

POLITECNICO DI TORINO
Repository ISTITUZIONALE

Imagination applied to European norms in “humanized” hospitals. More research, less cost.

Original

Imagination applied to European norms in “humanized” hospitals. More research, less cost / Marotta, Anna. - ELETTRONICO. - 1:(2012), pp. 906-914. (Intervento presentato al convegno Less More Architecture Design Landscape. Le vie dei Mercanti. X Forum Internazionale di Studi tenutosi a Aversa - Capri nel 31 maggio / 1-2 giugno 2012).

Availability:

This version is available at: 11583/2498435 since:

Publisher:

La Scuola di Pitagora

Published

DOI:

Terms of use:

This article is made available under terms and conditions as specified in the corresponding bibliographic description in the repository

Publisher copyright

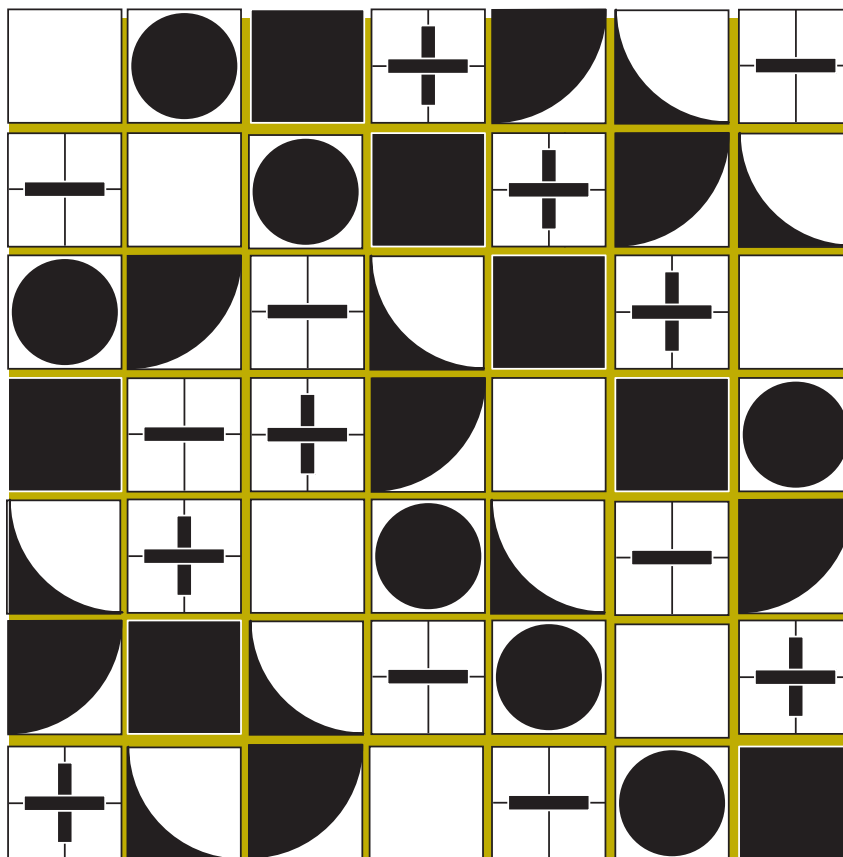
(Article begins on next page)

Fabbrica della Conoscenza

Le Vie dei Mercanti | X Forum Internazionale di Studi

 less
more
architecture
design
landscape

Carmine Gambardella



La scuola di Pitagora editrice

Fabbrica della Conoscenza numero 16
Collana fondata e diretta da Carmine Gambardella

Fabbrica della Conoscenza

Collana fondata e diretta da **Carmine Gambardella**

Scientific Committee:

Federico Casalegno

Professor,
Massachusetts Institute of Technology, Boston, USA.

Massimo Giovannini

Professor and Rector,
University "Mediterranea" of Reggio Calabria, Italy.

Diana M. Greenlee

Professor, University of Monroe Louisiana, USA.

Bernard Haumont

Professor,
Ecole Nationale Supérieure d'Architecture
Paris Val de Seine, France.

James Kushner

Fullbright Visiting Professor
Southwestern Law School, Los Angeles.

Maria Grazia Quieti

Ph.D., Executive Director,
The U.S.- Italy Fulbright Commission.

Elena Shlienкова

Professor and Director of the Design Department,
Togliatti State University, Russia.

Less More Architecture Design Landscape
Le vie dei Mercanti _ X Forum Internazionale di Studi

Carmine GAMBARDELLA



La scuola di Pitagora editrice

Carminé Gambardella (a cura di)
Less More Architecture Design Landscape
Le vie dei Mercanti
X Forum Internazionale di Studi

editing:
Caterina Cristina Fiorentino
Manuela Piscitelli

© copyright 2012 **La scuola di Pitagora editrice**
Piazza Santa Maria degli Angeli, 1
80132 Napoli
Telefono e Fax +39 081 7646814

È assolutamente vietata la riproduzione totale o parziale di questa pubblicazione, così come la sua trasmissione sotto qualsiasi forma e con qualunque mezzo, anche attraverso fotocopie, senza l'autorizzazione scritta dell'editore.

www.scuoladipitagora.it
info@scuoladipitagora.it

ISBN 978-88-6542-129-1

The editorial board and the publisher assume that the authors have obtained permissions for photographs and illustrations where necessary.

published in May 2012

**Less More Architecture Design Landscape
Le vie dei Mercanti
X Forum Internazionale di Studi**

Aversa | Capri
May 31st – June 1st, 2nd, 2012

General Chair:

Carmine Gambardella

ARV_ Architettura Luigi Vanvitelli
Seconda Università degli Studi di Napoli, Aversa, Italia.

International Scientific Committee:

Hassan M.K. Abdel-Salam

Professor,
Faculty of Engineering, Alexandria University, Egypt

Ahmed Abu Al Haija

Professor and Head, Architecture Departement,
Philadelphia University, Jordan

Pilar Garcia Almirall

Professor, UPC Ecole Tecnica Superior d'Arquitectura
Barcelona, Spain

Federico Casalegno

Professor, Massachusetts Institute of Technology,
Boston, USA

Carmine Gambardella

Professor and Dean,
Faculty of Architecture "Luigi Vanvitelli"
Second University of Naples
President BENECON SCarL, Italy

Massimo Giovannini

Professor and Rector,
University "Mediterranea" of Reggio Calabria, Italy

Diana M. Greenlee

Professor, University of Monroe Louisiana, USA

Xavier Greffe

Professor and Director, Centre d'Economie de la Sorbonne
Paris, France

Vincent Guichard

Director, European Centre for Archeology of Bibracte,
France

Bernard Haumont

Professor, Ecole Nationale Supérieure d'Architecture
Paris Val de Seine, France

Mathias Kondolf

Professor and Chair, Landscape Architecture and
Environmental Planning,
University California Berkeley, USA

Maria Dolores Muñoz

UNESCO Chair, EULA Environmental Centre,
University of Concepcion, Chile

Fausto Natali

Director of SITI magazine,
Italian Association of UNESCO World Heritage Cities
and Sites

Jorge Peña Díaz

Professor, Decano de la Facultad de Arquitectura,
Instituto Superior Politécnico José Antonio Echeverría,
Cuba

Giovanni Puglisi

Professor and President,
Italian National Commission for UNESCO

Maria Grazia Queti

Ph.D., Executive Director,
The U.S.- Italy Fulbright Commission

Lucio Alberto Savoia

Ambassador and General Secretary,
Italian National Commission for UNESCO

Elena Shlienikova

Professor and Director, Design Department,
Togliatti State University, Russia

Andrey V. Vasilyev

Professor and Director, Institute of Chemistry
and Environmental Engineering, Togliatti State University,
Russia

Organizing and Scientific Local Committee:

Manuela Piscitelli

Responsible for the organizing process
of the scientific proposal

Alessandra Cirafici

Caterina Cristina Fiorentino

Laura Carlomagno

Daniela Caserta

Graphics and Communication

Luciana Mainolfi

*Administrative responsible
for the management and the financial control*

Alessandro Ciabrone

Relationships with the International Scientific Committee

Giuseppe Klain

Web master

Alessandra Avella,

Fabio Converti,

Maria Cristina Miglionico,

Nicola Pisacane,

Gabriella Abate,

Pasquale Argenziano,

Antonino Calderone,

Gaia Giordano,

Carmen Lagrutta.

Peer review Scholars has been invited to submit researches on theoretical and methodological aspects related to Architecture, Industrial Design and Landscape, and show real applications and experiences carried out on this themes. Based on blind peer review, abstracts has been accepted, conditionally accepted, or rejected. Authors of accepted and conditionally accepted papers has been invited to submit full papers. These has been again peer-reviewed and selected for the oral session and publication, or only for the publication in the conference proceedings.

Conference report 220 abstracts received from:

Algeria, Brazil, Bulgaria, China, Cuba, Denmark, Egypt, Estonia, France, Germany, Greece, Holland, India, Indonesia, Iran, Italy, Japan, Jordan, Kosovo, Malaysia, Malta, Mexico, Netherlands, New Zeland, Poland, Portugal, Puerto Rico, Russia, Saudi Arabia, Spain, Taiwan, Turkey, United Arab Emirates, United Kingdom, USA

More than 350 authors involved.

163 papers published.

Preface

Less, often leads us to reducing considerations and its linguistic application, generally, characterizes a condition of inferiority, decay or deprivation. If we make reference to the scope of our researchers, Architecture, Industrial Design, Landscape and to their deeper meanings, and if we use “less” before them we might involve a critic situation, or homologate a century.

An example is from the historical period we are living in, where Western economies are generically dealing with their budgets by cutting down on expenses rather than investing on their own heritage in order to create richness and workplaces.

On the contrary, our Researchers, Scholars, Businessmen and Civil Services Representatives want to use less to promote a shareable cultural reflection about the reduction of the waste of goods (raw materials, human resources, assets). That's why we are going to arrange the X International Forum “Le Vie dei Mercanti”. In this perspective Less does not mean less investments or cuts, but to identify a hierarchy of relevant sustainable investment funds based on the search for the know-how.

Less in Architecture, Less in Industrial Design, Less in Landscape subsumes more if we are able to supply regenerative models based on integrated system visions.

Consequently, More research in Architecture, More research in Industrial Design, More research in

Landscape if Local Human Resources are set up to create an efficient training education to be involved in the management, protection and regeneration of raw materials and human needs.

All along the past editions of the Forum I have drawn people's attention on our heritage as expression of "actual developing" (modernity).

Modernity, in fact, is an integrating part of history, an inexhaustible mine supplying raw materials to the Factory of Know-how which, as mentioned above, must get the same local physical geometric connotation as the generative humus about the production of fascinating items for Architecture, Industrial production, Landscape.

The projects our Faculty has dealt with, "Pompei Fabbrica della Conoscenza 0079/2013" or "l'Atlante del Cilento", witness as by sizing tangible and intangible heritage we can give rise to a productive factory aiming at art works and competitive Cultivated products and services.

So, scientific contributions aiming at collecting and spreading out the best practices and paradigmatic sustainable projects about system activities and elaborated in an assembly International dimension, are expected. Such contributions must be useful at enhancing an increasing Research process characterized by a constant learning and a great Know-how passion.

Carmine Gambardella

p. 0024 **ID 000**
Less/More Architecture Design Landscape
Carmine GAMBARDELLA

table of Contents _ Architecture

p. 0036 **ID 001**
Less or more.
Evolution of the concept of measurement and its precision.
Manuela PISCITELLI

p. 0046 **ID 003**
A "laboratory" open air in the urban landscape of Palermo.
Francesco DI PAOLA

p. 0053 **ID 004**
First results of an experimental campaign to study the influence
of cement/sand ratio on strength of cement mortar.
Luigi MOLLO

p. 0058 **ID 007**
More or Less.
Imprecise precision in "regulatory designs" by Galeazzo Alessi.
Paolo BELARDI

p. 0067 **ID 010**
The traditional house and rational architecture.
Flamur DOLI, Jetik DOLI

p. 0077 **ID 014**
Promotion of Cultural Heritage.
A case of a little village in Apennines.
Valentina CINIERI

p. 0086 **ID 015**
City and Architecture. Marginality and reappropriation.
The Case of Cavone in Naples.
Riccardo FLORIO

p. 0096 **ID 017**
Heritage architecture: a complex design with natural light.
Mounjia ABDEL TIF , Mejda BENCHAAABANE

p. 0102 **ID 020**
Simple tools for complex geometries.
Genesis and reconstruction of the Philips Pavilion.
Alberto SDEGNO

p. 0112 **ID 023**
Innovative technology and historic heritage: Italy's wealth.
Anna MANDIA

p. 0118 **ID 026**
Non invasive multi-technique analysis of historical
architecture for monitoring and conservation purposes.
Antonio SGAMELLOTTI, Costanza MILIANI,
Brunetto G. BRUNETTI

p. 0124 **ID 033**
Relationship between figurative codes and new
technologies in the 19th Century: knowledge of past
in order to design future strategies.
Laura FARRONI

- p. 0132 **ID 038**
The smart drawing for the knowledge.
The historic town of Ruvo di Puglia.
Cesare VERDOSCIA, Anna Christiana MAIORANO
- p. 0139 **ID 041**
On the connotation of the word “ksour”
in the Mediterranean.
Marinella ARENA
- p. 0147 **ID 042**
Jordan’s Umayyad Qasr: variation of invariant features.
Paola RAFFA
- p. 0157 **ID 043**
New technologies for the restoration of the modern
architecture: the case study of the Church of St. Mary
Immaculate of Longuelo.
Alessio CARDACI, Antonella VERSACI
- p. 0167 **ID 047**
The perfect proportion.
Eugenio MAGNANO DI SAN LIO
- p. 0173 **ID 051**
A forgotten architecture.
Alessandra MANIACI, Alessandra BRANCATELLI
- p. 0177 **ID 056**
Analysis of the masonry coursing pattern in the Casale
Castello: representation of the urban development.
Ingrid TITOMANLIO
- p. 0185 **ID 058**
EcoPerspectives Restoration.
Maria VITIELLO
- p. 0195 **ID 061**
From the complexity of architecture to the knowledge of the
construction of Siracusa.
Giacinto TAIBI, Rita VALENTI, Mariangela LIUZZO
- p. 0205 **ID 062**
A dynamic integral of software to support the ideational
thought.
Giacinto TAIBI, Massimo D’AIELLO, Giuseppa MANISCALCO
- p. 0213 **ID 063**
Energy consumption management
using CAFM application.
**Andrea ACQUAVIVA , Laura BLASO, Daniele DALMASSO
Matteo DEL GIUDICE, Giovanni Vincenzo FRACASTORO
Valerio R. M. LO VERSO, Enrico MACII, Anna OSELLO,
Edoardo PATTI, Anna PELLEGRINO, Paolo PIUMATTI**
- p. 0223 **ID 064**
Roshān vs. Jāli
Faredah Al-MURAHHEM, Vibhari JANI
- p. 0233 **ID 065**
Architecture, Ruins and the Landscape.
Anelinda DI MUZIO

- p. 0242 **ID 067**
Geometric and constructive study of the
Mediterranean Gothic Architecture with virtual models:
Church of San Francisco in Morella.
Manuel CABEZA GONZÁLEZ, Alba SOLER ESTRELA
M^a Jesús MÁÑEZ PITARCH, Beatriz SÁEZ RIQUELME
José T. GARFELLA RUBIO, Ángel M. PITARCH ROIG
- p. 0251 **ID 070**
The Theory of Linear Shadows and Chiaro-scuro.
Antonio MOLLICONE
- p. 0261 **ID 071**
The ruled surfaces in stone architecture.
Federico FALLAVOLLITA, Marta SALVATORE
- p. 0270 **ID 075**
Learning from historic wooden structures: sustainable
performance since 18th Century in the Tropics.
Diana LUNA
- p. 0277 **ID 076**
Huang Cheng Xiang Fu looking for development.
Fangli MA
- p. 0286 **ID 080**
The ancient estate of Conca at the edge of the pontine marshes,
between the views, surveys and historical maps.
Maria MARTONE
- p. 0295 **ID 083**
Digital Representation of Archaeological Sites.
Recent Excavation at Alba Fucens.
Leonardo PARIS, Daniela LIBERATORE, Wissam WAHBEH
- p. 0305 **ID 087**
Generative architecture as a methodology of
optimisation. Spanish examples.
Angélica FERNÁNDEZ, Zaira PEINADO
Luis AGUSTÍN
- p. 0315 **ID 089**
More or Less... "Drawings" (as Heritage preservation).
Pedro António JANEIRO, Ivo COVANEIRO
- p. 0325 **ID 095**
Utopias of the Radical movement as 'processes' for the analysis
and design of public contemporary space.
Mónica VAL, Marina PUYUELO
- p. 0331 **ID 097**
Architectural 3D modeling in historical buildings knowledge
and restoration processes.
Mario CENTOFANTI, Stefano BRUSAPORCI
- p. 0341 **ID 098**
Surveying simple technique.
Antonio ÁLVARO TORDESILLAS
- p. 0346 **ID 099**
Retrofit of Casale Castello through the evaluation of the seismic
safety of its masonry building types
Giuseppe FAELLA, Ingrid TITOMANLIO

- p. 0355 **ID 102**
Less energy, More quality. From Leipzig Charta to EPBD Recast.
Maria Teresa LUCARELLI, Antonella VIOLANO
- p. 0363 **ID 103**
From complexity of architecture to geometrical rule.
The case study of the dome of San Carlino alle
Quattro Fontane in Rome.
Marco CANSIANI, Corrado FALCOLINI,
Giovanna SPADAFORA
- p. 0373 **ID 105**
The interior as an exterior. Precedents for the addition of a new
hall in the old Gymnasium Neapolis, Crete.
Nikolaos SKOUTELIS
- p. 0379 **ID 109**
Palazzo de 'Mayo, multi-purpose and cultural center for the
town of Chieti.
Pasquale TUNZI
- p. 0385 **ID 111**
The system of forts of Rome.
Mariella LA MANTIA, Fabio LANFRANCHI
- p. 0395 **ID 112**
An integrated survey to digitally reconstruct the courtyard of
villa Rufolo in Ravello: from less to more.
Barbara MESSINA, Pierpaolo D'AGOSTINO,
Maria Rosaria CUNDARI
- p. 0405 **ID 113**
Water-ways from Naples to Miseno.
Maria Ines PASCARIELLO, Maria Rosaria TRINCONE
- p. 0412 **ID 114**
Study of efficiency for heritage documentation from image and
range-based information. Case study: San Martín Church,
Segovia.
Juan José FERNÁNDEZ, Jesús SAN JOSÉ, José MARTINEZ
Luis Antonio GARCÍA, David MARCOS, Jorge GARCÍA
- p. 0421 **ID 115**
Temporary architectures.
Daniela DE CRESCENZO
- p. 0430 **ID 118**
The energy-environmental behaviour of the pre-industrial basic
building: learning approach and applications.
Marina D'APRILE, Margaret BICCO
- p. 0440 **ID 119**
Measuring and Representing the city: past and present in
Giovanni Antonio Dosio's map of Rome (1561).
Antonella MARCIANO
- p. 0448 **ID 120**
To know so as to re-cognize and not forget.
Cristiana BEDONI
- p. 0457 **ID 121**
More complexity, less contradictions.
Concept Maps and Contemporaneity.
Maurizio UNALI

- p. 0465 **ID 124**
 Tridimensional modeling as an opportunity to express projects never implemented: the case of Palladio.
Alessia MAIOLATESI
- p. 0472 **ID 125**
 Cooperating in the holy land: The study of the ancient mortars of the old city of Akko (Israel).
Renzo RAVAGNAN, Paolo MARIANI, Manuela SGOBBI
Paolo BENSI
- p. 0483 **ID 126**
 Vicinio of Carbonara in the land of Bari: stratigraphic tests and three-dimensional topology by scanning aimed at the recovery of a nineteenth-century building complex.
Claudia BISCEGLIA, Williams TROIANO, Michele FUNGHI
- p. 0494 **ID 127**
 The "Fontana Rustica" in the gardens of the Quirinale. The three-dimensional laser scanning research for a overall framework non-invasive investigations.
Williams TROIANO
- p. 0503 **ID 129**
 Less white, more white.
Giovanni Maria BAGORDO, Rocco VARIPAPA
- p. 0513 **ID 131**
 The space "behind" geometry: didactics of projective geometry for architecture.
Andrea GIORDANO, Isabella FRISO, Cosimo MONTELEONE
Matteo BALLARIN
- p. 0523 **ID 132**
 The importance of awareness in urban conservation and the role of children, Uskudar in Istanbul as a case study.
Hilay ATALAY, Yasemin TOSUN ANDIÇ
- p. 0531 **ID 134**
 Harmony and Proportion in Traditional Oriental Houses. Where Less is More.
Mario KONG, Maria do Céu RODRIGUES,
Maria João PEREIRA NETO, Pedro JANUÁRIO
- p. 0536 **ID 137**
 The role of drawing in regeneration of the paths of memory. The site of Caponapoli.
Teresa DELLA CORTE
- p. 0546 **ID 139**
 XVI-XVIIth late gothic architecture in Busachi. Survey, three-dimensional modeling, diffusion on the web.
Paola CASU, Claudia PISU
- p. 0556 **ID 140**
 The design of simplicity against the representation of artificiality or kósmos vs cháos.
Paolo GIORDANO
- p. 0570 **ID 147**
 Less versus More: Ethics and Origins of Decoration in Architecture.
Alexandra AI QUINTAS

- p. 0576 **ID 148**
Only a huge stone-wall.
Michele Giovanni CAJA, Maria Pompeiana IAROSI
- p. 0586 **ID 149**
Forms and archetypes of the Nabataean façades at Petra.
Giuseppe MAZZACUVA
- p. 0597 **ID 151**
Anastylosis with Glass Fill.
Charles PHILLIPS, Tim MACFARLANE, John LEE
- p. 0607 **ID 158**
The visual description of the piedmont landscape in the historical iconography: from Theatrum Sabaudiae to landscape painters of eighteenth-nineteenth century.
Maria Paola MARABOTTO
- p. 0614 **ID 162**
Density changes in the redevelopment of the urban spaces.
Carlo Alessandro MANZO
- p. 0622 **ID 164**
In search of a strategy to bring back Iranian windmills to local life cycle.
Saeid GOLESTANI, Somayyeh SHARIFZADEH
- p. 0631 **ID 165**
Waste versus resource: updating a well-known practice.
Rossella FRANCHINO, Caterina FRETTOLOSO
Francesca MUZZILLO, Fosca TORTORELLI
- p. 0638 **ID 166**
Research, experimentation and social dimension of the residential building in Naples between the end of 19th century and the beginning of 20th.
Maria Rosaria DELL'AMICO
- p. 0650 **ID 168**
Less Architecture.
Francesco COSTANZO
- p. 0658 **ID 171**
The sad story of Carditello.
Riccardo SERRAGLIO
- p. 0666 **ID 180**
Recovery collective memory of places.
The Cirio industry in paestum (SA).
Mariarosaria VILLANI
- p. 0672 **ID 186**
Between memory and Mediterranean paradigms: drawing and graphical analysis of eighteenth-century villas in the territory of Bagheria (Palermo).
Gaetano GINEX
- p. 0681 **ID 187**
The contribution of the telematic university in the field of cultural heritage: the museum system between preservation and valorisation.
Tatiana KIROVA, Maria Cristina LAPENNA, Silvana ARICÓ

- p. 0690 **ID 191**
Which drawing to deliver more information?
Giuseppa NOVELLO, Massimiliano LO TURCO
- p. 0700 **ID 202**
Investigating on boundary.
Integration approach to architectural rapid characterization.
Alessandra AVELLA, Pasquale ARGENZIANO
- p. 0710 **ID 206**
Territorial seismic safety evaluation and appropriate survey:
liberty buildings in Naples.
Mariateresa GUADAGNUOLO, Adriana PAOLILLO
- p. 0719 **ID 207**
Cities in translation: the shapes of Earth.
Corrado DI DOMENICO
- p. 0729 **ID 208**
La Resurrezione of Pericle Fazzini in the Aula Paolo VI at the
Vatican. The restoration of contemporary art by sacred
multi-disciplinary dimensions.
**Carmine GAMBARDELLA, Saverio CARILLO, Danila JACAZZI,
Maria Carolina CAMPONE, Pasquale PETILLO,
Riccardo SERRAGLIO, Vincenzo SEPE,
Pasquale ARGENZIANO**
- p. 0759 **ID 211**
The Social Housing for a new ethic of architectural project.
Lorenzo CAPOBIANCO
- p. 0767 **ID 214**
Architecture and Urban Places.
Ottavia GAMBARDELLA
- p. 0773 **ID 215**
Complex of San Lorenzo ad Septimum.
Architectural contribution to sustain energy.
Efisio PITZALIS
- p. 0777 **ID 218**
Segezia.
Gianluca CIOFFI
- p. 0784 **ID 220**
The church in the theatre: the relation with the old age in the
architecture of Benevento in XVIII century.
Patrizia MOSCHESE

table of contents_ Design

- p. 0795 **ID 013**
Internationalization strategies followed by three mexican
pioneer companies, Grupo modelo, Grupo bimbo and Cemex.
José G. VARGAS-HERNÁNDEZ, Mohammad REZA NORUZI
- p. 0805 **ID 018**
The development of the printing division of the Korean
Government (1880-1910): Japan introduced modern printing
technology to Korea.
Hyun-Guk RYU

- p. 0815 **ID 024**
 An Equilibrium Towards LESS-MORE Problems?
 The Innovative Preservation of the Modern and
 Contemporary Cultural Heritage in Architectural Space.
Iwona SZMELTER
- p. 0824 **ID 052**
 The cities and the drawings. Street art projects as shared
 practices for the revitalization of urban areas.
Giovanni CAFFIO
- p. 0832 **ID 057**
 Urban prospection recovery of unused spaces for cultural uses
 and adaptation to existing urban strategies.
José Javier GALLARDO ORTEGA
- p. 0841 **ID 066**
 "Less is More".
 Eternal truth, eternal good and eternal beautiful.
Maria Grazia CIANCI
- p. 0851 **ID 069**
 Algorithmic Art-e- crafts.
 A Process Paradigm of Assembling 'Multiplicities'.
Evangelia PAVLEA
- p. 0861 **ID 073**
 Found objects and awareness in interior spaces.
Mergül SARAF
- p. 0869 **ID 116**
 A creative Lab of Design for outsiders
Marco BORRELLI
- p. 0876 **ID 138**
 Fashion Designers' Insight in the Global Crisis.
Karama THABET, Hazem ABDELFAH, Alexandra CABRAL, M. A.
- p. 0885 **ID 144**
 Factors of industrial design through innovation.
Luis AGUSTIN HERNANDEZ, Laura ABAD TORIBIO
- p. 0893 **ID 170**
 OFFICIAMUSEUMED. The Mediterranean Museum System of
 Design and Applied Arts.
Claudio GAMBARDELLA, Jochen SIEGEMUND, Ayse OZBIL TORUN
- p. 0906 **ID 177**
 Imagination applied to European norms in "humanized"
 hospitals. More research, less cost.
Anna MAROTTA
- p. 0915 **ID 178**
 "Life flourish again" for San Lazzaro Hospital in Turin.
 More sustainable colour, less stress.
Serena ABELLO, Chiara CANNAVICCI, Marta BALZARRO

- p. 0924 **ID 181**
The use of Saudi National Identity in the development of originality and creativity among the students of the Fashion Design Department at Dar AL-HEKMA College to support the garment industry in the Kingdom of Saudi Arabia.
Hazem ABDELFATTAH, MS.DINA KATTAN, M. A.
- p. 0933 **ID 185**
Prototype design.
Rycycling, eco-compatibility and de-contextualization.
Antonino CALDERONE
- p. 0944 **ID 190**
Less versus More. Pondering Architecture and its Embodiment of Crisis.
Gerhard BRUYNS
- p. 0956 **ID 192**
Dualism and sensory awareness in architectural design.
Anna Marie FISKER, Mads Harder DANIELSEN
- p. 0966 **ID 197**
Urban Interaction Design an Other devices.
Alessandra CIRAFICI, Caterina Cristina FIORENTINO
- p. 0975 **ID 199**
From Sustainable Design to Empathic Design.
Ornella ZERLENGA
- p. 0985 **ID 209**
Color, Culture and Communication.
Laura CARLOMAGNO
- p. 0989 **ID 210**
[SMART]²: Sustainable Smart Innovation in Industrial Ceramics for Custom Multi-Product Design and Fabrication Strategies.
Stefano ANDREANI

table of contents_ Landscape

- p. 0999 **ID 002**
"Pluviogrammi" with high time resolution.
Maria Cristina MIGLIONICO, Giuseppe D'ANGELO
- p. 1009 **ID 005**
Amman's Land Typology: The Importance of Site Characteristics on the Delivery of Sustainable Buildings.
Sonia AL-NAJJAR, Wael AL-AZHARI
- p. 1024 **ID 006**
Minhocao Multiples Interpretations.
Eliana BARBOSA
- p. 1036 **ID 011**
Drawings for Engineering.
Laura INZERILLO
- p. 1046 **ID 019**
Environmental Planning: Case Study for Cocoa Coast Tourism Area – State of Bahia - Brazil.
Cristina Pereira de ARAUJO, Marco Aurélio GATTAMORTA Veridiana de Aguiar Coelho PINTO, Fernanda RHEIN, Elisangela Ronconi RODRIGUES, Sérgio Bernardes da SILVA

- p. 1054 **ID 021**
In the shape of a house.
Recycling the wastes of the city on the Neapolitan coast.
Fabrizia IPPOLITO
- p. 1061 **ID 022**
The documentation of cultural information used as vehicle for regional sustainable development. The case of olive culture.
Spyridoula ARATHYMOU
- p. 1067 **ID 028**
Testing Urban Landscapes.
Katrin KOOV
- p. 1075 **ID 029**
Technical and architectural integration of solar cooling system in a historical building.
Sergio SIBILIO, Efisio PIZALIS, Antonio ROSATO
Pasquale FALCONETTI
- p. 1082 **ID 031**
Archaeology and nature: hyblean cultural landscape and territorial regeneration.
Franca RESTUCCIA, Venera GRECO, Mariateresa GALIZIA
Cettina SANTAGATI
- p. 1092 **ID 032**
Industrial heritage, collective identity and eco-museums: the case-study of Floristella-Grottacalda mining site.
Antonella VERSACI, Alessio CARDACI
- p. 1102 **ID 034**
The tanneries di Barjols: a space built by reinventing.
Laura BLOTTO
- p. 1109 **ID 035**
The design of the urban centers of the Amalfi Coast.
Maria Archetta RUSSO
- p. 1119 **ID 046**
Cuma Archaeological Park: a communication strategies to improve public enjoyment.
Mara CAPONE
- p. 1129 **ID 048**
Road Infrastructures: methodological approach for the research of value added.
Michele CULATTI
- p. 1137 **ID 049**
Productive Landscape Design, a case study in southern part of Tehran.
Maryam SADEGHI, Zahra SADEGHI
- p. 1147 **ID 053**
Landscape of new energy.
Alessandra PAGLIANO
- p. 1154 **ID 055**
Camillo Sitte meets Robert Venturi at Berlin Südkreuz.
Jorg SIEWEKE

- p. 1158 **ID 060**
The design of sustainability in relation to innovative modernity and identity features of place.
Giacinto TAIBI, Rita VALENTI, Mariangela LIUZZO
- p. 1168 **ID 077**
Recognizing Cultural Heritage for Social Sustainability: A Spirit of Place Perspective.
Juliana FORERO, Liangping HONG
- p. 1178 **ID 078**
Teaching landscape architecture for the brain.
Miguel A. MEDINA
- p. 1190 **ID 081**
The landscape design between sustainability, heritage and new economies.
Maria Gabriella TROVATO
- p. 1200 **ID 082**
Drawings, signs and codes in landscape representation.
Stefano CHIARENZA
- p. 1210 **ID 090**
Open Spaces of Public Use.
Proposal of Methodology for their Classification.
Aylin PASCUAL, Jorge PEÑA
- p. 1220 **ID 092**
An example of integrated management of an heritage site: Bibracte – Mont Beuvray (Burgundy, France).
Vincent GUICHARD
- p. 1231 **ID 104**
Mythical landscapes: The Garden of the Villa “Ariadne” at Knossos.
Flavio ZANON
- p. 1238 **ID 106**
The city borders: new opportunities for the Mediterranean city.
Raffaella DE MARTINO, Luigi FOGLIA
- p. 1245 **ID 107**
Environmental Control of Toxicity of Urban Territories Using Biological Monitoring Methods.
Andrey VASILYEV, Leila KHAMIDULLOV, Liliana HYUKHTINA
- p. 1253 **ID 108**
Experience And Prospects of Environmental Planning of Towns of Russia Taking To Account Noise Factor.
Andrey VASILYEV, Vlada ZABOLOTSKIKH, Olga BYNINA, Julia TERESHCHENKO
- p. 1261 **ID 117**
A net of small museums for policies of planning, safeguard and government of Mediterranean archeological landscape.
Francesca FATTA , Domenico TOSTO, Andrea MANTI
- p. 1269 **ID 123**
Exploration of the open spaces in Varna as a component of the cultural landscape.
Todor BOULEV, Milena PETROVA

- p. 1276 **ID 130**
 Jordanian villages and landscape: more sustainable planning, less physical and social degradation.
Ahmed ABU AL HAIJA , Franca GIANNINI
- p. 1288 **ID 135**
 Cultural landscapes: materiality and spirituality in the mountains of Abruzzo.
Caterina PALESTINI
- p. 1295 **ID 141**
 Overlays in Amalfi Coast: Less and More of the elements in the landscape.
Luigi CORNIELLO
- p. 1301 **ID 159**
 A perspective from a contemporary point of view medieval.
Nadia FABRIS
- p. 1306 **ID 161**
 Reflections on drawing the landscape.
Piero BARLOZZINI
- p. 1314 **ID 163**
 Can large systems be resilient?
 Inspiration from structural engineering.
Claudia CENNAMO, Bernardino CHIAIA
- p. 1324 **ID 167**
 Chaotic development and urban morphology.
 The sign of the architectural anarchy.
Gerardo Maria CENNAMO
- p. 1335 **ID 172**
 The experience of the "Grands Sites de France".
Anne VOURC'H
- p. 1345 **ID 174**
 On the soundscape of folk festivals as intangible cultural heritage.
Luigi MAFFEI, Maria DI GABRIELE, Saverio CARILLO
- p. 1352 **ID 175**
 'Saving Istanbul's Ecosystem: TRANSMAR, Europe-Asia 50 km Floating Bypass Viaduct.
Ahmet VEFIK ALP
- p. 1357 **ID 194**
 Recycling urban spaces. An alternative action research on sustainability and creativity in Irvy-Sur Seine.
Silvana SEGAPPELLI
- p. 1364 **ID 195**
 From urban sprawl to eco-compact city: the urban renaissance.
Luigi MOLLO, Rosa AGLIATA
- p. 1372 **ID 196**
 The case of an evangelical itinerary on Tiberias lake.
Cesare CUNDARI, Gian Carlo CUNDARI
- p. 1376 **ID 198**
 Spectral analysis of wave characteristics on the back of submerged barriers in the Mediterranean.
Maria Cristina MIGLIONICO, Giuseppe D'ANGELO

- p. 1386 **ID 200**
Management models of sites of excellence in France for the rural landscape of the province of Caserta.
Alessandro CIAMBRONE
- p. 1396 **ID 201**
Knowledge and representation for landscape re-design: the area of Lago Piatto in Castel Volturno.
Nicola PISACANE
- p. 1404 **ID 203**
The process of the project by Marcello Piacentini object to the city: clarity and Expression for wise and balanced use of proportions.
Fabio CONVERTI
- p. 1413 **ID 204**
The Gisbusiness as a tool to manage change and innovation.
Gabriella ABATE
- p. 1421 **ID 205**
Cultural landscape and Culture of landscape.
Gaia GIORDANO
- p. 1428 **ID 213**
Speculations on the Future City.
Fatih RIFKI
- p. 1437 **ID 216**
"Carolino" Acqueduct landscape.
Gilda EMANUELE
- p. 1446 **ID 217**
Contribut of technological innovation to reinforce the multidimensional knowledge of environment and direct its development.
Lina ABATEGIOVANNI
- p. 1453 **ID 219**
LANDesign: from "Orto di San Lorenzo ad Septimum" to "Smart Garden".
Andrea BUONDONNO, Sabina MARTUSCIELLO, Maria Dolores MORELLI

Imagination applied to European norms in “humanized” hospitals. More research, less cost.

Anna MAROTTA¹

⁽¹⁾ Department of Architecture and Design, Faculty of Architecture, Polytechnic of Turin, Turin, Italy
E-mail anna.marotta@polito.it

Abstract

The architect M. Tedeschi worked to an update project for the Department of Medical Oncology at the San Carlo Hospital in Milan (1994). It was part of a larger Humanization Project for that hospital. He compared the concept of humanization to that of *Heimlichkeit*, that means the comfort feeling, quiet, peace sensations and home warmth that everyone yearns for.

In 2001, U. Veronesi - with R. Piano - presented a preliminary *Preparatory Metaproject for guidelines definition in hospitals design* in the Italian Regions, in which patients and their needs play a major role in the humanization project. This is a theme of topical interests, characterized by a lot of researches and applications.

This paper aims to verify the colour role in the hospitals humanization process and will show, with general scientific criteria, an interesting colour restyling experiment conducted (as voluntary work) by the author for the San Lazzaro Hospital in Turin, in collaboration with ANDOS, Sikkens and Politecnico of Turin.

Thus, by combining hospital voluntary work, technical and scientific research (public and private) and creativity, an important objective for the care and comfort of patients and hospital has been achieved. It has been conducted a “pilot project”, with procedures based on norms, (without costs for the public institution) replicable in other similar situations.

Keywords: humanization, comfort, design, colour, research

1. Introduction

The architect M. Tedeschi worked to an update project for the Department of Medical Oncology at the San Carlo Hospital in Milan (1994). It was part of a larger Humanization Project for that hospital. He compared the concept of humanization to that of *Heimlichkeit*, that means the comfort feeling, quiet, peace sensations and home warmth that everyone yearns for.

Unfortunately, often the formal language - and not only - of hospital architecture, informs residents, workers and visitors who stay in the hospital does not mean “dwell in the hospital,” but live in another world: clean rooms, neutral colours, cold materials, furnishings anonymous, shared bathrooms and sometimes without a mirror, impersonal and depressive waiting [2].

The problems of the disease seems to add the “punishment” of a harsh environment, if not hostile, in any case not communicative and non-interactive.

In 2001, U. Veronesi - with R. Piano - presented a preliminary *Preparatory Metaproject for guidelines definition in hospitals design* in the Italian Regions, in which patients and their needs play a major role in the humanization project. This is a theme of topical interests, characterized by a lot of researches and applications.

This paper aims to verify the colour role in the hospitals humanization process and will show, with general scientific criteria, an interesting colour restyling experiment conducted (as voluntary work) by the author for the San Lazzaro Hospital in Turin, in collaboration with A.N.D.O.S. (Turin), Sikkens (who donated paints and materials produced in observance to the European norms) and Politecnico of Turin (who has granted his patronage).



Fig. 1: Visual examples: environmental comfort can determine the quality of life in place of care, influencing the therapeutic response.

An important goal for the comfort and the cure of the patients and the hospital workers has been reached through volunteer, scientific-technological researches (public and private) and creativity: a “pilot project”, with no costs for the public institutions, started with the possibility to reapply it in similar contexts. The results of such experiments are being analyzed through psychological tests by the Clinic of Psychology and Oncology of the University of Turin.

The term “humanization”, in its broad meaning, implies, in the design and managing of the sanitary structures, the need to use other than functional criteria, also integrative approaches sensible to the psychology and the relationship system of the patient, to avoid maladjustment and improve the recovery. Particular attentions have to go on the hospital operators, doctors and paramedics, since the conditions of their job has a double outcome: on them, as workers, and on the users.

Social-cultural changes, like for example migration flows, have to be taken into account for the design part to adapt to the continuously changing reality, in order to have hospitals adjusting to the patients and not vice versa.

Many recent studies on environmental psychology show that the environment can strongly influence the behaviours and relationships of people, being fundamental for the quality of the structures. Colours and visual components can be taken as examples for what concerns the creativity.

S. Marsicano [3] highlights that in the Anglo-Saxon clinical language exist two different ways to call a treatment. Cure, more technical and used for a clinical-scientific therapy, and care, more global, which takes into account all the patient’s needs and requests. In the Italian sanitary structures the cure is usually excellent, but part of the effort is vanished because of the lack of care.

F. Spinelli, E. Bellini, P. Bocci and R. Fossati [4] are the authors of “Lo Spazio Terapeutico”. They show how “in the public construction industry the spaces, mostly the interior parts, are considered apart from the people and the activities than later will take place in them. This general project approach generated “stranger” spaces, hard to live and costly to maintain, causing environmental discomfort, lack of participation in the activities and dissatisfaction in the public services, identified in the environment itself”.

1.1 The characters

Many are the characters involved in this ambitious project: A.N.D.O.S. Onlus Foundation in Turin (President Dott. F. Pedani), the research team Policroma from the Polytechnic of Turin (Scientific coordinator Prof. A. Marotta), Hospital University San Giovanni Battista in Turin (pursuer Dott. E. Iodice), the Oncology Department of Medicine 2 San Lazzaro Hospital (Head Physician Dott. M. Airoidi and Day Hospital coordinator Dott. F. Pedani), the Director of the Psychological Oncology Clinic from the University of Turin (Prof. R. Torta and Dott. A. Varetto), the Technical Office from the Hospital S. Giovanni Battista in Turin (Geom. M. Regis), AKZONOBEL through the Sikkens sign (A. Fagotto - national coordinator for commission relationships with his team PSC arch. F. Pezzo and eng. B. Moretti).

The research team Policroma, coordinated by myself, gathers many architects – professors, researchers and

professionals - all involved in different activities, as publications and thesis, which produces a solid background to face the considered problematic. Some of them are: Serena Abello, Chiara Cannavicci, Marta Balzarro, Gaetano De Simone, Ilaria Matta, Raffaella Ricchi e Eliana Milani.

2. Chromatic restyling project

The collaboration between the research team Policroma, coordinated by myself with the Politecnico di Torino, the Fondazione A.N.D.O.S. Onlus in Turin and Sikkens, starts from the need to modify the perception of the common areas in the Oncology department of the San Lazzaro Hospital in Turin.

In the intervention of humanization the picking of the colour is never neutral and cannot be linked at automatism: it has to be ruled by scientific-disciplinary methods.

The project is born from disciplinary and specific experiences and knowledge grew in several years. Many publications and specific studies on the colour in architecture have been made, the results of those are systematically shown in the publication from the title *Policroma. Dalle teorie comparate al progetto del colore* [5].

The original approach of the comparative theories of colour for the analysis and design are confirmed : too many times authors and general public mention a general colour theory without anchoring it to the respective cultural matrices and to identifying parameters.

The research is inserted in a wider field of humanization of the public spaces, through interventions able to find or recover the “humanity” of places. The main goal of the group “Policroma” is to study the effects that the interior and exterior environment creates on the human perception. One of the key role of the study is the colour since it is one of the important factor which characterize the spaces. Policroma aims to find a guide line to humanize the public spaces throughout the analysis and application in the Turin area. The effort of the group, that concretely operates decorating through volunteering, add affective quality to the meaning of the project and the message to the patients.

For a complete explanation of the project see the attached report made by S. Abello, C. Cannavicci, M. Balzarro.

3. Themes and goals of the project

The project took inspiration from the metaphor of Ettore Sottsass (how to forget the rhetoric triad of the flores, lumina, colores) for which the architectonic language should be used in the research of an authentic relation between life and architecture. This in order to create spaces like metaphors and not only “buildings” to watch and coldly live. The project links the general meaning of the metaphor to the specific one of the floral metaphor. The thought is instead related to the garden therapy, which got many results either in the prevention and the therapy.

This is the main theme of the restyling project since the beginning, called “Rifiorisce la Vita!”. The idea shaped around the awareness that nature helps and improve the recovery but cannot substitute the conventional cures; in this way gardening helps the dejected patients to smile again and the anxious ones to dissolve the urgency to do things. From this way it is possible to face the recovery constructively and to improve it.

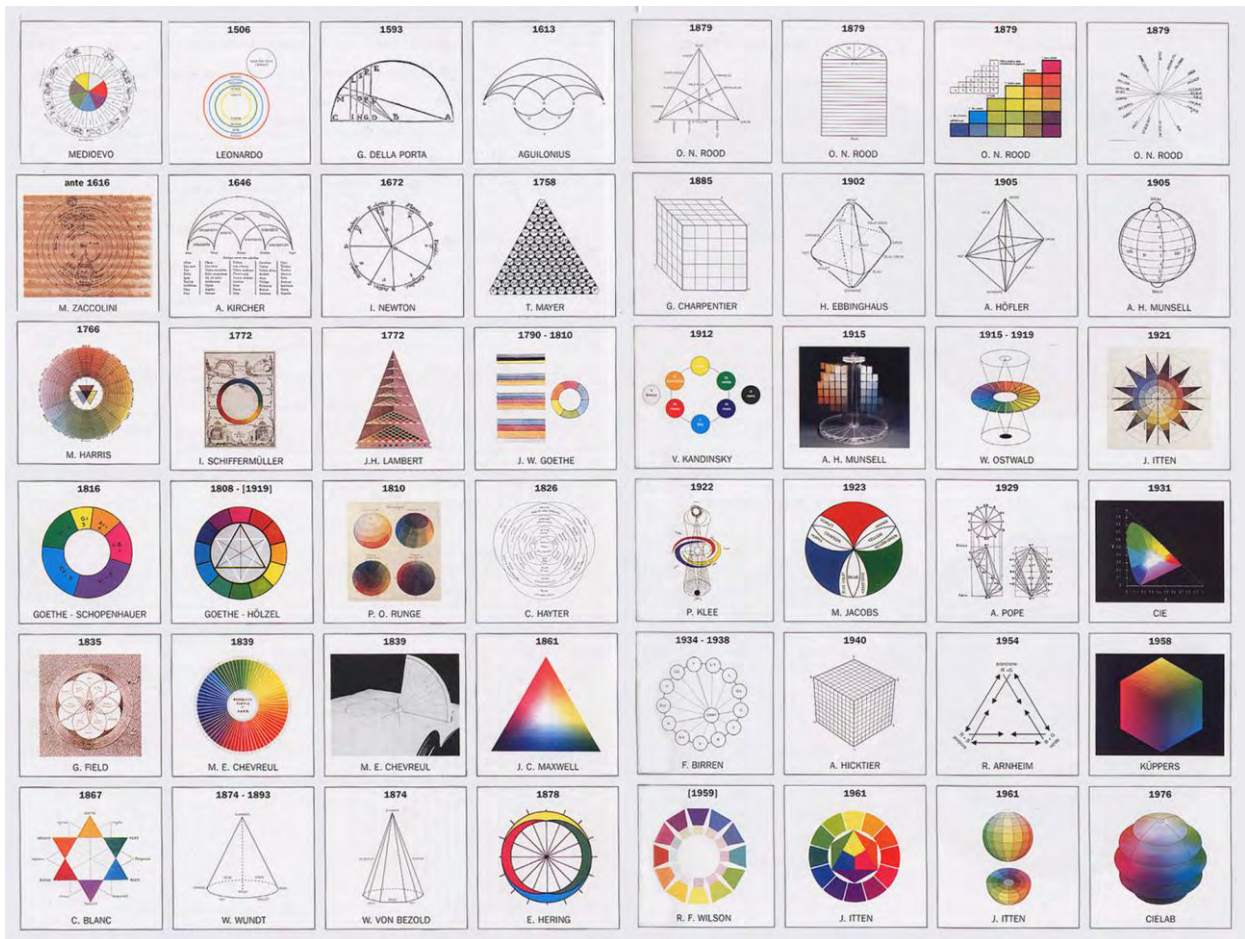


Fig. 2: Policroma: the icon of a historical-critical method. Systematic overview of the theories compared with the respective models. In: MAROTTA, Anna. *Policroma. Dalle teorie comparate al progetto del colore*, Torino: Celid, 1999, p. 54. Only a disciplinary warning and critical approach can lead to analysis and conscious design. Unfortunately there is often a "project of colour" without the necessary process of knowledge, capable of embodying the choices to the most suitable matrices cultural, and theoretical aspects associated with its authors.



Fig. 3: The corridor of the department of Medical Oncology 2 San Lazzaro University Hospital San Giovanni Battista in Turin before the restyling of colour.

4. A sustainable Design

A big ally that the restyling project have found is the Sikkens company [6] – world polishes producer and seller, which always pay attention and respect the environment and the people. The company's policy immediately merged very good with the project. Sikkens vision contemplate the sustainable develop and trade social liability. One of the best answer for the today market since all the products are passion made to guarantee high quality results and low impact on the environment.

This contribution has been of great importance, underlining how in a multidisciplinary project is fundamental to calculate working methods "safe" for all the practitioners. Methods close to the design demands of an hygienically controlled place, which also have to be easy to clean, with low environmental impact and enjoyable. Sikkens introduced a new product specific for the medical-sanitary market following the latest European norms. The range of produces is based on the everyday needs and problems of the related sector. Specifically for the Oncology department of the San Lazzaro Hospital in Turin these following products have been adopted:

- *Alpha Sanoprotex*, water painting useful to inhibit the proliferation of bacteria(*Staphylococcus Aureus* *Meticillino-Resistente* – MRSA, *Escherichia Coli*, *Pseudomonas Aeruginosa*, *Acinetobacter Baumannii*, *Enterococcus Hirae* e *Streptococcus pneumonia*). The secret is in the silver ions acting on the bacteria with the addition of a particular washable and resistant film. (Classe 1 EN 13300). The efficacy increases when washed and rub, it isolates the Isobetadine and other sanitizers;
- *Wapex 660*: water epoxy product bi-composed for floors and walls. Covering suggested for locales in where the use of solvent products is not permitted. Low odour and low COV content(less than 15g/l), it has been approved by the norm ISO 8690, also applicable in locales with the presence of food (UNI 11021).



Fig. 4: 2012, Anna Marotta with Policroma group. Each function is characterized by a flower and its colour. Flowers and colours become the elements that help the Hospital users not to experience feelings of alienation from space and places of care. In this picture, the hallway of the Department of Medical Oncology 2 San Lazzaro, University Hospital San Giovanni Battista in Turin after the restyling project.



IBISCUS



CAMPANULA



Fig. 5: 2012, Anna Marotta with Policroma group. Illustrative examples of abstraction that led to the creation of the stencil.



5. Colour and emotional comfort

The multidisciplinary of the project also enclose a phase of analysis and check. It is scientifically tested by psychologists from the S. C. D. U. Department directed by the professor R. Torta and from the A. O. U. Team from the S. Giovanni Battista Hospital in Turin.

The assumption is, as said, the existence of hidden messages contained in the environment that the workers and patients can interpret in different ways, consequently this can influence the final result of the cures. So, the goal is to plot the colour perception in sanitary locales related to the psychophysics wellbeing of people. The challenge is to unify the objective measurements of the emotional changes related to personal perception and codification of colour and visual field in general. The tools used are psychological tests composed by a semi-structured interview on contexts/colour. All the results are going to be statistically organized.

Rowlands, in 2008, referring to this subject wrote about three important topics: the direct view on nature and its colours can mend the stress and reduce the pain: improve the locales allocated to social purposes accommodates the psycho and physical recovery; finally sticking to the cures reduces anxiety in the patient and in the patient's family.

The research's expectations can be summarized in: a reduction in the anxiety symptoms, a correlated reduction linked to the picking of colours, an improvement in satisfaction for the cures received. The goal the will be anyway achieved is a higher attention to the humanization of the medical field and more colour in the everyday work in the hospitals.

Alcuni esempi di test: particolari

da riferirsi a immagini ambientali

HADS – Hospital Anxiety and Depression Scale

Legga ciascuna domanda e barri con una croce la risposta che più si avvicina a come Lei sentito/a nel corso dell'ultima settimana.

<p>1. Mi sono sentito teso o molto nervoso:</p> <p><input type="checkbox"/> Per la maggior parte del tempo</p> <p><input type="checkbox"/> Per molto tempo</p> <p><input type="checkbox"/> A volte</p> <p><input type="checkbox"/> Mai</p>	<p>8. Mi sono sentito rallentato:</p> <p><input type="checkbox"/> Quasi sempre</p> <p><input type="checkbox"/> Molto spesso</p> <p><input type="checkbox"/> A volte</p> <p><input type="checkbox"/> Mai</p>
<p>2. Sono riuscito ancora a provare piacere per le cose che ho sempre fatto volentieri:</p> <p><input type="checkbox"/> Proprio come una volta</p> <p><input type="checkbox"/> Non proprio come una volta</p> <p><input type="checkbox"/> Solo in parte</p> <p><input type="checkbox"/> Per niente</p>	<p>9. Mi sono sentito nervoso, come tensione allo stomaco:</p> <p><input type="checkbox"/> Mai</p> <p><input type="checkbox"/> A volte</p> <p><input type="checkbox"/> Piuttosto spesso</p> <p><input type="checkbox"/> Molto spesso</p>

GSQ General Satisfaction Questionnaire

12. I servizi che ha ricevuto l'hanno aiutata a affrontare con maggiore efficacia i suoi problemi?			
4	3	2	1
si, mi hanno aiutato molto	si, mi hanno aiutato un po'	no, non mi hanno aiutato	no, mi sembra che abbiano peggiorato le cose

13. Se avesse ancora bisogno di aiuto, si rivolgerebbe di nuovo a questo servizio?			
4	3	2	1
no, certamente no	no, penso di no	si, penso di si	certamente si

14. In che misura è soddisfatto dell'insieme delle attività offerte da questo servizio?			
4	3	2	1
molto soddisfatto	soddisfatto	insoddisfatto	molto insoddisfatto

Istruzioni: La preghiamo di cerchiare il numero (da 0 a 10) che meglio descrive la quantità di disagio emotivo che ha provato nell'ultima settimana oggi compreso.

10 = MASSIMO DISAGIO EMOTIVO (MASSIMO STRESS)

0 = NESSUN DISAGIO EMOTIVO (NESSUNO STRESS)

Fig. 6: Extract from the presentation of the work with some examples of psychological tests. taken from the study proposed by Director of the Psychological Oncology Clinic from the University of Turin (Prof. R. Torta and Dott. A. Varetto).

6. Conclusions

Architects and builders cannot of course “donate” therapy, but they can for sure give quality to the hospitals: this is what our project is about.

Considering the preset goals the following are the one achieved: a concrete example to show and use for future applications, derived from a accurate research on the lowering of prices and a careful picking of chromatic aspects. This to avoid the wasting of money, mostly public, on dispersive actions not profitable for the patients, visitors and medical operators.

At San Lazzaro Hospital in Turin “Rifiorisce la Vita”

The life flowers in the sanitary system, in the prevention, in the efficiency of the therapy, in the effort, competence and passion of doctors and their helpers. In the fight of the single patient and its family and friends. In volunteering, in generosity of private companies, in everywhere, but especially in the hospital!

Riferimenti bibliografici

- [1] TEDESCHI, Mario. Riflessioni sull'abitare con agio nelle istituzioni. In MARSICANO, Sergio. *Abitare la cura – Riflessioni sull'architettura istituzionale*. Milano: Francoangeli, 2002, pp. 170 – 192.
- [2] DONNA BIANCO, Anita. *Umanizzazione negli ospedali: questioni di metodo*, Tesi di laurea del Politecnico di Torino, II Facoltà di Architettura, rel. A. Marotta, a.a. 2007-2008.
- [3] MARSICANO, Sergio. *Abitare la cura – Riflessioni sull'architettura istituzionale*. Milano: Franco Angeli, 2002.
- [4] SPINELLI, Fiorella, BELLINI Eva et al.. *Lo spazio terapeutico. Un metodo per il progetto di umanizzazione degli spazi ospedalieri*. Firenze: Alinea, 1994, pp. 8 - 9.
- [5] MAROTTA, Anna. *Policroma. Dalle teorie comparate al progetto del colore*, Torino: Celid, 1999.
- [6] Web: <http://www.akzonobel.com>
- [7] MAROTTA, Anna. *Architettura e teorie del colore nella Torino liberty*, in MANDELLI, Emma (a cura di). *Colore, luce e materia tra superfici e spazio*, Firenze: Alinea 2000, pp. 185-192.
- [8] MAROTTA, Anna. La stanza degli specchi: il contributo dell'area della rappresentazione per l'architettura di interni. In: MINUCCIANI, Valeria. VAUDETTI, Marco. (a cura di), *Temi e strategie di ricerca nell'Architettura degli interni*. Torino: Hapax, 2007, pp. 63-68.
- [9] MAROTTA, Anna. Qualità dell'immagine, qualità dell'architettura. in MAROTTA, Anna (a cura di). *Qualità dell'architettura qualità della vita*. vol. 1, Torino: Celid, 2008, pp. 41-51.
- [10] MAROTTA, Anna. CANNAVICCI Chiara. Colore esaltato, colore negato. Esempi positivi nell'architettura Liberty, esempi negativi nell'architettura ospedaliera, in *Il colore nel costruito storico. innovazione, sperimentazione, applicazione*, atti del XXXIII Convegno Internazionale dei docenti delle discipline della Rappresentazione, Lerici in corso di pubblicazione.
- [11] CATALANO, Tiziana. MATTA, Ilaria. *Il colore nella struttura dello spazio architettonico, esempi nell'architettura europea tra le due guerre*, Tesi di laurea del Politecnico di Torino, II Facoltà di Architettura, rel. A. Marotta, a.a. 2001-2002.
- [12] CHARLES, Giuliano. *Cromie per il benessere*, Tesi di laurea del Politecnico di Torino, II Facoltà di Architettura, rel. A. Marotta, a.a. 2002-2003.
- [13] BIDESE, Paolo, *L'uso funzionale del colore negli ambienti sanitari*, Tesi di laurea del Politecnico di Torino, II Facoltà di Architettura, rel. A. Marotta, a.a. 2007-2008.
- [14] CORRONCA, Carlo. *Psicolor: la psicologia del colore nell'architettura*, Tesi di laurea del Politecnico di Torino, II Facoltà di Architettura, rel. A. Marotta, a.a. 2009-2010.
- [15] PISANI, Alessandro. *Il colore come parametro di progetto nell'architettura sostenibile*, Tesi di laurea del Politecnico di Torino, II Facoltà di Architettura, rel. A. Marotta, a.a. 2010-2011.
- [16] BALZARRO, Marta. *L'ospedale a colori a misura di bambino*, Tesi di laurea di primo livello del Politecnico di Torino, II Facoltà di Architettura, rel. A. Marotta, a.a. 2010-2011.
- [17] BERGAMO, Valeria. *Colore e luce*, Tesi di laurea di primo livello del Politecnico di Torino, II Facoltà di Architettura, rel. A. Marotta, a.a. 2010-2011.
- [18] MARELLO, Silvia. *QUO VADIS? Analisi per l'orientamento e il wayfinding nei luoghi di cura*. Tesi di laurea del Politecnico di Torino, II Facoltà di Architettura, rel. A. Marotta, a.a. 2010-2011.




**FACOLTÀ DI ARCHITETTURA
LUIGI VANVITELLI**
nihil est sine deo signo


scdAR.
 luigi vanvitelli


benecon
 knowledge network




forum UNESCO
 UNIVERSITY AND HERITAGE


UNESCO
 United Nations
 Educational, Scientific and
 Cultural Organization


 Commissione Nazionale
 Italiana per l'UNESCO

FULBRIGHT

 The US-Italy Fulbright Commission
 Linking Minds Across Cultures


**MINISTERO
PER I BENI E
LE ATTIVITÀ
CULTURALI**


**Camera
dei
Deputati**