/cluster Energy_industry Energy_green house energy, a report of relational networking with the absolute and indispensable role of spatial configurations and networks recognized by the names Infra - Energy and Energy Park. The speculative nature of the research that actually tries to define the new energy tools for the Mediterranean city, with the definition of e-tools, takes in trial any assumptions made to project the weight of reading about a new morphogenesis of these urban and suburban areas, which found their energy capacity, through the characteristics of places and the transformative potential of the district. With the contribution of this text in postscript, the lesson of A.Ulisse (AU), we wish to verify its exportability through some examples of teaching and applied research projects which will demonstrate in particular where the Infra-Energy and Energy-Park become privileged places of “exchange” and “conversion” can play a role in changing contexts, sustainable scenarios for the Mediterranean area. Referring to the project culture that sees such places as Junkspace (R. Koolhaas, 2006) or residual territories (G. Clément, 2005) as potential resources for ecological diversity, identifying the levels of social and environmental sustainability, with the aim of qualifying the nature of urban environments, their value in use and report their ability to reconstruct the landscape units and to solve soil permeability and morphology of linear tracks of land or space already dismantled, even before housing. The infra-energy, areas identified as areas of margin, often inactive and unused (AU), can play a role in the Mediterranean context of mitigation and filter core structures related to the environment and climate conditions.

1. Consider the green corridors and connections to the slow mobility (walking and cycling) which run along the infrastructure and mitigate the impacts, which improve comfort by lowering the noise and environmental noise pollution of dust and hydrocarbons, which control the sunny climate and resolve the relationship between permeable and impermeable surfaces, designing and flooring systems for the disposal of stormwater on a draft of the gradients which manages the run-off widespread accessibility at the same time. Such systems reclassified border territories and brought them back to the edge of usability, the sociality of the spaces between plant species and location of filter and natural barriers. The project is characterized as being particularly sensitive and that are located in areas of high natural character, eg. coastal zones (Figure 1 / Figure 2), both involving urban areas that face the sea and organize their mobility within the fabric of settlements (fig.3/fig.4).



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2. This refers to the reconnection of circuits in the urban areas of strategic polarity, which may be squares, streets and open spaces of buildings with high cultural value. These spaces “in.between” who bear the environmental burden of the use of their centrality, are also spaces that change their destination and their urban configuration, the nodes in which they relate. The level of social sustainability measures the environmental capacity of these new urban places “that serve to characterize the connection, but also stopping and sorting. The unifying character of various trims can increase the levels of maintenance of these areas and the organization of services, structures and substructures of the networks. Ecologically they often play the role of land clearing and restoration of environmental resources to be preserved (plants, water systems) in the urban consolidation. In their requalification project the objective is to define another level of use different from the one organized by providing areas for more frequent interaction, use and management savings. (Fig. 5 / fig.6)

The Energy Parks, which identify areas to be reclaimed as natural areas, or areas of natural/artificial high density cities, or areas to be retained through the reuse of abandoned buildings and their relocation (AU), play a role in restoring the ecological equilibrium in and around urban settings, re-establishing the correct relationship between environmental systems and artificial systems, including ability to conserve natural resources and productive capacity of these.

3. The river courses, especially those of torrential character, typical of some areas of the Mediterranean areas, organize their course in urban and suburban sections connoting different units for each section and height of river bed. Along the course through natural still areas, where one can maintain their water system to serve the agricultural land and crops in typical weather conditions restoring the landscape and biodiversity typical of the foothills and valleys of the mild climate, where the flood areas ensure the territory and controlling the steepness of the materials through the artifacts and structures of fluvial terraces. These areas play their role for the stability of the slopes and the hydrogeological condition of normality of the permeability of water, washing out the higher ground. The project is interested in the restoration of natural and artificial systems, restoring areas of linear river park at auctions and suburban areas of the park with strong environmental concerns in urban areas, where the intended services to provide - recovering permeable and usable territory - can seek energy production, locating services and networks at the point of better insulation and wind (solar, wind, geothermal) or by providing storage areas and processing of various kinds of waste from the urban and suburban metabolism (biomass). It is these sparsely built energy parks that restore the relationship between urban systems and dense settlements scattered between areas of private and public spaces. Their balance is guaranteed by the maintenance of natural systems and compatible use of the context units (Fig. 7 / fig.8).



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4. In remote areas, where the monofunctional use has seriously degraded the quality of the urban landscape, often undermining the functioning of any system-wide environmental networks and filter areas, recovery areas and the margin of their new functions in the park, to equipped areas, it becomes a necessary condition for restoring the relationship between open/protected space and confined/closed spaces conditions of social exclusion, privacy and urban insecurity. In such contexts the project of the terrain that characterizes the transformation in every sphere, is a condition of success if the building density is answered by defeat the island heat effect and reducing the albedo, by the resolution of permeable surfaces, (Green and gravel) and semi-permeable surfaces, but also by the different morphology of the plans and their status as productivity (green filter, green productive - vegetable gardens): in these conditions, the areas of controlled microclimate of open spaces to achieve a quality of living in common areas directly related to private buildings and structures in nature and receptive audience, through the correct sequence of shaded areas and areas exposed (bioclimatic outdoor spaces). (Fig. 9)

5. In abandoned areas, such as former industrial areas, the conditions of impact and damage affecting especially the quantitative aspects related materials are no longer viable in efficient energy cycles, spaces are no longer functional, from disrupted networks, to the no longer used structures: a existing environmental burden if it were to be decommissioned involves an important energy cycle for disposal. The reuse and redevelopment projects, create real energy parks, starting from the reuse of existing buildings, renovation of their construction quality and materials, the restoration of some network systems useful for new operations, capable of welcoming as integrated those levels of organization reported to apply the best use of resources. To allow the redeveloped area is not a functioning urban enclave, the more you work with measures for ecological restoration of natural systems to improve air quality and perception of the urban context of reference, the better the condition of urbanization the production site. It is to build and manage environmentally protected areas for consolidated urban areas (fig.10 / fig.11), but also for scenarios that can convert a sensitive area, characterized by the presence of protected nature sites, from single industrial products that are however part of a network, with a strong presence of a natural system and a climate favorable to ensure the best condition of adaptivity of any biological and plant community. In both cases, the maximum sustainable management shall be ensured by economic and ecological capacity of the site of latching and to produce extra energy, able to connect to "service efficiency" and "effective operation" with the production area and residential business or intended services in a continuous and sustainable urban metabolism.

Sources of text

Project images *

Infra Energy

fig.1/ fig.2 __ project for the metropolitan city, Ionic coastal Reggio Calabria (A.Manti, S.Mercuri, D.Pata, M.R.Schiavello)

fig.3/ fig.4 __ project for the metropolitan city, outskirts south Reggio Calabria (G.Sanzo, G.Sorbara)

fig.5/ fig.6 __ environmental project in high density urban areas, S. Giovanni port Rome (C. Borlan Ronchel, A. Reina Lopez, L.E.Salazar Bruque)

Energy Park

fig.7 __ project for the metropolitan city, renovation of fiumara park S. Agata – Reggio Calabria (G.Bassetta, P.Rombolà)

fig.8 __ project for the metropolitan city, renovation of fiumara park Valanidi – Reggio Calabria (A.Barresi, M.Scalzo, F.Silipo, F.Zupi)

fig.9 __ project for the metropolitan city, renovation north periphery Arghillà Quarter – Reggio Calabria (F.Spanò, V.Polimeni)

fig.10 __ environmental project in disused industrial areas, Tiberino zone / Aureliane wall in Rome (G.Poggi Madarena)

fig.11 __ project for the metropolitan city, energy park in protected area of Saline J. – Reggio Calabria (A.Calabrò, C.Rodà)

(*) Environmental projects in disused industrial areas and in housing areas of high density, faculty of Architecture of Giulia valley, students of Environmental Design course 2009/2010, Rome
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AU

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