

Innovation in research

The challenge and activities in progress

L'innovazione nella ricerca

La sfida e l'attività in corso

Materiali del **IV** Seminario

OSDOTTA

edited by

Orio De Paoli and Elena Montacchini

dottorato di ricerca

tecnologie dell'architettura



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between universities, research centres, public bodies and SMEs,
-Valorisation of rural landscape and heritage, aiming at social and economic growth of areas,
-Direct and indirect support of innovative development policies for rural areas, tourism and industry to create new jobs in economic depressed areas.

Final product

Sustainable governance plan of rural heritage and natural resources

Results: International relationship

-GMV Centre for Environment and Sustainability, NMK Enterprising Research Scholl Natural, Sustainable and Conservation Materials, Chalmers and Goteborg University, Goteborg, Sweden

-Region and Heritage of Halland, Sweden

-University of Vaxjo, Lund and Gotland, Sweden

-University of Madrid

-Heritage of Malta

Beneficiaries

Agriculture associations, public administrations, industries and citizens.

Opportunity

The bio-energy production is the first step of an economic sustainable development and territory valorisation, according to international agreements signed after Kyoto protocol for greenhouse gasses decrease. Bio-energy production can in fact give several advantages in comparison to fossil fuel. The project, with the cooperation between Universities, Research Centres and Public Administrations, tries to help SMEs to access the bio-energy technologies.

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QUALITY CONTROL IN THE MANAGEMENT OF PUBLIC HERITAGE REAL ESTATE PROPERTIES

A methodology for the planning of service for the University of Catania's
portfolio

Introduction

Beginning at the end of the 1990's, the regulations for university autonomy clearly showed the necessity for Italian universities to adopt a managerial policy of the users according to a hierarchization of importance defined by the users themselves. This research project experimented with the application of the Quality Function Deployment method, usually applied in design in order to project a product/service that satisfies the market requirements. The evaluation matrix used in this method, the Relationship Matrix, adapting it to the specific needs of this case, is able to translate the current user needs into specific techniques of maintenance work.

The result of this evaluation is a ranking of the technical characteristics, in terms of efficiency demanded to the elements of the building, based on their priority in relation to the services required. Starting from this ranking, the priority and the frequency of the maintenance operations can be established in the Maintenance Plan, directed towards efficiency and inexpensiveness. The management of heritage real estate properties does not represent the core business of the University: real estate properties are considered to be assets which are instrumental to the carrying out of the university's functions. *The characteristics of these properties, the services that they provide to users, and their state of conservation must satisfy in the best way possible the specific demands of their users.*

Therefore, the main objective in the management of university buildings is to guarantee, through the distribution of services to the buildings and to individuals, a functioning which conforms to the needs determined by the use. The study of the pilot project of the University of Catania is aimed at identifying a model and a method for the management of heritage university real estate properties which, although being limited in number, require high levels of consideration with respect to the Classes of Needs of Use, Safety, Well-Being and Management (UNI 8289).

Methodology

The proposed management model is based on the willingness of the owner Institution to move from a management system that considers maintenance as a sum of corrective interventions, carried out in response to "break-downs incurred", to a system of planned actions, for the large part preventative, aimed at satisfying the needs of users, supporting university activities in the best way possible.

With the goal of verifying the method of assessment of users' needs and of the services guaranteed by the buildings a sample property, the Military Barracks Abela, was selected. This building is one of the sites of the Faculty of Architecture of Syracuse. It accommodates didactic activities (lecture halls and computer labs) as well as research activities (professors' offices).

The proposed method determines and plans the maintenance activities in function with both the services provided by the building, as well as with management requirements and the needs of the users. In order to assess user needs the Table of Expected Quality was formulated, and organized according to three levels of detail: Classes of Need, Classes of Requirement and Requirements. To better assess user needs, the list of needs reproduced in the UNI 8289:1981 standard was enriched with the insertion of needs of a new definition.

Subsequently samples of users were selected to whom this Table of Expected Quality was shown. The users were then asked to evaluate the importance of the list of needs, by indicating the value attributed to each entry, according to a qualitative-type point evaluation scale, from least important to most important. This allowed researchers to organize the needs of the users according to a hierarchization of importance defined by the users themselves.

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ANALYSIS TOOLS FOR SPATIAL CONFIGURATIONS TO SUPPORT THE HEALTHCARE MANAGEMENT AND DESIGN

The study's field concerns the researches directing to develop tools to support high technology and assistance buildings' design in healthcare architecture. Today the connection system among different areas and spaces with specific regard to public flows is one of the main factors concerning hospital good design.

Goals

Contribute to the discussion about contemporary hospital typology and promote considerations about using models in healthcare architecture.

Deliver knowledge about design and management systems of hospital complex under a flows study profile that introduces more attention to the social aspect.

Supply designers, planners and health trusts with tools to be used in the design and monitoring phases to compare different project proposals with regard to impact quality for hospital users.

Implement Monitoring Lab's activity tackling the case study of a Teaching Hospital under transformation characterized by blocks typology.

Methodology

The analysis is led through *Space Syntax's* methodology developed in UK for the study of dynamic and complex systems. It is an evidence-based approach that allows to combine both social and spatial aspect concerning the people movement.

Results

METHODOLOGICAL CONTRIBUTION TO THE SPATIAL MODEL THEORY – Implementation of Space Syntax methodology through a new case study testing.
METHODOLOGICAL CONTRIBUTION TO THE PROJECT – Supply the selected case-study with design evaluation tools

THEORETICAL CONTRIBUTION – Defining quality indicators of the spatial configuration in complex buildings

Technology transfer

The main target of this study will be both the Designer and the Health Trusts. The operators can use research result to manage the transformation and support the design process.

The fourth edition of the Osdotta seminar, was held in Turin from 10-13 September 2008. The Seminar, set up as a moment of reflection about the tendencies that characterize the internal research of the Technology of Architecture, expanded its area of interest, opening up to different and wider horizons for new objectives of research. The program of the three days of meetings developed, as in the preceding editions, with an organic series of thematic tables merging in the final round table that hosted the discussions and the verification of the three external valuers.

La quarta edizione del seminario OSDOTTA, che si è svolta dal 10 al 13 settembre 2008 a Torino, ha avuto come principale tema l'innovazione nella ricerca letta attraverso l'analisi delle metodologie seguite e il confronto con gli interlocutori di riferimento degli esiti della ricerca. Rispetto alle edizioni precedenti, si è visto un importante elemento nuovo nella tavola rotonda finale, rappresentato dall'apertura dei lavori ad autorevoli presenze anche esterne all'area tecnologica: i professori Ezio Andreta, Lorenzo Matteoli e Mario Rasetti. Il programma delle tre giornate di incontro si è sviluppato, come per le precedenti edizioni, attraverso un lavoro di discussione sui temi definiti in incontri preliminari di preparazione del seminario – svolto dai dottorandi con la partecipazione di docenti tutor – con la presentazione finale dei lavori e la discussione nell'ambito della tavola rotonda a cui hanno partecipato i relatori esterni.

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