

**“KNOWLEDGE PROCESSES BUILT-UP ENVIRONMENT RECOVERY AND HERITAGE ENHANCEMENT”
TRADITION INNOVATION INTERDISCIPLINARITY – RESEARCH SCENARIOS**

Rosa Maria Vitrano - University of Palermo - Doctorate in “Recovery and exploitation of ancient sites”

*Tradition as recognition, witness and resource.
Innovation as a complex act of interpretation and proposal.
Interdisciplinarity as scientific expertise for the sustainable design*

To exchange views about the forms, actions and instruments of “doing architecture”, and to analyse in depth the needs for “recognition”¹, renewal and sustainable development, means to grasp the intrinsic relationship (gradually established in the course of time) between conservation – cultural heritage enhancement, maintenance, protection and safety – and the innovative aspects deriving from the dynamics of change.

Such issues contribute to the delineation of the field of the research experience (carried out at the Doctorate Seat in Palermo, in preparation for the OSDOTTA_09/Reggio Calabria Seminar September meeting), and help to produce the terms for the definition of its subject matter *KNOWLEDGE PROCESSES, BUILT-UP ENVIRONMENT RECOVERY AND HERITAGE ENHANCEMENT*, with the aim of experimenting with methods, processes and techniques useful for the enhancement of the cultural and environmental heritage, and for the sustainable development of local resources. (Table1)

The study of “built-up heritage” (both of ancient construction and of recent creation) is a vast and complex research field which, besides being part of the cultural thread of local economies, at the same time opens out onto international contexts, thanks to the extensive co-operation and partnership agreements signed by the Palermo Doctorate with foreign bodies and institutions on multidisciplinary research platforms.

DOCTORATE IN “RECOVERY AND EXPLOITATION OF ANCIENT SITES” - UNIVERSITY OF PALERMO
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TABLE: TECHNIQUES _ MORPHOLOGY _ PROJECT

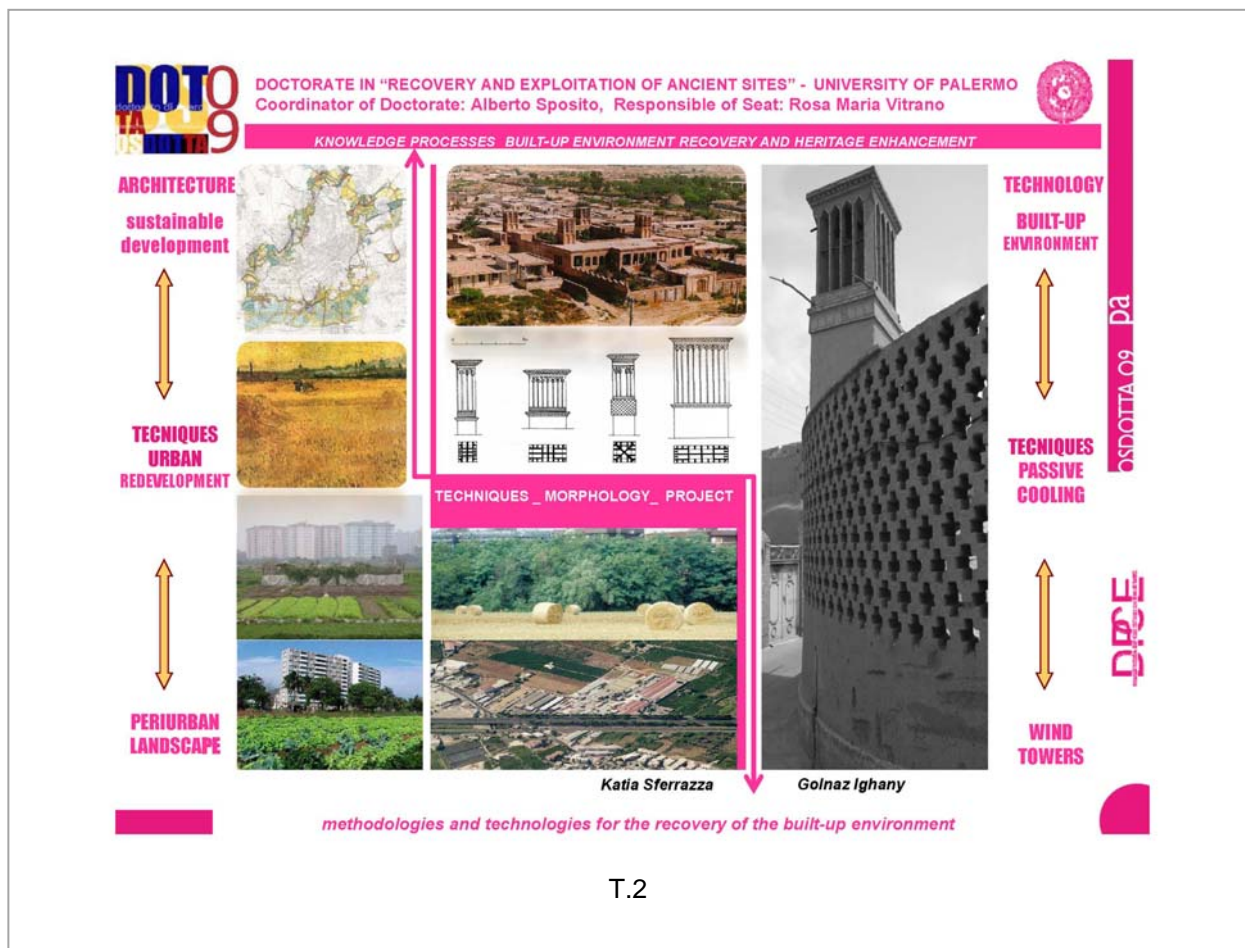
KNOWLEDGE PROCESSES BUILT-UP ENVIRONMENT RECOVERY AND HERITAGE ENHANCEMENT

Legenda

- 1 Capitoli
- 2 Paragrafi
- 3 Sotto-paragrafi
- 4 Capitoli della prima parte della tesi
- 5 Capitoli della seconda parte della tesi
- 6 Collegamenti di relazioni
- 7 Nodi di conoscenza

THEMATIC AREA
KNOWLEDGE PROCESSES
BUILT-UP ENVIRONMENT
RECOVERY AND HERITAGE
ENHANCEMENT

SUB-THEMATIC	THESES	PH
Built-up environment knowledge processes and recovery systems	<i>Ex-Montedison Plant in Porto Empedocle: Redevelopment, Recovery and Sustainable Reuse</i>	Carmelo Cipriano 21 st Cycle
	<i>Urban Landscapes– Strategies for the Recovery and Redevelopment of Periurban Landscape</i>	Katia Sferazza 22 nd Cycle
	<i>Wind Towers. Passive Cooling [Refreshment] from Tradition to Innovation</i>	Golnaz Ighany 22 nd Cycle
Archaeological heritage knowledge processes, recovery and enhance	<i>Hidden City – Archaeology and Design in Europe 1989-2009</i>	Alessandro Tricoli 21 st Cycle
	<i>Light and Archaeology. Ruins [History] Communicated through Illuminating Engineering</i>	Santina Di Salvo 22 nd Cycle
	<i>From the Pausania Grand Tour to Modern Museography. Museums in the Vicinity of Archaeological Areas in Greece</i>	Maria Desirée Vacirca 22 nd Cycle



The contribution of multidisciplinary, as an active and interactive praxis of design, allows to analyse the built-up environment – manifold and heterogeneous in itself – according to different research angles (structural/building/transformation processes – landscape creativity and weaknesses) and to study the heritage, in a broader perspective, without separating its cultural, environmental, historical, architectural and archaeological aspects.

On such bases, in the course of the Seat's research experience, the following questions have been raised: what "value relations" does the "technological project" (process/project/product) share with tradition and what relations is it required to establish/measure with new domains and languages? How can the "technological project" (process/project/product) be made to interact competitively with the prospects of new development?

On the whole, the tradition/innovation interaction has been regarded as one to be analysed both as a complex propositive action aimed at the enhancement of what already exists [the existent], and as an interpretative opportunity for the theoretical and applicative framework of the contemporary project.

As far as the development goals are concerned, it has been noted that competitiveness (considered as an "interacting force" for transferability) is inherent to the project and its evaluation and management methods. Priority objectives include:

- To stimulate positive action in order to enhance the cultural heritage and the environment.
- To plan transferability indices: local action for redevelopment and enhancement.

Having thus defined the research field, further in depth study has included the following sub-thematic areas: built-up environment knowledge processes and recovery systems - archaeological heritage knowledge processes, recovery and enhancement¹.

¹ Theses in progress, relating to the former sub-thematic area: Urban Landscapes– Strategies for the Recovery and Redevelopment of Periurban Landscape (22nd Cycle, arch. K. Sferrazza); Wind Towers. Passive Cooling [Refreshment] from Tradition to Innovation (22nd Cycle; arch. G. Ighany); An Abandoned Industrial Area - the Ex-Montedison Plant in Porto Empedocle: Redevelopment, Recovery and Sustainable Reuse (21st Cycle, arch. C. Cipriano). Theses in progress, relating to the latter sub-thematic area: Light and Archaeology. Ruins [History] Communicated through Illuminating Engineering (22nd Cycle, arch. S. Di



As for the theses of research related to the former sub-thematic area, the structure of the theoretical apparatus has been achieved through the identification of works, projects, experiences and theories focusing on the topics of redevelopment, eco-oriented architecture and the use of specific technological systems relating to different aspects:

- typological/dimensional analysis; matter analysis – building systems and processes; dwelling comfort and energy efficiency. (Table 2)

Attention has therefore been directed to sustainable regeneration processes: such processes are required to integrate techniques, methods, components and materials adequate to the life cycle of buildings and to their production processes (*life cycle/building design/project management*)².

As for the theses of research connected with the latter sub-thematic area, the structure of the theoretical apparatus has been achieved through the identification of works, projects, experiences and theories focusing on the preservation and fruition [enjoyment] of archaeological assets. In particular, the research has aimed at proposing appropriate technological solutions for the conservation and enhancement of archaeological indoor/outdoor areas. Technological knowledge has been used as an "interpretative agent" of material and immaterial processes, for the study and enhancement of archaeological sites. The technological aspects of the project have been examined against the background of the actual needs for conservation, in order to prevent new structures from being too invasive and to allow "full" enjoyment of the goods being dealt with. (Table 3)

Salvo); From the Pausania Grand Tour to Modern Museography. Museums in the Vicinity of Archaeological Areas in Greece (22nd Cycle, arch. M.D. Vacirca); The Hidden City – Archaeology and Design in Europe 1989-2009 (21st Cycle, arch. A. Tricoli, expounded at the Theses Monitoring Table and herein mentioned for completeness' sake.

² *Project management* is: the process of planning, designing, putting into service, constructing and maintaining buildings as well as [in addition to] their exercise [use] and dismantlement or deactivation, in order to guarantee quality, times and costs. - *Building Design*: life cycle building is the design of building systems, components, materials, information systems and practices to create sustainable buildings.



On the whole, both research groups have aimed on the one hand at the protection of cultural and environmental identities, on the other hand at improvement and development, while treating with respect what preexisted. As for research methodology (which has been both analytical/interpretative and project-based/experimental), it has turned out to be quality and project control oriented, in a «constant quest for a living spatiality supported by matter consistency» (E. Vittoria)³.

In terms of *research transferability*, the analyses carried out have therefore intended to both work out projects, methods and techniques to be integrated into the thread of the context strategic economies, and to offer their results and the acquired competences and skills to the various operating sectors (research bodies, conservation institutions, universities, local authorities, companies etc.), through suitable communication and diffusion processes. (Table 4)

In conclusion, the scientific contribution of the Palermo Doctorate, on the subject of "Architectural Production between Techniques and Design", has consisted in the production of Theses, diverse in contents and purposes but at the same time comparable in their research methodology which has involved: careful case analysis, the study of systems and instruments for conservation and/or recovery, heritage enhancement, integrated technological experimentation and the use of sustainable technologies.

In particular, within the flexibility of the above outlined research scenarios, the directions and applications of the analyses have been related to: *tradition*, as the set of material and immaterial memories; *innovation*, as the experimentation of new criteria for the renewal of a certain building procedure and/or of instruments for the recovery of the extant heritage; *multidisciplinarity*, as a joint approach between different disciplines.

The idea of *Technology of Architecture* as a tool to both reveal material, cultural and environmental roots and to explore future scenarios, through the interaction between tradition, innovation and interdisciplinarity, has thus been reinforced.

³ (...) inhabited space involves very many elements of physical and intellectual nature on which the inventive potential of building is based. So, I believe it proper to take again into account that "art de bâtir", building art, whose range of action extends to the whole environmental domain, to be transformed into new environment, by means of all the instruments of modern culture: from the literary and philosophical to the empirical and pragmatic ones; symbols of the disquieting and instable quest for a living spatiality supported by matter consistency (...).* Eduardo Vittoria, SITdA National Conference, Naples 7-8 March 2008.