

# **Teaching Conservation/Restoration of the Architectural Heritage**

## **Goals, Contents and Methods**

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University of Genoa*



*DSA – Department of Sciences  
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University of Genoa*

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# ΑΝΑΠΑΡΑΣΤΑΣΙΣ / RESTORATION

## Teaching Conservation/Restoration of the Architectural Heritage

Goals, Contents and Methods

editors

Stefano F. MUSSO, Luisa DE MARCO

**Teaching Conservation/Restoration of the Architectural Heritage  
Goals, Contents and Methods**

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Editors:

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This book presents the contributions to the workshop that took place at the University of Genoa, Faculty of Architecture, on October 2007, as a new start for the thematic sub-network on Conservation, within EAAE and ENHSA. The workshop was the occasion to bring together educators in conservation, from various European Schools of Architecture, in order to:

- investigate similarities and differences, about contents and pedagogy of teaching, within the field of conservation/restoration of the architectural heritage;
- examine the ways in which the teaching of conservation/restoration is present in the curricula of different schools;
- critically compare educational objectives and strategies implemented by the schools in relation to conservation/restoration matters;
- exchange ideas and thoughts on new teaching methods and discuss the role of the teaching of conservation/restoration for an architect.

The workshop was attended by almost 100 participants representing: Belgium, Canada, Denmark, France, Germany, Greece, Ireland, Israel, Italy, Netherlands, Norway, Portugal, Rumania, Spain, Turkey.

## Opening Session

### Introduction

Stefano F. Musso *Coordinator of the sub-network on Conservation*  
DSA - Department of Sciences for Architecture, University of Genoa (Italy) ..... 15

### Method, procedures, protocols

Paolo Torsello  
DSA - Department of Sciences for Architecture, University of Genoa (Italy) ..... 27

### Presentation of the R. Lemaire Centre for Conservation

Luc Verpoest, Herman Neuckermans, K. De Jonge, Koenrad van Balen  
"Raymond Lemaire Centre for Conservation",  
Katholieke Universiteit of Leuven (Belgium) ..... 33

## First Session

### What and why?

#### Keynote speech

#### Teaching/Thinking/Learning/Doing

#### Conservation and Creativity in Architectural Education

Prof. Loughlin Kealy  
School of Architecture, University College of Dublin (Ireland) ..... 41

#### L' Architecte pour la Restauration: une Expérience Didactique à Naples

Aldo Aveta  
University "Federico II", Naples (Italy) ..... 49

#### L' Architecte pour la Restauration: une Expérience Didactique à Naples

Bianca Gioia Marino  
University "Federico II", Naples (Italy) ..... 57

#### Why Teaching Conservation at all in a Mercantile Society?

Adrian Crăciunescu  
University of Architecture and Urbanism "Ion Mincu", Bucharest (Romania) ..... 67

#### Technology of Architecture towards Conservation

Giovanna Franco  
DIPARC - Department of Architectural Design and Construction,  
University of Genoa (Italy) ..... 73

<p><b>Learning pre-modern Architectural and Construction Arts at the Faculty of Architecture, University of Rome Three</b>  Francesco Giovanetti*, Michele Zampilli**  *Municipality of Rome,  **Department of Design and Study of Architecture,  University of Rome Three (Italy) .....</p>	85
<p><b>The Restoration Teaching in the Laboratories of the second year at the Faculty of Civil Architecture of the Polytechnic of Milan</b>  Gabriella Guarisco  Department of Design of Architecture, Polytechnic of Milan,  Campus Bovisa (Italy) .....</p>	101
<p><b>Summary of Educational Programme in Transformation and Conservation at Department 5; Architecture, Space, Habitation and Building Culture and of Research at the Institute of Building Culture.</b>  Gregers Algreen-Ussing  School of Architecture, The Royal Danish Academy of Fine Arts (Denmark) .....</p>	107
<p><b>The Art of Blending</b>  Jo Coenen  School of Architecture, Delft University of Technology (The Netherlands) .....</p>	113
<p><b>Project-centered, Construction-centered Design in the Training of Architecture Students</b>  Eugenio Vassallo, Emanuela Sorbo, Sara Di Resta  Department of History of Architecture, IUAV, Venice (Italy) .....</p>	125
<p><b>Les Savoirs de la Sauvegarde</b>  Alberto Grimoldi  Department of Architecture and Planning, Polytechnic of Milan  Regional Pôle of Mantua (Italy) .....</p>	135
<p><b>Cultural Heritage Process Charted: Defining Competences to Decide Educational Programs</b>  Stefano Della Torre  Department of Building Environment Sciences and Technology (BEST),  Polytechnic of Milan, Campus Leonardo (Italy) .....</p>	149
<p><b>Teaching Conservation/Restoration in the Architectural Field: a Challenge for Heritage Protection Public Institutions</b>  Luisa De Marco  Regional Directorate of Liguria for Cultural Heritage  and Landscape - MiBAC (Italy) .....</p>	155

## Second Session

### How?

#### Keynote speech

##### How do we teach?

André De Naeyer

*School of Architecture, University College of Design Sciences "Henry van de Velde",  
Antwerp (Belgium)* ..... 163

##### Teaching in Diagnosis and Consolidation Courses

A. Anzani, L. Binda, L. Cantini, G. Cardani, P. Condoleo, S. Saisi

*Department of Structural Engineering, Polytechnic of Milan,  
Campus Bovisa (Italy)* ..... 173

##### An Architectural Heritage Graduate Studies Program: a Portuguese Experience

Jorge de Novaes Bastos

*Faculty of Architecture, Technical University of Lisbon (Portugal)* ..... 185

##### Conservation and Restoration in the University of Naples Federico II: Education in Profession and Research

Stella Casiello, Andrea Pane, Valentina Russo

*Department of History of Architecture and Restoration  
University of Naples Federico II (Italy)* ..... 195

##### The Teaching of Architectural Restoration on the Degree Course in Constructional Engineering-Architecture at the University of L'Aquila

Donatella Fiorani

*Faculty of Architecture, University of L' Aquila (Italy)* ..... 207

##### Teaching History and Theory of Conservation/Restoration

Lucina Napoleone

*DSA - Department of Sciences for Architecture, University of Genoa (Italy)* ..... 215

##### Teaching the Restoration of Monuments at Palermo: the State of the Art

Renata Prescia

*Department of History and Design of Architecture, University of Palermo (Italy)* ..... 221

##### Teaching restoration methodology:

##### Role of Scientific Contributions in the Conservation of Architectural Heritage

Franco Tomaselli, Gaspare Massimo Ventimiglia

*Department of History and Design of Architecture, University of Palermo (Italy)* ..... 229

##### Teaching Restoration in the first School of Architecture in Turin

Luciano Re, Barbara Vinardi, Monica Fantone

*Faculty of Architecture I, Polytechnic of Turin (Italy)* ..... 237



<b>Restoration Didactics in the Master of Science in “Environment and Land” II School of Architecture, Polytechnic of Turin, Mondovì</b> Maria Grazia Vinardi <i>Faculty of Architecture I, Polytechnic of Turin, Pole of Mondovì (Italy)</i> .....	247
---	-----

<b>Thinking while Doing, Doing while Thinking</b> Rita Vecchiattini <i>DSA - Department of Sciences for Architecture, University of Genoa (Italy)</i> .....	257
---	-----

## Third Session

### **Who?**

#### Keynote speech

<b>Challenges in Moving from Architectural Conservation Education to Heritage Conservation Education</b> Herb Stovel <i>Heritage Conservation Program, School of Canadian Studies, Carleton University, Ottawa (Canada)</i> .....	267
---	-----

<b>The Didactic Activities Carried out by the Diagnostic Laboratories, Faculty of Civil Architecture – Politecnico di Milano</b> Francesco Augelli, Susanna Bortolotto, Cristina Tedeschi <i>Department of Design of Architecture, Polytechnic of Milan, Campus Bovisa (Italy)</i> .....	275
--	-----

<b>Archaeology of Architecture, Restoration, Teaching: “Why” and “How”</b> Prof. Anna Boato <i>DSA - Department of Sciences for Architecture, University of Genoa (Italy)</i> .....	285
---	-----

<b>Conservation Studio Studies at the Tel Aviv University School of Architecture Documentation, Conservation and Planning in an Historic Environment</b> Amnon Baror <i>Yolanda and David Katz Faculty of the Arts, The David Azrieli School of Architecture, Tel Aviv University (Israel)</i> .....	295
--	-----

<b>Teaching of “Restoration” at School of Civil Architecture of Politecnico di Milano Doctrine Contents, Teaching Methods and Perspectives</b> Maurizio Boriani, Mariacristina Giambruno <i>Department of Design of Architecture, Polytechnic of Milan, Campus Bovisa (Italy)</i> .....	303
---	-----

<b>Conservation of Architectural Heritage: the Maintenance Culture in the Education Process</b> Gabriella Caterina, Maria Rita Pinto, Serena Viola, Paola De Joanna <i>Department of Configuration and Realization of Architecture, University of Naples "Federico II" (Italy)</i> .....	309
<b>Thoughts on the Teaching of Restoration: the Preservation Project today</b> Maurizio De Vita <i>Department for the Restoration and Preservation of Architectural Heritage, University of Florence (Italy)</i> .....	315
<b>Contents and Way of Teaching of a Course in Restoration at the Faculty of Architecture of the University IUAV of Venice</b> Francesco Doglioni <i>Department of History of Architecture, IUAV, Venice (Italy)</i> .....	323
<b>Teaching Planned Conservation to Enhance an Idea of Tutorship Different from Restoration</b> Anna Decri <i>DSA - Department of Sciences for Architecture, University of Genoa (Italy)</i> .....	329
<b>From the Analyses to the Project: Experiences of the Restoration Laboratory Bachelor three years course in Architectural Restoration</b> Daniela Pittaluga <i>DSA - Department of Sciences for Architecture, University of Genoa (Italy)</i> .....	333

## Fourth Session

### ***When and to what extent?***

Keynote speech

<b>When and to What Extent do we Teach Conservation/Restoration?</b> Carolina Di Biase <i>Department of Architecture and Planning, Polytechnic of Milan Campus Leonardo, Pole of Mantua (Italy)</i> .....	345
---	-----

<b>Contributions of the Technical Sciences Area in Teaching Conservation/Restoration of the Architectural Heritage</b> Rodica Crisan, Mircea Crisan <i>Technical Sciences Department, "Ion Mincu" University of Architecture and Urbanism, Bucharest (Romania)</i> .....	361
--	-----

<b>Restauration et Rehabilitation du Patrimoine Architectural</b> Hugues Wilquin <i>School of Architecture, Faculté Polytechnique de Mons (Belgium)</i> .....	369
---	-----

<b>From Architectural Conservation/Restoration to Heritage Conservation: Université de Montréal's Perspective on Heritage Education</b>	
Claudine Déom <i>School of Architecture, Université de Montréal (Canada)</i> .....	381
<b>In Search of Integration of Teaching Design and Teaching Conservation</b>	
Sevgi Lokce, Oktay Turan <i>Faculty of Architecture, Erciyes University, Kayseri (Turkey)</i> .....	389
<b>Teaching Restoration at the School of Architecture of Valencia</b>	
Camilla Mileto, Fernando Vegas, Juan Fco. Noguera <i>School of Architecture, Polytechnic University of Valencia (Spain)</i> .....	395
<b>The Interdisciplinary Programme for Post Graduate Specialisation Courses for Protection of Monuments, Conservation and Restoration of Historic Buildings and Sites</b>	
Helen Maistrou <i>Department of Architecture, National Technical University of Athens (Greece)</i> .....	403
<b>Le Role de l'Enseignement de l'Histoire des Techniques Artistiques en Connexion avec l'Architecture</b>	
Paolo Bensi <i>Second University of Naples (Italy)</i> .....	409
<b>Discovering Natural Materials again</b>	
Mana Rosa Montiani <i>Artistic Lyceum "Paul Klee - Nicolo Barabino", Genoa (Italy)</i> .....	413
<b>The Master Programme "Intervention Methodologies in Architectural Heritage"</b>	
Manuel Correia Fernandes <i>Faculdade de Arquitectura da Universidade do Porto (Portugal)</i> .....	421
<b>Teaching of Architectural Restoration in an Engineering Faculty</b>	
Gian Paolo Treccani <i>Faculty of Engineering, University of Brescia (Italy)</i> .....	425
<b>Posters</b> .....	429
List of participants .....	461





# Opening Session



**Stefano F. Musso**

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Italy

**Teaching Conservation/Restoration:  
Tendencies and Emerging Problems**

## **European Conservation/Restoration Teachers Network**

Between October the 18<sup>th</sup> and the 21<sup>st</sup> 2007, the first meeting of the Conservation Sub-Network, enabled by EAAE - European Association for Architectural Education - and by ENHSA - European Network of Heads of Schools of Architecture, has been held in Genoa.

This initiative ideally links itself to the two meetings organized a few years ago at the "Lamaire Centre pour la Conservation" of the Katholieke Universiteit of Leuven (Belgium), held by Professor Herman Neuckermans.

We here present the documents concerning the meeting and this volume, with its enclosures, is offered to its participants and to the international scientific community as a contribution for the prosecution of the activities and initiatives of the Conservation Subnetwork.

### **Genoa's workshop**

Addressing the invitation to all European Architecture Schools - either belonging or not to the Association - to take part to a Workshop, and not to a mere conference, has been meant to encourage the wider and freer participation and to establish conditions for the birth and development of a stable network of relationships between schools around subjects concerning the teaching of Conservation/Restoration.

The contextual use of these two terms was meant to avoid any preventive selection connected to the meanings they take in different European settings, while Architecture Schools are going through a stage in which they show a growing interest as regards tutorship, safeguard and management of the architectural, urban and environmental heritage. First pursued objective was, perhaps reductively, drawing a sort of "map" of what is happening in this field, to find out and fix information about "where" - that is in which schools of which countries Conservation/Restoration is taught - letting a free interpretation to the possible significances attributed to the two terms in different contexts, even if we are aware they tend to be indomitable set against.

Surely, the map's construction could also have been enhanced by an inquiry through questionnaires, or by drawing on the information available on the Web, but inviting teachers to a direct discussion has seemed to be the most efficacious choice. Genoa has been chosen as event's site because I teach at the Architecture's Faculty of this city and because Genoa appears to be, for its history and for its conditions these days, an emblematic place and a powerful metaphor of what a confrontation on Conservation/Restoration subjects, between people partly far from each other as regards their cultural education, competence and provenience, can bring.

We meant, in synthesis, to put conservation's teachers in confrontation, in its wider acceptance, in order to:

1. analyzing resemblances and differences in the contents and educational methods;
2. looking over the way the conservation/restoration's teaching fits in the different schools' curricula, as regards times, ways and wideness;
3. comparing educational objectives and strategies;
4. exchanging ideas and observations on teaching methods, discussing their role on the architect's formation.



Therefore, the Workshop has been organized with the aim of establishing a dialogue and begins from the written contributions sent by each participant and arranged in four sections, each one devoted to a specific theme expressed in the form of questions. Around these thematic arrangements, a panels' exhibition has also been mounted, showing the paths and results of the activities accomplished in the different schools. Debate's relations and panels' pictures are included, one as a recorded file, the others as images, in the enclosed CD.

## **Workshop's themes**

In synthesis, the questions proposed by the workshop's programme were the following:

*What is thought and taught as regards Conservation/Restoration and why?*

The whole answers to this questions should have provided the ground for reflecting about limits and borders of what we intend to be "heritage", but also about various interpretations as regards ideas, concepts and activities spotted, for instance, by the words: preservation, conservation, restoration etc. Other topics concern the contents of such teachings in architecture's school, which are: subjects and objects chosen for didactic activities, priorities which are assigned to them, which theoretical and technical principles are leading the organization of the Conservation/Restoration courses, which are the educational goals pursued...

*How Conservation/Restoration is taught?*

The question attains directly to the Conservation/Restoration "pedagogy", not only in terms of efficacious transfer of the knowledge involved, but also as regards synergies with other subjects included in the school's curriculum, with a particular attention to theoretical and operative aspects.

We ask ourselves, as a matter of fact, "if" and "how" heritage's care and restoration can be taught in a project-laboratory and with which limits and prerequisites; which is the role of other disciplines in our didactic activities - for instance humanistic disciplines - which one pertaining technical-scientific contributions and history (not only architecture's history). This is under investigation while we are trying understand if our didactics is prevalently bound to create competences and ability "to know, understand and judge (analyses, diagnosis, etc.)" or rather if it should also provide specific "operative abilities (programming, intervention, management)".

*Who teaches Conservation/Restoration?*

Understanding who teaches subjects concerning conservation and restoration is a further contribution for drawing up a coherent framework of information and for understanding the results that teaching obtains in the diverse European countries. We ask ourselves, in fact, which should be the necessary background to make a teacher able to reach the goals of his work, which kind of experience, in case professional, he should have and how colleagues of different disciplines could collaborate for the development of teaching and formative's activities in such a complex field.

### *When and to which extent Conservation/Restoration is taught?*

Absolutely crucial is the theme concerning the teaching time's collocation of Conservation/Restoration subjects in an architectural student's curriculum or, more in general, the formative routes offered by our school in this field. Often is asked in which year and in which kind of curriculum various themes connected to conservation and restoration should be fitted, but also "in which measure" and "how deeply" they should be faced.

### **Works in the classroom and discussions**

Workshop seems to have encountered a good success, judging by the participation of more than 20 schools of Architecture, eight from Italy and the others from Belgium, Denmark, France, Germany, Greece, Ireland, Holland, Norway, Portugal, Romania and Spain, besides Turkey, Israel and Canada.

Bills here render the answers provided by participants - in total freedom - to the four proposed questions which were, nonetheless, so deeply entwined one another to make a disaggregated treatment almost impossible to display. Some participants have actually faced explicitly only one of those questions, respecting the programme and the themes suggested, in such way to avoid, at least partly, the dispersion that is often typical of our conferences.

Others have instead brought forward contributions which, despite being not always coherent to what was requested, offered interesting ideas and important documentary information to the debate. It is necessary to remind, on the other hand, that the themes to be faced were admittedly general and concerning very open features, and that the proposed questions were objectively difficult to be separated and reciprocally limitable in a clear vision.

Either way, the program counted on the fact that sent contributions would have been assigned to a key-note speaker, who would have introduced the corresponding session with his own remark and, if possible, would have rendered briefly of the various contributions he was in charge of. This is the reason why, each of the four parts in which this volume is organized, opens up with the text of the key-note speaker's intervention, the one who co-ordinated the corresponding work session in the hall.

Each one of them, given the difficulty to collocate each single written contribution to a specific section, has - moreover rightly - freely interpreted his role. In some cases, introductory reports have only incidentally rendered contributions assigned to the relator, while, in other cases, a more punctual synthesis of their contents has been expressed.

This has not affected the course of the work, because the confrontation aroused by the solicitations proposed in the introductory reports was the real core of the discussions, while publishing documents and posters will render precisely to the public the several contributions that the workshop received.

Workshop's activities began with an introduction by Paolo Torsello entitled "*Methods, procedure, protocols*", felt by many as challenging and very "provoking". Paolo Torsello has first of all argued around the possible sense and role that a method can have (provided that it exists), as regards restoration's teaching and also as regards professional practice.

By a bolted game of cross-references and comparisons with other domains of human knowing and activities - mainly as regards Medicine - he came to the conclusion that such a method does not actually exist and cannot exist, as one can teach how to analyze a handiwork, or also how to choose and accomplish specific technical actions, but, according to Torsello, cannot teach how to build a synthesis, because a project is eminently a synthetic action and, by many aspects, a "creative" one.

What we call methods, in the teaching of architecture and - even more appropriately - in restoration, for Torsello, are in fact frequently reduced to simple "ways of thinking or behaving" each one of us adopts and would aim for taking in charge a wider and more universal role. Therefore, it is not a matter of a method universally recognized by a scientific community, but of an indistinct ensemble of ethic or ideological rules, which call the risk to deepen the division between the different competences involved in restoration and encourage a project to drift toward a misunderstood freedom, totally unbind from a rigorous knowledge of the artefacts and their context.

From these solicitations, a passionate and informal debate has aroused, with many participants involved. Mostly was Per Olaf Field, Norwegian architect, Architectural Design's teacher at the Oslo Architecture's School and EAAE's President, to take part to the debate. He pointed out his interest in Torsello's report and, in particular, the crucial role that conservation's themes - in a "Nordic" and not at all disciplinary vision - have for the future of architecture and contemporary cities.

Hard challenges, also because it is plain to see how difficult is for this sector's teaching to satisfy the fundamental need to conjugate prerequisites of the analytic study on the existing objects (method?) as well as the creative and projective needs (for their own essence synthetic or holistic) in a framework requiring great severity. These are challenges also underlined by Herman Neuckermans, one of the main protagonist at the "Lamaire Centre pour la Conservation" at the Leuven's University, in Belgium.

He had a vivacious dialog with Torsello about the notion of method which he proposed, asserting, in contraposition, that a method *does* exist and it is necessary for teaching conservation, mainly consisting in adopting technical and rigorous instruments to avoid students to fall into the false myth of the "creation for the creation".

This should happen at any level, even if, according to Neuckermans - prefiguring a subsequent topic - education in this field should involve already formed architects (but not just only architects) and be therefore a part of the post-graduation courses. Far too committing is, as a matter of fact, the specialization that this profession demands in this ambit to be faced in architecture's student's first years of education.

The clear distinction proposed by Prof. Neuckermans, along with many of his North-European colleagues, between education in the architecture's field, appertained to schools - that is Academy, as they tell fearlessly and with no irony - and the education of the architect, pertaining to the professional world, through the unsubstitutable training's activity, is not completely stranger to such a matter.

After this introductive stage, Luc Verpoest has illustrated the didactic organization, goals and structures of the "Lamaire Centre pour la Conservation", highlighting the particular didactic proposal of one of the most internationally renowned centres in the restoration's field.

His presentation provided a reference point for the interventions of representative of other architecture's schools which, during the workshop, witness of a very vari-

egrated scenery, substantially differenced in the two opposite orientations already anticipated by Neuckermans' interventions and in the aroused debate.

First orientation, peculiar for instance in Belgium and North Europe, aims at the definition of an accomplished architect's professional figure to which ensuring, only subsequently and by means of an appropriated post-graduation (or master) school, a well defined specialization, with the teaching of the competences inherent restoration's field (modalities and analytic procedures for knowing a historical building, theoretical orientations, technical and juridical competences etc.)

Second orientation, much more diffused in Italy, aims instead to pass on to the architecture's student the basic elements to face the themes of conservation, right from the first years of studying. The advantages already recalled (a more diffuse sensitivity for such themes) are challenged by the risk of establishing from the beginning a clear separation between conservation and architectural design, but as regards this topic the discussion had kept on going in and out, as it will be pointed out shortly

First thematic section, concerning *"what is thought and taught as regards conservation/restoration and why?"*, has been coordinated by Loughlin Kealy (Architecture's School in the Dublin's University College, Ireland) and included specific contributions by A. Aveta (Architecture's Faculty, Naples' University "Federico II", Italy), A. Craciunescu (Bucuresti's University "Ion Mincu", Romania), G. Franco (Architecture's Faculty, Genoa's University, Italy), L.G. Larsen (Fine Arts Danish Royal Academy, Copenhagen, Denmark), J. Coenen (Delft's Polytechnic, Netherlands).

Second section coordinated by André De Naeyer (University College of Design Sciences, Antwerpen, Belgium), was concerning *"the way restoration is taught"* and included contributions by A. Anzani (Milan's Polytechnic, Campus Leonardo, Italy), J. Bastos (Lisboa's Polytechnic, Portugal), S. Casiello, A.A. Pane, V. Russo (Architecture's Faculty, Naples' University "Federico II", Italy), D. Fiorani (Engineering's Faculty, L' Aquila's University, Italy), L. Napoleone (Architecture's Faculty, Genoa's University, Italy), R. Prescia e F. Tomaselli (Architecture's Faculty, Palermo's University, Italy).

Third section, inherent the *"changes occurring in restoration's education"*, also as regards its objects, has been introduced by Herb Stovel (Heritage's Conservation Program at the Carleton University, Ottawa, Canada) with a special attention to the wider context of competences and problems which restoration must deal with, even in the range of international institutions in charge of the tutorship. F. Augelli (Milan's Polytechnic, Bovisa, Italy), A. Boato (Architecture's Faculty, Genoa's University, Italy), G. Caterina (Architecture's Faculty, "Federico II" Naples' University, Italy), M. De Vita (Architecture's Faculty, Florence's University, Italy), F. Doglioni (Venice's University's Institute of Architecture, Italy) took part to this section.

Last section, dedicated to the discussion about *"when and in which context restoration and conservation are taught"*, has been introduced by Carolina Di Biase (Milan's Polytechnic, Campus Leonardo, Italy – Mantua's Pole) who has firstly recalled Milan's didactics path starting from late XIX Century's school, and then came to show current orientations, however yet to be defined. Subsequent interventions by R. e M. Crisan ("Ion Mincu" Bucuresti's University, Romania), H. Wilquin (Mons' Polytechnic, Bel-

gium), C. Deom (Montreal's University, Canada), A. Baror (Tel-Aviv's University, Israel), Y. Salman (Istanbul's University, Turkey) offered further sceneries inherent the didactic routes and results in the diverse European's schools.

In this volume, all workshop's written contents are published and now, perhaps, it is interesting to highlight a few themes emerged by the confrontation which took place during the works, underlining the transversal and recurring presence of some topics inside many answers to the questions proposed by the initial program.

### **Project and "right times" to teach it**

Project's topic, as already pointed out, emerged many times from the discussions and with meanings and accents profoundly different, regardless (it just had to be like this) the section that was under debate. We all know it is a crucial crossroad for teaching and professional practice, here and in other fields. Therefore someone underlined - also recurring to examples taken from concrete didactic experiences and with exhaustive critical analyses - differences existing between "project concerning a new object" and "project concerning an existing object", which would not just limit itself to be the mere sum of the functional modifications, but also takes real care of the depot full of memories, knowledge and potential that heritage carries with, to make it available for the future in the most undamaged and undivided state - if ever enriched by new resources and not certainly impoverished of the already existing ones.

On this side, many exhaustively analyzed reasons would witness a vision for the restoration's project to demand a "specialized projector" who could act, an architect (but not just only, at least for many North-European teachers), particularly skilled in such subjects, thanks to a specific formative path that it is on us to draw and manage.

The greatest differences in opinions and accents on this subject consisted, if ever, on the opportunity that this path could or should start from the beginning - as soon as the student enters our courses - or if rather should be applied over an already or almost accomplished route, within a more general area of architectural studies.

Of course, many topics supporting each thesis have been proposed and an accentuated and transversal gap emerged between those - in Italy but most of all in Northern Europe - holding as prevalent the second hypothesis, considering rather dangerous to anticipate too much conservation's themes, for the risk that this could bring, despite all good intentions, a loss of knowledge and specialized competences, and less rigor in the preparation of what abroad is often called "conservative architect".

For other participants, the anticipation of such themes in the first course's years would paradoxically bring an over-specialization carrying the risk of a dramatic separation between conservation and architectonic planning's competences.

On the contrary - not only for didactical, technical and content's concerns, but for mere pedagogic and educative reasons - many teachers claimed that the urgency of the challenges of heritage's conservation, in the contemporary societies, should suggest us to alert students right from their entrance in our schools, to avoid that the waiting for more mature times might bring, in perspective, a sort of acquired impermeability or indifference as regards problems of tutorship, safeguards and intervention on the existing heritage, by most students.

However there is a facet which is often underestimated, sometimes even simply ignored. The project is doubtlessly a crucial point in the process of Conservation/Restoration.

As regards, we could certainly list endless reasons why project of conservation/restoration of an existing object is and must be different from projecting new architecture, therefore demanding different didactic forms in order to be correctly understood and governed by the students.

However, project will be just one (even if fundamental) moment in the process of conservation/restoration of our historic, architectonic and environmental heritage, but a moment that “only apparently” ratifies its conclusion.

Here lies an enormous risk, for some commenter. Centuries of discussions, in fact, have not decided, neither will do those to come, doubts and possible alternatives concerning goals, objects, instruments and methods of the conservation/restoration project.

Meanwhile, if our didactic action only concentrates itself on its living contradictions, the hazard is losing other key elements of the problem.

As regards, Stefano Della Torre, among others, has invited us all to ponder. Analogous warnings are marked in Loughlin Kealy's contribution (*“Teaching/thinking/learning/doing. Conservation and creativity in architectural education”*), who suggests not to limit our look to the conservation's culture and teaching, meant as a withdrawn world, all-sufficient or, worst of all, self related.

He tracks a route between teaching and learning marked by profound divisions and connections, by polarities and reflected images.

He speaks of a today's world in which architecture and conservation often look like “poor neighbours”, not communicating, subjected to the perennial contraposition between exaltation of creativity and research for analytical rigor, between tension for knowledge and profession's pragmatism, in time of deep transformations which would instead demand their profound and meditated integration.

According to Kealy, though, the relationship between Conservation and Architecture is not only inside the common affiliation to the same world of objects, methods or instruments.

Conservation is tied to Architecture firstly by the common aim of inhabiting the world on an even keel, between memories of a past which can still be significant and productive and a future which must be free but not oblivious, for us not to waste what the earth has given and still gives us.

Therefore we need to ask “what” and “how much” architectural education can offer to conservation's education, but also - and with the same strength - “what” and “how much” conservation's education can offer to architectural education.

The reference to the contemporary philosophic and epistemologic thinking, starting from Lozano, has been the background to the report made by the professor of Architecture's School in the Dublin's University College which, on the other hand, has stimulated many in underlining the need of a higher integration with the architectonical designing disciplines, even by facing the risk – by many dreaded – that this would end up in a loss of centrality (or power!!!) of conservation.

However, it is required to ask ourselves if our scientific, cultural and didactic action can keep on, being proposed as a sort of “pillbox defence”, granted that it exists

or should exist, or if rather opening up for a confrontation in which our reasons would stand just because their own strength, instead of invoking weak protectionist or binding policies, when those are actually ignored or half tolerated by the society, for the welfare of which we are saying that they should be adopted.

On the other hand, it appears evident that the project, seen as a technical action tied to the artefact and its destiny, could not be the only focal point of our teaching's activity, also thanks Herb Stovel's contribution who, introducing the section devoted to "what do we teach", brought to the discussion a wide amount of questions, themes and objects which, for all we know, seem to be almost absent from the teaching's programs of many schools, most of all in Italy.

With a strong experience matured firstly as ICCROM's director and ICOMOS member, and today as coordinator of a conservation's master programs in Canada, Stovel has recalled attention on themes connected to management or, even, to normative rules which, certainly, closely concern restoration's teaching. Unless we reduce our teaching to a mere research of more or less sharable technical solutions (by many or few, by a "school" or another), the only attempts for answering questions which, at heart, others have selected before our intervention.

The fact is that, perhaps, we cannot just restrict the mere discussion or confrontation, sometimes hostile, exclusively on "how" technically intervene, completely ignoring "who" decides, "where" and, most of all, "why", what must or can be conserved or restored, as suggested by Stefano Della Torre in his contribution and as many others, included myself, focused during the workshop.

By and large, we cannot simply ignore, forget or avoid to face – while building school's paths to be offered to the would-be architect for him to learn what is restoration and, most of all, how to restore (!) - the many facets and implications which the problem implies at larger scales: urban, territorial, of the built landscape, and which exceed each artefact or building.

Most of all at these levels, it seems clear to us that the treated themes are profoundly entwined with more general processes, conditioning or marking our communities' and landscapes' culture, now ever immersed in a global and planetary dimension but always seeking more or less certain identities which, just as regards heritage, one presumes they should be deeply rooted and clearly expressed, demanding therefore an active tutorship and defence.

## **"Knowledge"**

Introducing the works and looking at the many Italian contributions that we received, together with the posters laid by the respective Schools, I have highlighted, partly with pleasure and partly with some worries, the crucial role the analytical and diagnostic apparatus have assumed, at least in the "Italian school" of restoration and conservation (if just for one moment we accept the instrumental use of this expression, for other aspects ambiguous and little significant).

There was a kind of satisfaction because, in the restoration's field during last decades, a common language surely developed, having evident and appreciable fallouts at least as regards research and didactics.



How can we ignore, though, the warning and critical observation that Paolo Torsello made as regards, with the enrichments his intervention brought to the hall debate?

Worries relative to the risk of a kind of consolidated orthodoxy, which hides sometimes a formalistic respect for some apparently inescapable rules, erased from this reflections, accompanied by a certain passiveness of our way to handle restoration, reflected also in the didactic field.

The same posters of many Italian schools testify this state of being. It seems that, at least formally and irrespective of the declinations connected to the single realities and their specific academic history, a kind of consolidated homogeneity is now ever reigning.

Never lacking are the survey, often supported by relevant technological devices; rich are the historical-storiographical inquiries grounded, very often, on strong and rigorous critic apparatus; more and more present and spread are meticulous collections of diagnostic data concerning the physical state of the artefacts, as regards the building materials, the techniques for their manufacturing and their state of deterioration/conservation, faithfully and punctually visualized and synthesized in “thematic maps” of sure communicative and perceptive impact; more and more diffused is appealing to refined simulation of intervention’s techniques, both on the built material and on the structures and spaces of ancient architectures.

From this point of view, “Italian school” of restoration seems to have achieved a highly elevated common standard. This does not seem to solve all problems and, instead, raises a few doubts around the efficaciousness of our teaching and the risks of a formal homologation to which does not seem to correspond an analogous strong presence in our teaching, in a field that, according to many commenters, appears to be beset or endangered by other disciplines.

Here would lay no scandal, but far too often this does not prelude to an effective generalization of the attention to the restoration themes, to the necessities and objectives by it postulated but, rather, it seems to announce the heritage’s depredation. Concerning this hazard, in fact, the apparent and soothing homogeneity of our technical apparatus can hide an uncomplaining or unconscious closure of our entourage as regards the transformation the world goes through, world in which we operate and in which we send students may be educated in a weak or little aware, enthusiast or productive way.

In any case, it is a fact that, having to face these doubts, most of European colleagues have underlined, from time to time, how it is just the strength of this rich methodological and technical apparatus supporting the analytical-diagnostic stage of many of our restoration’s interventions, the essential contribution that Italy has given (and knows how to give) to the European conservation’s culture. We need to acknowledge this and make what others recognize us more and more and better correspondent to our actual didactic and scientific work.

### **Today’s’ reasons of conservation**

After two centuries of debate - deeply and completely aroused in the Western World or - even better - to be considered merely European, with the appearing and progressive consolidation of the opposite polarities of conservation and restoration up until the slow, but now ever consolidated expansion’s process, “for kind, epoch of formation, for



extension and quality”, of the objects subjected to tutorship – we are now accustomed to think an all in all known universe of subjects, though expanding progressively.

Yet there are always new facets that can always make explode or implode our world of fragile certainties.

Amnon Baror, from Israel, has just reminded this, telling us about his fatigue and disillusion while working in those troubled land, where to conserve can mean to have to deal, not just and not as much, with the technical or theoretical alternatives within we often limit our work, but with wider horizons of sense and, in particular, with the problem of coexistence between peoples which are fighting, each living and interpreting the environment and its depots of signs and historic tracks in very hostile ways.

We conserve for a future world of civilization, cohabitation and sharing of memories, values and potential of future life, otherwise why should we do it?

We cannot just ignore such questions, pretending they concern exclusively political assets not regarding us or our possibility of acting, as we are responsible of “jewels” which we debate on their value but that certainly belong to a world of consolidated peace, for which these questions seem to have no meaning at all or have been already solved by fights that have aroused in ancient times.

Things are not exactly like this, neither for us European and it is plain to see we have to acknowledge the fact.

Loughlin Kelly has also reminded how, in Ireland, the restoration of catholic churches become protestant in time, abandoned and today reclaimed by Catholics, becomes a case in which technical choices have surely one role, but not because they are the real and autonomous protagonists of the problem. And this, being able to see through the curtains of unawareness and approximation, can concern also buildings of our “Bel Paese”, or, of other civilized European countries, not only those in the Balkan or more or less Near East areas, perennially at risk because of the many conflicts and radical contrapositions affecting them.

These and many other themes have featured Genoa’s workshop. There are others to be added for the constitution of the thematic network on Conservation/Restoration, for the European Schools of Architecture to be active protagonists in it. It only depends on each one of us.



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**Method, Procedures, Protocols**

Method. It is well known that this word keeps going around and around through the different fields of the scientific research and technical production. But we are also aware that it is often used in an inappropriate way. What I mean is that sometimes a “method” is called down like it was a kind of lightning-rod: where there is a method it seems there is certainty or, at least, we are confident that results are guaranteed. The word “method”, in some way, recalls the strictness of science, lends an apparent sort of objectivity to results, keeps us safe from possible mistakes or false steps and, therefore, eventual confutations. Nonetheless, if you look right through the point, method becomes sometimes a *post-formulated* theoretical construction, one tries to apply to procedures built more or less arbitrarily. Method may unfortunately become a windscreen that covers personal choices, contingent tastes, and humours of the imagination.

As regards restoration, what we focused on is even truer. Furthermore, it is right here that the use of this word is strictly connected to the particular complexity of this discipline.

Let us begin by recalling that, as regards its operative aspects, restoration is articulated on at least three levels, a well known matter that here is useful to recall briefly.

First level stands on the analytical stage, regarding the whole lot of inquiries that must be done to let us better “know” the object of our interest. The required activities, in this case, can involve both natural and “spiritual” sciences. Mathematical-geometrical, chemical, physics and biological analyses belong to the first group, while historical and archaeological analysis belongs to the second group. It is easy to understand that this is a rough separation, because both fields overlap and run through human and natural sciences in many ways.

Second operative level includes the purely creative and projective work, which does not have to be much connected with historical or natural sciences, because it regards activities connected merely with decision and, therefore, with a volition from the projector. In this case, each actor may adopt different solutions even starting from the same base of knowledge of the object and, consequently, the possible choices are innumerable and undetermined.

Third level is about the accomplishment of the project and the operations that must be executed in the yard. In this radius, procedures seem to belong prevalently to the universe of technology, even if in this case, the technical action is often subjected to the skill and sensitiveness of the agent and, of course, to the basements and scientific ascertainment of the processes.

Now, here is the question to be raised: is it possible to govern this kind of actions through a method? Or through a repertory of methods?

Let me point out that this is not an obvious question and I am convinced we ought to seek for an answer. This duty is unavoidable not only if we want to brighten our way of working in restoration, but also fundamental to see through our own didactical commitment: to understand, in a word, “what” and “how” we have to teach. As a matter of fact, we cannot ignore that the goal of education is a correct and complete imprinting for the future operators and that we are committed with a responsibility that we cannot underestimate. The decline of education in European universities, and we can see it in the restoration branch too, is tightly connected to this form of “distraction” with which we look at the didactical issue and its methods.

It is peculiar, by the way, that the term “Methodology”, currently used especially in the medical field, it is certainly referred to the application of a method and to the way it is applied, but it also defines the particular kind of pedagogy that is generally treating a method of teaching.

If we are here to take in examination of the problems as regards didactics, we should ask ourselves *what* and *how* to teach in restoration, well knowing that this necessarily involves *what* and *how* to restore. Therefore, the answer to the previous question is to be found on the significance of the word “method”, or at least on what we mean to say by using this word.

In the accepted meaning - the one taken from the dictionary - method is the way, the procedure that one follows to reach a goal, to develop a certain cognitive activity on a pre-established and controllable order. We can call it a “research process governed by established rules”

But what kind of activities are we talking about?

Latin people used *methodus* and in ancient Greek the word was *methòdos*, “going forward to research, to investigate”. Therefore, *methòdos* was “the path or the way for investigating”.

Researching and investigating. These are the objectives of a method. And it is not just a simple etymological game, because the whole literature regarding the subject insists on this specific turning point about the method: it is essential, in first place, to guide the whole cognitive path. In this path we can recognize two possibilities, two ways of operating: the inductive one, which from data tends to formulate concepts and general laws, and the deductive one that is bound from concepts to concepts and from laws to laws. In the concept of method we also use to distinguish analysis, capable to tell the principles from the consequences, and synthesis, moving from the principles towards the consequences that can arise.

Nicola Abbagnano warned us that this term is meant in two different manners: a) as research or research orientation (Hegelian Method, Dialectical Method, Geometrical Method, etcetera) and b) as a particular research technique (Syllogistical Method, Residue Analytical Method and so on).

But the core of each method is intrinsical to its general meaning: the Method is essentially a cognitive process. From Aristotle to Bacon, Galileo, Hume, Kant, Hegel this word has always been used in this accepted meaning.

In the scientific field, we are particularly interested in the past and present use of this word in Medicine. This discipline is certainly the most advocated by restoration agents, in which they often find, not wrongly, a certain similarity with restoration. This analogy, though, can play tricks on us because it relates to just two of the operative stages which we touched upon in the beginning of these notes: the analytical stage and the technical executive stage.

Nevertheless, this comparison can be useful for other reasons, as Medicine expresses, perhaps more dramatically than other disciplines, the crucial transfer of “the method” from the merely scientific-gnoseologic field to the technical processes. We know that this transfer had its beginning in the Seventeenth Century, when the strategic functions of a method, applied to philosophical and scientific inquiries, gained a “tactical” value in order to control the productive and executive processes. The efficacy of the cognitive action guaranteed by the method has been, from that moment on, more and more extended and sophisticated as regards developing merely technical

activities, to the point that science and technique had established a strong alliance, destined to strengthen.

Now, it is exactly in Medicine that methods belonging to scientific research would inform those belonging to the technical application, contributing to establish a strongly controlled system of patterns and “protocols”. There are quite a few examples of applicative protocols: from surgery in autopsy to the rules applied for the application tests in pharmacological products, from the procedures for clinical exams to those helping to formulate diagnoses.

Here we stand in front of a progressive dilatation of methodology from the strictly scientific and gnoseologic field towards the technical-applicative one.

In this regards, it seems that restoration can find in Medicine a useful model to organize both cognitive actions preceding the intervention and the application on the same intervention.

Can a method be extended to the creative enterprises? To those enterprises which according to Benedetto Croce are those of a genius? Is the existence of a method to compose poetry or a musical piece conceivable? Or to project quality architecture or a restoration?

In one of his *“Three essays on poetry”*, Edgar Allan Poe describes minutely all the work displayed to check, refine, sharpen the composition of the Crawl, but he would not tell us about the creative impulse and he would not tell us where and how the idea was born. He would not unveil any method. Neither any architect would show and tell his opera by speaking of a method. He would describe the passions, suggestions and intentions of his research, maybe by showing the coherence of the critical sources during his composition’s path, but certainly not restricting the whole significance of his work by claiming the adoption of a method.

This is surely true also for restoration. As a matter of fact, if the answer to the previous questions would be affirmative, one should deduce that, once the introductory inquiries are made on an opera due to be restored, the results of restoration would be univocally determined. But we know that this does not happen. If I assume a building as an object of restoration and I put all available inquiries about it at disposal, it is not sure at all that the different agents in charge of the project would jump to the same conclusions.

It is different, on another premise, if a method regards preliminary inquiries and the executive stages of the project. If I give to different groups the goal to make a 1/100 scale drawing of a building, or to recognize a material from laboratory analysis or, even more, to apply a consolidator on a stone surface, I could consider the fact that a method is used so that the results would have to be identical or, at least, very similar. The building’s plant, in the different versions produced by various groups, would have to be the same as regards their dimensions and disposition of the single parts. If there are differences, that means someone has made some mistakes and has not followed rigorously the prescribed procedures. This is also true regarding laboratory analysis: the recognized material would have to be the same for all. And of course the same as regards the application of the consolidator.

Thus, it is very odd that in the teachings and activities regarding restoration, everybody is anxious to evoke the Method, only to find out that the parts which are more lacking of a method, frequently, are those about the technical aspects of the discipline. Even the tender technical specifications, which should provide detailed and

rigorous information about the way the works should be executed, are often approximate and incomplete, when not downright incorrect or misleading.

The most obvious conclusion regarding these subjects is that there can exist methods for developing analytical and executive activities in restoration, but it is not possible to think of a method for the restoration itself. And this is true also for education: it is possible to teach a method or some methods for inquiring or controlling works in a yard (curiously this happens very seldom), but a method for projecting cannot be taught (even if this happens all the time by selling out as a method what it is merely ideology or, in the best options, an ethic principle or a general theory).

What does this mean? Is a project impossible to be thought or is it just a product of improvisation or fancy?

One can answer those questions admitting that the projective path, just because of its indeterminateness, follows a different logic than the one that a method would, but not for this is less effective. That is because, as we stated before, each conceptual problem admits countless solutions and the core of the subject comes out, from the vertigo of the unfinished horizon of chances, by choosing a concretely tractable way, that means a path, surely not linear but at least controllable, which leads with a certain evidence to a result.

A result, indeed. But to reach for it, it is necessary to go through a set of choices that we are called to make in order to define a particular transit into the wide scenery of possibility. Each choice is made by a decision. The projector, therefore, finds himself in a quite peculiar position. He is the arbitrator but cannot allow himself to behave arbitrarily: It is his duty to respond of his own resolutions. Furthermore, because of indeterminacy, each choice is submitted to failure's risks and, it is easy to see, the project implies the practice of hazard.

In this way, the privilege of being the arbitrator brings forth the weight of responsibility, the obligations for an ethical behaviour.

Ethical duty means, among other things, that each project must be measured with the "why" of the actions, beside the "what" and the "how". Competence, responsibility and rigour are inescapable premises for the projective commitment and are necessary conditions for permitting its development: necessary but not necessarily sufficient.

Therefore, we can only hope to see a new horizon rising in the research and new considerations as regards education to deal with, if we mean to pursue a kind of formation capable to sustain the responsibilities and goals that we maintain as regards tutorship. But also, those parts of teaching regarding the technical issues of this discipline are to be widely considered and cannot be left to generalist issues or to the approximation that seem nowadays to be practiced in the Universities.





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**An Intercultural and Interdisciplinary  
Teaching Approach in Conservation**

## History



The RAYMOND LEMAIRE INTERNATIONAL CENTRE FOR CONSERVATION (RLICC) has been founded in 1976 by Prof. Dr. Raymond Lemaire (1921-1997) as part of the College of Europe in Brugge (Bruges), under the name of "Centre for the Conservation of historic Towns and Buildings". Prof. Lemaire, was one of the authors of the Charter of Venice, which established the doctrine for the conservation of architectural and urban heritage in 1961. He was also a notorious advisor to the European Union, the Council of Europe and UNESCO. He established the centre which took his name to strengthen interest in the preservation of cultural heritage worldwide through interdisciplinary training and to promote further reflection on the best possible integration of heritage in today's society for tomorrow's generations.

The centre was transferred to the Katholieke Universiteit Leuven in 1981, in the Faculty of Engineering, as a postgraduate program co-organised by the department of Architecture, Urbanism and Regional Planning and the department of Civil Engineering.

After the introduction of the Bologna Bachelor/Master structure at K.U. Leuven, the program became a post-initial master (master after master) Master of Conservation of Monuments and Sites (MCMS).

The Raymond Lemaire International Centre for Conservation has an international and multidisciplinary teaching staff and an international and multidisciplinary group of students.

Today more than 600 students graduated from the RLICC and many of them have leading positions in national or international heritage organisations, own a private consultancy office or work for public authorities in the field of conservation.

## Heritage conservation, diversity and development

About thirty years ago, architectural heritage was primarily understood as a single building or a building group of historical and architectural value, see the Charter of Venice (1964). The material evidence of *the monument* was valued most and was very much focused on in conservation and restoration projects. Today a more in depth approach is advocated which identifies various dimensions and aspects of the architectural heritage – the significances behind or within the material evidence of the past – as expressed e.g. in the Nara Document on Authenticity (1994) or the Declaration of San Antonio (1996). Evaluation of heritage has evolved towards the acceptance of a greater diversity of values. Consequently, there are many more ways of dealing with preservation. Increasingly, different cultures and societies develop a local cultural as-

assessment and preservation policy in a way that cannot be generalized or cannot be universally applied, even in case this local heritage is also recognised as being of universal value, as in World Heritage sites. This places the heritage preservation field at the centre of the world-wide debate on globalisation and indeed necessitates a multi-cultural, intercultural training of future heritage preservationists.

Valuable monuments, sites and landscapes are being threatened increasingly by large-scale or uncontrolled developments of the built environment, not taking into account in any way their established and potential assets for the future development of that built environment. Is our architectural heritage becoming marginal or even irrelevant as to the production of our built environment? The answer is indeed no, if at least we manage to convince society – and its policy-makers – of these values of historical buildings, sites and landscapes; and if we manage then to integrate these valuable monuments, sites and landscapes as essential elements of fundamental significance into the overall built environment unavoidably in constant development, physical and cultural. This asks for a radical integration of heritage preservation policies and practices into the overall architectural and urban development and environmental planning practices and policies, of course without losing – as preservationists – one's proper responsibilities, insights, aims, methods and techniques and this indeed necessitates a multidisciplinary, interdisciplinary training of future heritage preservationists.

## **RLICC programme**

The MCMS is an English taught four-semester, research-based academic degree, spread over two years. It has a unique profile by offering a quite generalistic multidisciplinary introduction to conservation in the first year, whereas in the second year students deepen a conservation subject related to their initial discipline but now seen through the broad perspective they have acquired during their first year. The first academic year is primarily devoted to theoretical courses, seminars and case studies, and to project work. Up to 30 international experts are invited to the programme each year. The second year consists mainly of the master's thesis, i.e. individual research work in the field of conservation, supported by an ad hoc study programme. The programme is developed and continuously updated in close collaboration with international organisations, such as the UNESCO World Heritage Centre, World Monument Fund, The Getty Conservation Institute, University of Aachen (RWTH).

### *First year*

The first year offers a general introduction to the field of the conservation and restoration of monuments and sites. It is primarily devoted to theoretical courses, seminars and project work. This year is spent in Leuven at the University. The programme is divided into 6 thematic modules: [ECTS credits/hours].

1. Conservation of the architectural heritage: history, theory and practice [11/104,0h]
2. Conservation of urban sites and landscapes: history, theory and practice [11/104,0h]
3. Analysing, registration and documentation techniques [8/65,0h]



4. Building materials and conservation techniques [11/65,0h]
5. Conservation policies [7/26,0h]
6. Integrated project work, trips and visits to construction sites, workshops and institutions [12/477,5h]

### *Second year*

The second year is devoted to individual work, is not necessarily spent in Leuven. Most of the second-year students work at home or abroad. The possibility of combining professional activity with thesis work also exists.

1. Professional internship [15/82,0h]
2. Optional activities in the field of conservation [5/26,0h]
3. Research seminars [5/26,0h]
4. Paper on selected conservation topics [5/26,0h]
5. Master thesis [30/658,5h]

A fully detailed program and courses descriptions:

[http://www.kuleuven.be/onderwijs/aanbod/opleidingen/E/SC\\_50269217.htm](http://www.kuleuven.be/onderwijs/aanbod/opleidingen/E/SC_50269217.htm)

Education and thesis research benefits from the research carried out at the Centre. Also the international network facilitates access for research and internships to be carried out in institutes at various places in the world.. Some students make their thesis within ongoing research projects at the Centre.

Considering the high level of the master thesis works, some students choose to continue this research into a shortened PhD research program at the Centre or at another University.

### **Research at the RLICC**

The expertise at the Raymond Lemaire Centre for conservation has been developed through more than 15 years of research carried out at the Centre. PhD have been dealing with "The use of three-dimensional techniques of documentation and dissemination in studying built heritage" and with development of strategies for the conservation of archaeological ruins.

Earlier PhD work has been dealing with material research and structural issues related to conservation of the built fabric. Various research projects have been deal-

ing with the above mentioned expertise, sometimes related to specific archaeological sites as was the case in Sagalassos (Turkey); Jebley (Syria) or Bousu (Belgium). Some projects were overarching as was the case for the 7 years collaboration project with the Instituto Nacional dell Patrimonio Cultural in Ecuador (the Ecuabel project) that included various aspects of heritage preservation including museology, archaeology, architecture, conservation of archives and mural paintings.

*RecorDIM*: 2004 – 2007 Partner of the Recording, Documentation and Information Management (RecorDIM) Initiative. <http://extranet.getty.edu/gci/recordim>

*UNESCO World Heritage Centre's IS capacity*: 2004: collaboration with the UNESCO World Heritage Centre's Development of a World Heritage Information Management capacity in the Arab States (<http://whc.unesco.org/en/activities/58/> last reviewed 09/05/2007)

*SPRECOMAH*: 2006-2008: SPRECOMAH: Seminars on preventive conservation and monitoring of the architectural heritage, European Commission, Environment, 6th FP, Integrating and strengthening the European Research Area, Policy support and anticipating scientific and technological needs ([www.sprecomah.eu](http://www.sprecomah.eu)).

*Scanning of RAMSES II (Cairo, Egypt)*: 2004: Scanning of Ramses II (Cairo, Egypt) in partnership with Plowman and Craven, University of California Berkeley and Tariq al-Murri consultancy.

*STOA Project*: 2001: Technological requirements for solutions in the conservation and protection of historic monuments and archaeological remains (STOA Project 2000/13-CULT/04), report for the European Parliament, co-ordinated. by M. Cassar (University College London).

## Info

[http://sprecomah.eu/rlicc//index.php?option=com\\_frontpage&Itemid=1](http://sprecomah.eu/rlicc//index.php?option=com_frontpage&Itemid=1)

<http://www.asro.kuleuven.be/rlicc>

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# Session 1

*What and Why?*





Keynote Lecture by

**Loughlin Kealy**

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**Teaching / Thinking / Learning / Doing  
Conservation and Creativity  
in Architectural Education**

## Introduction: Teaching Vs Learning

A characteristic question for EAAE-ENHSA workshops is “What do we teach?” I try to put the question – “what do we want students to learn?” However, students are not necessarily learning what we think we are teaching. I am referring here to a concept developed by Gregory Bateson in his book *Steps to an Ecology of Mind*. Called “deutero-learning” – a kind of second order learning that develops the ability to become skillful at solving problems<sup>1</sup>. It depends on our minds being able to associate certain types of relationships and contexts, much as expertise in learning how to do crossword puzzles is built up over time – “learning to learn”. Bateson points out that the effect of our learning activities is to develop “habits of thought” and that these have profound influence on our abilities to understand the world and to act appropriately. In many ways the purpose of education is to inculcate habits of thought in students, habits that help them to become effective operatives in particular areas of society. But the matter goes beyond that. One of the criticisms of specialised education is that the habits of thought relate to a very narrow spectrum – to very confined understanding of the fields of action and their relationships to wider contexts. I want to return to that idea later on, considering it in the context of the relationship between teaching conservation/restoration and the field of architectural education. But in the meantime I should explain briefly the academic context for my comments.

I teach in a small school of architecture. Architecture is one of three disciplines in the academic unit along with Landscape Architecture and Civil Engineering at University College Dublin. Our basic programme in Architecture extends over five years, and for the time being it is treated as an undergraduate programme leading to a professional degree. We have about 300 students in the five-year programme. Then, after at least two years of supervised professional experience, those who wish to enter architectural practice must pass an examination in professional practice and practical experience. The programme here has over 100 students attending.

The five-year programme does not have a course that is called “conservation”. However, we teach a subject called “Ecology of Architecture” – it is an area in which we reflect on the experience of the built environment. We draw on the fields of environmental psychology to deal with perception; we consider the role of the senses, touch, sound, smell, as well as vision, from the perspective of how they lead to an understanding of the built environment. In that context also, we introduce issues of “sustainability”, including the re-use of historic buildings. This allows us to deal with the fact that our perceptions and value systems are intimately connected with how we act – the connection between ideas and technologies through which we, as architects, intervene to shape the future. Later in the programme there is a subject called “Design Technologies”. Within that subject students may choose to study the use of materials in historic buildings, the decay mechanisms that affect them, and the implications for intervention.

Conservation is taught as one of a range of specialist post-professional degree programmes. The range includes urban design, history and theory of architecture and designed landscapes and it is conducted in a framework that is research-based, and geared towards doctoral-level studies. About 40/45 students are registered for these

areas of study. For many years, as well being Head of Architecture, I have directed the specialist programme in conservation

## **Disjunctions and Connections**

The dominant emphasis in architectural education is on architecture as a cultural practice, with a strong emphasis on development of creative engagement as a foundation for professional life. Can we connect: create an intellectual framework for conservation/restoration that animates the creative?

When we are thinking about how conservation/restoration fits within architectural education, we should ask ourselves why architecture and conservation seem so often to be poor neighbours – the often problematic relationship between building for today and the protection of the architectural heritage spills into the academic structures that support these concerns. It is possible to find oneself caught in a kind of dualistic trap so that it becomes difficult to think beyond the obvious conflicts. For this reason, when, in the context of an academic discussion about the future, conservationists must not just think in terms of the future of education and training in respect to conservation/restoration. It is essential that the question is asked about the contribution that conservation/restoration can make to the ability of architecture to address the future.

But before developing this argument further, I want to comment on the implications for this relationship, of the conceptual advances within conservation/restoration. When we look back over the past century, we can measure the advance by referring to the progressive elaboration of concepts within the conservation charters: the Venice Charter, with its codification of the concept of “monument”; the Washington Charter with its elaboration of the concept of monument from the perspective of how it applies to historic towns and urban areas; the shift in perspective embodied in the Australian Burra Charter, and the deepening of understanding evident in the dialogue between the Nara Declaration and the San Antonio document. Behind these, stand the reflections on experience that takes into account our increasing awareness of the diversity of cultural heritage and the debate has moved to consider complex questions regarding “globalisation of values/perceptions and the meaning of concepts of “integrity” and “authenticity” as they apply in disparate cultures.

One can see advance over time from a different perspective also: in the 20th century conservation has dealt with issues arising from industrialisation, the impact of world wars, regional and civil wars in which cultural heritage has been a psychological target, post-colonial experiences, and now the inter-penetration of sustainability and globalisation. At another level, part of the progress that has been made is that conservation/restoration is part of mainstream architectural practice and the requirements for inter-disciplinary collaboration are broadly accepted. The increased significance of conservation/ restoration within architectural practice has led to the development of systems of specialist accreditation in my own country as in others. In the UK such specialist accreditation is linked to grant aid from state organisations for conservation projects.

But at another level one can ask the question: has the advance of conservation/restoration halted at the margins of architecture? Architectural intervention in existing buildings over the centuries to create new cultural monuments remains outside architectural history and the theory that has developed on the basis of reflection and experience is not yet part of architectural theory. Histories are constructed out of certain understandings- as David Dunster has put it, as well as there being histories of architecture there are architectures of history. For conservation/restoration to find a place at this level will require a new level of scholarship and of engagement with the creative impulse that has defined the development of architecture over the centuries.

This disjunction suggests that while conservation/restoration is part of the contemporary architectural *problematique* – part of the redefinition of architecture and the practice of architecture that is underway under the social, technological and cultural transformations of our time - it is not seen to be central to the pedagogy of architectural education. I will return to these transformations at the conclusion of this essay. For the moment we might note that while, in the world of action inter-disciplinary collaboration is a reality, in the intellectual world represented by university structures and research orientation, inter-disciplinary collaboration is an orphanage for the unwanted. I believe that there is an epistemological basis for the disjunction – this polarity - between conservation and architectural creativity, and that we need to address this in the interests of producing a humane environment for the future.

### **Polarities and mirror images**

The polarity is vividly expressed by Bernard Tschumi, one of the leading European architects and theorists of the past decade<sup>2</sup>. He describes the historical and philosophical dilemma of architecture as a discipline poised between two goals of aesthetic experience; on the one hand that of maintaining the experience of de-familiarisation ‘- let’s say, a form of “art”’, and on the other that of its opposite, maintaining familiarisation, security, *Geborgenheit*. Tschumi elaborates:

Here, of course one recognises the constant opposition between those who see architecture and our cities as places of experience and experiment, as reflections of contemporary society ..... and those that see the role of architecture as re-familiarization, contextualization, insertion.

This is a statement of the classic dilemma of the architect as creative artist - a dilemma that stems from the particular understanding of the role of the creative artist that has animated modern movements in art and architecture, since the late nineteenth century. “Creativity” has meant supercedence and ultimately destruction of the old, and the cycle of creativity and destruction represented the essence of progress. In a metaphysical sense, artistic endeavor became a metaphor for the human condition as envisaged by Nietzsche<sup>3</sup>.

This understanding of creative action is also connected to the idea that human progress is achieved through competition/ struggle/dialectic rather than through organic development. There is a contrary view that maintains the legitimate role of the

artist to be the expression of the values of the community, from a position embedded within it. A version of this polarity is given in Lozano's depiction of opposing traditions in community design; the popular/local tradition generated from experience and knowledge, as against the professional tradition, which emerged after the industrial revolution<sup>4</sup>.

The sequence of high-culture design, styles and typologies is one of cyclical breaks with the status quo and innovations rather than of smooth improvements. New 'solutions' are incorporated as fast as individual designers can develop them. The professional tradition places relatively less emphasis on the evaluative stage, and fewer experiences are transmitted from one work to the next.....professionally designed environments are organised according to abstract rules or laws of composition.....tend to be differentiated from the surrounding urban patterns".

In his view, design solutions, deriving from the professional tradition, aim at achieving masterpieces, seek uniqueness and innovation, and are animated by the desire for prestige. The resulting work stands out from its context. In contrast, popular designers operate according to morphological determinants, improving on the problems, activities, access, topography, climate and resources.

The risk of being caught by this kind of polarization is clear enough: Lozano can assert that "popular designers are cultural agents", thus suggesting that designers in the professional tradition are not. Is it fair to ask which of these two polarities most resembles the image that architectural conservation has of itself?

In architectural education the design project dominates and other elements of the curriculum – representing areas of specific knowledge that students need to acquire – often struggle for hearts and minds. Conservation/restoration, as well as being value-based, is also knowledge-based and from that perspective has much in common with these areas of architectural curricula. There is tension within the heart of architectural education – the tension between education geared towards professional practice and education geared towards architecture as cultural practice. I believe this tension to be a positive opportunity, and that, as schools try to re-balance themselves, there will be new opportunities for conservation/restoration to achieve its place in the heart of architectural education. But first, it is worth reflecting on a wider context for the disjunction.

In the broader picture, while the development in theory and practice in the field of conservation cannot be denied, that success can have mixed results. One of the defining difficulties of post-industrialised societies is the fragmentation of knowledge into discrete silos and the speed of information transfer within the specific silo. Applying specialist knowledge within professional areas has to overcome the tendency for it not to percolate to the point where it informs early strategic decisions. When we ask the question about the contribution that conservation/restoration can make to the ability of architecture to address the future, we are also saying that talking to ourselves is unlikely to develop dialogue to any useful extent. However successful we are within

our own terms, however far we develop our techniques and refine our ideas, the issue of communicating beyond the boundary still remains. One could suspect that failure to see the wider context, to jump over the fence intellectually in favor of cultivating our own garden will be self-defeating in the longer term. Self-referential success may eat its young - we need to find ways of moving beyond these polarities of self-reference, ignorance and low esteem.

## Some questions

Just for a moment we should ask ourselves some questions; from the side of conservation we can ask what has conservation/restoration to offer teaching in architecture? We can immediately refer to the cultivation of observation, "seeing", recording, analyzing; the emphasis on materiality; the essential, inter-disciplinary focus, and the sense of history becomes part of the present. From the side of architecture we can ask what has architecture to offer teaching in conservation/restoration? At once we are struck by its future-orientated focus, problem-solving, development of spatial acuity and space-forming ability, ability to shift scale, concern with tectonics and with the building as an organism. Perhaps these questions are primitive or naïve. It is always an option to do nothing – to be wise, to keep one's head below the parapet. But it is not so much a matter of arguing that there is more to be gained by re-orientation. For me, eliminating this disjunction is both a practical and conceptual necessity.

There are already ways of opening the door/ jumping over the fence. This workshop on conservation/restoration arises out of an EAAE-ENHSA network on conservation. The network is one of several and they offer an immediate opportunity to take some steps in the right direction. For example: in the workshops on Architectural Design, one could look at the design issues in the re-use of historic buildings; in the workshops on Urban Design one could include projects on dealing with the morphological inheritance of towns and cities; the Construction network meetings would, I am sure, welcome contributions on teaching repair techniques, consolidation and structural stabilisation; and in the Theory workshops, the explorations of "authenticity" and "significance" that take place within conservation, would find a home. Conservation/restoration can take a lead – what do you think?

"Think globally; act locally" is a slogan used in promoting an ecological approach to living. So far I have been writing about the need for us, as conservationists, to act to bridge the gap – to act locally, as it were. It is however even more important that we take a wider perspective as well – that we see ourselves as being relevant to the issues of today and that we present ourselves as having something useful to say. There is a compelling agenda set by transformations occurring in our civilisation, day by day. I will mention just four to illustrate what mean.

territorial      The past half century has seen an escalating transformation of settlement patterns: the development of the megacity and the emergence of the urbanised territory. Only recently have the issues of habitation, globalised development and sustainability begun to be seen in juxtaposition. Conservation has begun the task of examining how its concepts

- extend to landscapes of cultural significance, and to apply those concepts to urbanised areas, contemporary as well as historical.
- ecological Issues of ecological stability have begun to make themselves felt in architectural education. There an increased focus on designing to improve building performance. Conservation must continue to explore the introduction of renewable energy sources in historic buildings and most particularly where buildings are being adapted for new uses
  - humanistic Our awareness of human rights extends to issues of access to knowledge as well as to economic opportunity. Conservation, as well as having to grapple with the issue of universal access to historic buildings and areas, is centrally concerned with issues of environmental justice and particularly with inter-generational justice – with protecting the cultural inheritance of future generations
  - conceptual All aspects of life experience the impact of the digital revolution, particularly as it impacts on access to information and the media. Conservation/restoration has to engage with the question of how this revolution affects our sense of time and history and with ideas concerning cultural identity in a globalising world.

Scholarly reflection on these and similar issues within the field of conservation has much to offer beyond its own constituency. Within the discipline of architecture there are many outstanding academics and practitioners actively engaged in these issues. These issues already impact the minds of students. Addressing them within the field of conservation studies will help provide a re-orientation for our own discipline. If we can do that we will find ourselves leading a broader discussion of the place of architecture, past and present, and of the place of human culture, within the emerging ecology of the planet and its peoples.

### **And so, to conclude**

The polarities in the understanding of architecture and the place of conservation offers us a choice between transcendence and marginality. Dialectics are good for argument, but actions based on dialectical understandings have a habit of going badly wrong. Creativity does not have to be defined in Nietzschean terms of destructive creation/ creative destruction.

At the beginning of this essay I referred to Gregory Bateson and his ideas about learning. He wrote about the development of “habits of mind” - deeply engrained ways of thinking that become the armature for our ideas about the world. One of the most important of these “habits” in Bateson’s view is that of separating our purposes from the methods we use to achieve them – in abstract terms we separate “means” from “ends”. Going further, we prioritise “ends” above “means”. The result is that we develop an “instrumental view of reality” – one in which the world is subjected to our purposes. At this time we are beginning to understand that the instrumental view does not work for ever: that systems need to achieve balance and that the new balance that the planet achieves may not include the products of our civilisations. Bateson’s thinking is that ideas are instruments. The ideas that we have developed over centuries allowed us to

make the world subject to our understanding of it. The impending consequences tell us that those ideas were not adequate when dealing with very complex systems. In a fundamental way, ideas are the major human contribution to world ecology.

I believe that ideas about ourselves (as conservationists) are also instruments and that these instruments shape the way we think as well as what we do. We propagate these ideas by reference to our role in defending the cultural inheritance of the past, and we are uneasy with the idea of creativity in the context of action on historic monuments – not without reason. But creativity takes many forms and one can argue that no conservation action is possible without a creative act. We have to ask ourselves whether our ideas about ourselves are adequate for today. I believe that if conservation/restoration is to take its rightful place within the culture of architecture, then we, as conservationists, have to situate our discussions within the larger debates stimulated by the transformations of our times. As conservationists devoted to transmitting this inheritance we need to embrace the future and embrace creativity. By doing so we can reclaim a place within the core of architecture and in turn, contribute to the ability of architecture to shape the the material culture of the future.

The mathematician Francisco Varela, when asked about why, given that the world now knows a great deal about the operation of complex ecological systems, we are still so slow to take appropriate action, replied that one had to have “the being adequate to the understanding”.

#### Notes and references

1. Bateson, Gregory. *Steps to an Ecology of Mind*. Paladin, NY. 1973
2. Tschumi derives this dichotomy from Walter Benjamin's discussion of the reproducibility of images and his conclusion that, since reproducibility reduced their “aura”, the only thing that made them memorable was their “shock” value, the surprise factor.  
a+u Architecture and Urbanism. March 1994. Special Issue: Bernard Tschumi
3. David Harvey, in his account of the emergence of modernism in early 20th century, provides an insight into the process whereby art and architecture created distance between themselves and the wider society in which they operated. Within the framework of economic development and changes in the nature of patronage, artistic endeavor within modernism operated in a commercial ambience, which generated a commodification of creative production. This in turn resulted in the emergence of the idea of the avant-garde - the nature of creative work was now to explore the boundaries of art, and in the process, the boundaries of perception also. In Harvey's description, modernism represented the transformation of the pre-eminence of knowledge into the pre-eminence of creative action, and novelty and innovation acquired the highest value. See Harvey, David. *The Condition of Postmodernity*. Oxford 1989. Chapter 2. Modernity and Modernism. pp10-38.
4. Lozano, Eduardo E. *Community Design and the Culture of Cities*. Chapter 2. Traditions in Community Design. pp12-23.



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**L' Architecte pour la Restauration:  
Une Experience Didactique a Naples**

## A. La signification et la portée de l'enseignement de la Restauration

Un certain nombre des réformes caractérise les dernières décades en ayant le but de réorganiser les Universités italiennes et les Facultés d'Architecture aussi. Toutefois, il faut dire qu'aucune juste correspondance avec les développements de la culture de la Restauration et de la Conservation s'est vérifiée. Il est vrai que l'importance des apports qui provenait de la communauté scientifique n'ont pas été tenue en considération. De ce fait, la normative la plus récente prévoit, pour l'enseignement de la restauration de l'architecture, uniquement un nombre minimum de "crédits" que les cours doivent assurer dans le cadre des cours universitaires uniques (de cinq années) et des cours «magistrali». On peut affirmer, sans doute, que ce nombre le ressort très restreint. En effet l'expérience dans l'Université de Naples Federico II représente le résultat de l'application des directives ministérielles: l'enseignement de la Restauration architectural est présent dans les parcours des études soit du diplôme universitaire de premier et deuxième niveau (du système de 3+2 années), soit dans le cours universitaire quinquennale. Mais tout cela arrive avec une série de différenciations considérables qu'il n'est pas possible les approfondir dans ce contexte d'analyse.

Il est utile rappeler que la discipline de la Restauration caractérise particulièrement la formation de l'architecte européen, et davantage l'architecte italien parce que en Italie l'ensemble des interventions se vérifie sur les bâtiments historiques qui marquent si fortement le paysage urbain. D'autre part, la loi actuelle prévoit la présence de l'architecte dans les processus du projet et de la direction des travaux de restauration des monuments.

Après ces premières considérations, on va réfléchir sur les orientations et sur les contenus de la *Laurea Magistrale* en Architecture-Restauration qui se déroule dans la Faculté d'Architecture de Naples Federico II il y a trois années. Le parcours est bienal (après la maîtrise triennal) et permet de s'inscrire à l'Ordre professionnel des Architectes, et non à celui des Conservateurs. A ce propos, on remarque que la normative permet l'architecte-conservateur seulement "la diagnosi dei processi di degrado e dissesto dei beni architettonici e ambientali e la individuazione degli interventi e delle tecniche miranti alla loro conservazione" (d.P.R. 328 de 5/6/2001). Cela est vraiment très limitatif et tout à fait contraire au principe partagé par la plupart des enseignants italiens appartenants au secteur disciplinaire de la restauration: en fait il est bien reconnu que l'architecte-restaurateur doit avoir toute la capacité relative à concevoir le projet d'architecture et tout cela à travers une nécessaire formation que puisse conjuguer des connaissances soit techniques et soit humanistes. Il s'agit, donc, d'une figure professionnelle complexe qui ne craint pas des comparaisons avec les autres techniciens. L'architecte-restaurateur doit être capable d'élaborer un projet de nouvelle architecture, mais une intervention sur un bâtiment historique aussi; cela, comme il est très évident, est possible uniquement à travers la maîtrise des instruments théoriques, méthodologiques et pratiques et la capacité de gérer la coordination des composantes qui caractérisent une activité complexe et interdisciplinaire tel qu'est la Restauration de l'architecture.

En suivant ces objectifs, deux cours sont consacrées à la restauration dans les deux années du cours dont on y discute: le premier *Théories et méthodologie de la Restauration* ayant un caractère de formation de base; le second est constitué par le *Laboratoire de Restauration*, c'est-à-dire un cours qui prévoit l'élaboration d'un projet et qui

permet les élèves de mener à bien une étude multidisciplinaire pour l'intervention de conservation sur le bâtiment ancien.

De ce fait des enseignements tel que *Théorie et Histoire de la Restauration, Diagnostique et Consolidation, Stabilité des Constructions monumentales, Législation des biens culturels* sont introduites dans le cours de Théories et méthodologie de la Restauration; on peut bien noter qu'il s'agit de matières spécifiques de l'ICAR 19 et, même, des autres disciplines qui ont une liaison très fort avec la conservation et l'organisation du projet de restauration.

De la même façon, des enseignements fondamentales pour la formation sont prévues et mises à côté de la matière principal dans le *Laboratoire de Restauration* qui suivi: ils sont *Histoire de l'architecture, Projet architectural, Science et la Technique des constructions*.

Malheureusement l'articulation des cours, qu'est le résultat des raisonnements sur le caractère de la formation de cette figure professionnelle, n'est pas appliquée ni partagée dans les autres cours de maîtrise; et cela ni à Naples ni dans autres Facultés d'Architecture, où toute la formation de restauration est très réduite et confié uniquement à un cours de *Laboratoire de Restauration*, qui montre de n'avoir aucune base technique consistante. On saisi très bien qu'à cause de problèmes de nature diverse, les professeurs se trouvent obligés à enseigner de la théorie et de la pratique dans le même temps en ayant peu d'heures disponibles.

De plus, l'articulation en semestres n'apporte pas une bonne organisation des leçons qui, en se déroulant pendant trois ou quatre mois, rendront insatisfaisant le niveau atteinte des connaissances.

En un mot, si on a l'intention d'obtenir des résultats de formation qui soient véritablement positifs, vu le délai de temps disponible, on peut bien affirmer que le "modèle" napolitain qui a été jusqu'ici décrit pourrait être censé comme une très bonne référence.

A Naples la formation post-maîtrise a la possibilité de se compléter soit à travers l'École de Spécialisation en Restauration des Monuments, ayant le but de former exclusivement des professionnels, soit à travers le Doctorat en Conservation des Biens architecturaux suivi par ceux qui aspirent à la recherche scientifique.

Pour ce qui concerne les contenus disciplinaires, et notamment les Théories et Histoire de la Restauration, le sujet de la doctrine est analysé par B.G. Marino dans la relation suivante.

Cependant, il faudrait ajouter encore quelque mot à propos du cours de *Diagnostique et Consolidation*: dans la Faculté de Naples on donne beaucoup de place à l'approfondissement de la phase préliminaire du projet de la restauration, et de ce fait toutes les analyses propédeutiques sont étudiés au but d'avoir les instruments nécessaires pour bien choisir l'intervention à faire. Dans le «chantier de la connaissance» - comme souvent il est nommé - les techniques d'analyse sont, sans aucun doute, des moyens que la nouvelle technologie nous offre: mais il ne faut pas oublier que, dans le domaine de la conservation du patrimoine, la diagnostique ne doit être pas considérée comme un ensemble des résultats qui donennt facilement la compréhension de l'architecture, mais plutôt comme des connaissances que l'architecte doit intégrer à travers une vue globale du problème de la conservation. Donc, l'architecte même doit participer activement au projet d'échantillonnage et à la identification des enquêtes à faire et qui sont constitués, selon les différents cas, par des ultrasons, la thermogra-

phie, les scanners laser et toutes les autres appareils. Ces derniers peuvent fournir les informations utiles pour définir la stratification du bâtiment historique et pour connaître la consistance des matériaux qui gardent les valeurs à transmettre aux générations futures. Pareillement, la Consolidation exige une formation spécifique et des connaissances adéquates aussi. Il s'agit d'une matière qui est intégrée dans le processus de construction du projet de restauration et, en raison de ça, la consolidation ne peut pas être déléguées à des autres spécialistes tel quel les structuristes, bien qu'ils soient bien qualifiés. La restauration et la consolidation constituent deux côtés du même problème et elles doivent être conçues de telle sorte. L'importance de la Consolidation est beaucoup perçue en Italie: les effets naturels des séismes ont éprouvé les bâtiments historiques et la plupart du terroir est déclarée "zone sismique". L'architecte italien doit nécessairement connaître toutes les orientations et les décrets qui ont été formulé pendant les années par les commissions ministérielles et par la législation des travaux publics.

En synthèse, il faut souligner que la *Laurea Magistrale* en Architecture-Restauration a l'objectif de la formation d'un architecte généraliste (comme prévue par la directive NOUS 2005/36), mais notamment avec une formation spécifique dans le domaine de la restauration architecturale et urbaine. En tenant compte de tout ça, la formation devra viser à donner des connaissances qui soient d'aide pour gérer ces différents aspects du projet (de l'architecture à l'urbanisme) avec un regard attentif aux exigences sociales actuelles qui demandent forcément une conservation active et intégrée du patrimoine architectural et des sites.

Dans cet esprit on apprend aux élèves l'évolution moderne de la notion de conservation parce qu'elle s'est bien modifié pendant les années passé en passant de la signification de monument isolé et son entourage à celle de réputer les restes de la culture matérielle importantes avec particulière attention à la valeur anthropologique; de même façon la nécessité d'une vue globale qui concerne les centres historiques tel que l'opportunité de protéger l'architecture moderne et contemporaine constituent une partie connotative du cours.

Après avoir expliqué ces réflexions en relation au déroulement du secteur ICAR 19 dans la *Laurea Magistrale* en Architecture-Restauration, on souligne l'importance d'approfondir deux aspects du sujet. Le premier concerne le rapport entre la Restauration et le Projet architectural qui pose des questions très complexes en raison des "parties ajoutées". Il est évident que dans une action qui vise à conserver et valoriser un monument on saisi des problèmes liés à la nouveau «utilisation» du bâtiment (ré-utilisation), c'est-à-dire à l'adéquation de lui-même à nouvelles fonctions compatibles avec les caractères du bâtiment et aux exigences de la collectivité, comme l'art. 5 de la Charte de Venise justement reconnaît. Il faut dire que très souvent la pratique courante ne correspond pas aux orientations théoriques les plus averties. On peut justement noter que les parties ajoutées, dans la plupart des cas, montrent leur incompatibilité avec les valeurs et les caractères du bâtiment, bien que l'intervention soit haute de gamme et puisse être censé l'occasion d'un enrichissement de l'identité du monument et. En effet, les interventions contemporaines se révèlent évidemment des envahissements de l'image des monuments eux-mêmes, en ayant l'idée di réaliser un' «oeuvre» plus que une «restauration». Naturellement le résultat ne peut être que l'anéantissement des valeurs historiques et esthétiques. Il faut que l'architecte aie la conscience que son rôle est extrêmement décisif pour la survivance de l'identité du bâtiment. Nos élèves

doivent être mis au courant de cet état de choses: ils sont informés sur les projet qui interessent des bâtiments historiques dans tout le monde par des revues prestigieux mais qui ne touche vraiment pas l'essence de l'intervention en s'arrêtant trop souvent à l'«image». Il faut, par contre, apprendre les élèves que le processus du projet de restauration va bien au delà de l'utilisation des matériaux modernes ou des formes pour célébrer l'architecte lui-même. Il est aussi vrai que dans la société de l'image rien est de plus facile: les restaurations de pseudo-maîtres sont glorifiés comme chef-d'oeuvre, mais - on espère très tôt - le moment finira et le passage du "maître" sera rappelé comme un "malheur" pour le monument.

Il est clair que l'époque contemporaine a son langage et il faut qu'il s'exprime, mais l'éthique d'un architecte ne peut pas permettre qu'un langage puisse en détruire un autre.

L'autre côté qui devrait être ici souligné concerne le rapport entre les domaines disciplinaires de la Restauration et ceux de la Technologie de l'architecture: un rapport qui manifeste une totale dyscrasie lorsqu'on approche au problème de l'entretien des bâtiments historiques et notamment à l'interpretation de la dégradation.

Dans le cadre disciplinaire de la restauration le sujet de la "dégradation" est analysé et saisi de manière non univoque. En un mot, la dégradation peut être réputé symptôme de mauvaises phénoménologies qui concernent la matière, mais aussi elle est un signe du temps qui a modifié la matière esthétiquement parlant. De ce fait, il s'agit d'interpréter la dégradation avec ses valeurs historiques et esthétiques aussi, car l'architecture est un organisme en changement.

Ces aspects, sûrement complexes et problématiques, agissent sur l'architecte-restaurateur de point de vue culturel et scientifique; il mene à bien le projet en recueillant les données historiques, esthétique, psychologiques que le bâtiment possède. En synthèse, il y a des aspects matériels et immatériels exprimés par le patrimoine architectural qui demande d'être protégé et valorisé.

Après avoir souligné telles réflexions, il faut noter que les collègues "technologistes" ne montrent pas, dans la plupart des cas, la sensibilité due à l'entretien du monument parce qu'ils ne sont pas impliqués dans la considération des valeurs symboliques et esthétiques de l'architecture historique. On réalise des restaurations, des remplacements et, en quelque cas, des démolitions; les fondements de la culture historique et critique ne sont pas considérés.

En toute vérité, il faut comprendre que la pratique courante dans le champ des interventions sur les constructions historiques est inspirée à des critères d'épargne économique et de standardisation des interventions. Il est facile à saisir qu'en agissant avec l'objectif de s'opposer tout court à la dégradation on élimine systématiquement la possibilité d'approfondir l'essence vraie de la conservation et de la restauration.

Dans la sphère du patrimoine architectural n'est pas alors permis la "substitution" pure de l'élément constructif qui est par les technologistes considéré simplement "abîmé". D'autre part, il faudrait envisager que les problèmes que le restaurateur se pose ne sont pas en ligne avec les temps du chronoprogramme. Les raisons économiques prévalent et constituent l'orientation générale du secteur des bâtiments qui a la tendance à la préfabrication, à la standardisation et à respecter les exigences de soutenabilité malentendue.

En veulent étendre ce dernier *modus operandi* au milieu urbain, les interventions sont inspirés à des recompositions de l'image urbaine en appliquant critères d'hom-

généité, similarité et uniformité. Les conséquences sont opposés à la nature des sites en remplaçant ce que M. Dezzi Bardeschi a bien identifié comme "l'elogio della diversità anziché dell'analogia, come rispetto dello stratificato e dei segni del tempo"; les critères susdits coupent ce qu'on peut appeler « processo di accumulazione » stratigraphique. Les interventions contemporaines que se réalisent visent à des opérations de maquillage et c'est pourquoi que, malheureusement, beaucoup de centres historiques italiens (parmi lesquelles, Palerme, Naples et des autres villes importantes du centre-nord) sont en train de se faire ce traitement « cosmétique ».

Il faut aussi souligner qu'aujourd'hui les logiques d'investissement estiment la valeur immobilière à travers les attraits pour les investisseurs, comme par exemple, le décorum et l'esthétique des façades qui, si dégradés, baissent la valeur économique en éloignent les affaires financières. C'est pourquoi que plus les sites conservent ses caractères originaires et authentiques, moins le marché immobilier est dynamique et rentable.

De plus, en ce qui concerne l'entretien, malgré les références législatives qui obligent un programme d'entretien pour les bâtiments, il n'y a aucune véritable pratique de l'entretien; cela n'est pas vraiment concevable dans une nation culturellement et techniquement avancée dans le domaine des biens culturels. On souligne, donc, l'absence des programmes d'entretien et de sa activité de sondage; le rôle secondaire attribué à l'entretien; l'accès d'opérateurs non spécialisés au secteur de la restauration; la tendance prédominante aux interventions dictée par l'urgence pure qui favorise des oeuvres extraordinaires; l'incapacité de faire acquiescer à l'opinion publique l'importance de l'entretien qui est très souvent réduite à l'élargissement de facilitations fiscales; la vision de l'entretien comme un'opération très convenable pour des sponsors et pour les programmes politiques qui se posent le problème d'une bonne image à réaliser en peu de temps.

De toute manière, à côté des fautes qu'on a pu y expliquer, il existe une culture théorique de l'entretien appartenant au secteur disciplinaire de la technologie qui a structuré des méthodologies analytiques et procédurales dans ces dernières années. En somme, les "technologistes" ont la tendance à tenir le système en "efficacité", c'est-à-dire l'édifice qui marche à plein régime: on reconnaît les problématiques de "dégradation" et d' "obsolescence" du patrimoine architectural mais au but d'élaborer des "stratégies" qui en garantissent la "durée" qualitative dans le temps. En suivant ce dernier principe on arrive, par exemple, à la définition ISO de "qualité" comme correspondance aux « performances » des produits aux "qualités requises" et aux "demandes de l'usage", cette dernière est le destinataire seule des choix. Tout est finalisé à tenir en compte le caractère du "service" des bâtiments qui doit garantir à l'homme une vie utile, (service life), fiabilité, durabilité, inspectionnalité, complaisance, curabilité, adaptation, souplesse, bien-être de l'habitation et sûreté. La valeur de l'usage est prédominante: cependant, dans ce cas, la productivité fonctionnelle et économique de l'immeuble doit être assurée. Il faut dire que cette orientation, ainsi proche aux sociétés immobilières, est également très lointaine du domaine des biens historiques et architecturaux qui, à cause de leur identité, ne peuvent que déterminer des bénéfices sociaux.

En somme, la différence entre les deux perspectives - celle « technologiste » et celle de la conservation attentive aux valeurs historiques ainsi que de la matière - est facilement visible.

Dans le cours de la *Laurea Magistrale* en Architecture – Restauration on attire l'attention sur des qualités des édifices qui ne sont pas faciles à classer, à estimer; on parle de patrimoine et non de bâtiment.

Dans le cours de la *Laurea Magistrale* en Architecture – Restauration il faut apprendre les élèves la culture technique et la culture historique afin de ne pas interpréter l'architecture une chose qui est possible couper en tranches; c'est pourquoi l'objectif est de garder toutes les valeurs de l'architecture qui est partie intégrante des nos villes et de la vie de la communauté entière.





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**L' Architecte pour la Restauration:  
Une Experience Didactique a Naples**

## **A. La théorie de la conservation: tradition italienne de la formation dans le domaine européen**

Une récente et dernière reconnaissance de la compétence italienne dans le domaine de la restauration et de la conservation du patrimoine architecturale est constituée par la charge du projet d'entretien des grottes du site archéologique d'Ajanta, en Inde<sup>1</sup>; cela représente, sans doute, un des innombrables exemples de la renommée internationale de l'excellence tout à fait italienne dans ce domaine.

Cependant, dans l'état actuel, le moment historique caractérisé, d'une côté, par la formation in *feri* de la nouvelle organisation politique et, même, économique européenne, et de l'autre côté, dans notre contexte national, par la réforme de l'enseignement universitaire avec ses nouvelles classes de diplômés, nous porte (à partir du moment où nous sommes concernés soit comme intermédiaires, soit comme appartenant au corps académique) à mener à bien diverses réflexions.

Ces dernières, en tout cas, ne peuvent pas s'abstenir de tenir en considération quelques situations qui ne sont pas vraiment cohérentes dans un processus de formation de l'architecte-conservateur, c'est-à-dire d'une figure qui puisse avoir toutes les compétences pour opérer dans le domaine du patrimoine architectural et des sites historiques.

Toutefois, il faut reconnaître que cette opération d'analyse n'est pas simple: pour cela faire il est nécessaire avoir une vision globale des susdits processus de transformation et, dans le même temps, la capacité de saisir le décalage parmi les différents poids attribués aux diverses disciplines qui font partie des divers cours existants au sujet de la conservation.

En même temps – et cela donne une mesure de la délicatesse et de la complexité problème qui nous concerne –, on ne peut qu'enregistrer, au niveau international, le travail consacré à la fixation de la signification de la notion de «patrimoine».<sup>2</sup>

À ce propos, les distorsions possibles ne nous échappent pas lorsque la mise en œuvre des principes de la conservation du patrimoine concorde avec les opportunités politiques et économiques visant au renforcement de quelque identité nationale dans le contexte, tant bariolé que délicat, de l'Europe.

Dans le but de mener à bien un discours qui saisi vraiment les aspects de la formation de l'architecte-conservateur il est nécessaire de tenir dans la bonne considération ces flottements du concept de l'«objet» qu'on veut protéger et, encore, la connaissance des dynamiques dans lesquelles l'architecte se trouve à exercer sa tâche professionnelle.

Le contexte italien, du reste très semblable – mais avec les *distinquo* – aux autres réalités internationales, se montre caractérisé par une production architecturale qui est, d'un côté, le résultat des grandes charges aux architectes du *star system* international, de l'autre côté, à travers l'absence d'un véritable programme de changement des villes en relation aux exigences urgentes du parterre social. L'architecture à travers laquelle les bâtiments publics s'expriment est, très souvent, tout à fait standardisée et, même, sans aucune recherche architecturale.

Dans ce contexte, même s'il est approximatif mais sûrement correspondant, à grands traits, à la situation urbaine que nous apercevons, le démarrage d'une politique de la conservation vient de s'identifier souvent avec la mise en valeur de sites d'«excellence», tandis qu'on saisi la faute d'un processus qui concerne d'une manière

intégrée toute le tissu urbain et celle, plus large mais aussi méritant beaucoup d'attention, du paysage et de l'environnement culturel.

Il est donc assez évident qu'un programme attentif en ce qui concerne la formation ne peut se faire qu'en ayant très claire la notion de «patrimoine» et ses spécificités, en montrant fortement la nécessité de doter le *curriculum* d'étude d'un vigoureux cours qui contienne beaucoup de théorie et d'histoire de la conservation et de la restauration. Ce dernier, c'est clair, doit être entendu non seulement comme *excursus* historique des diverses théories qui dans le temps se sont déroulés, mais surtout comme un débat des thèmes internes à la discipline et même de la discussion des termes doctrinaux.

Ainsi que pour la production de la nouvelle architecture – comme réponse au mauvais panorama contemporain et à la pauvreté des questions épistémologiques par rapport à l'architecture – et de même que pour le projet des édifices et des sites historiques, l'interrogation et l'élaboration théoriques des principes constitue un prodrome positif et indéniable pour la gestion du domaine complexe de la conservation, juste pour les côtés relatifs à la *praxis*.

Les domaines du projet du nouveau et celui-ci de la restauration de l'architecture apparaissent comme deux sphères différentes seulement en premier ressort; en réalité ils constituent les mêmes domaines de réalisation d'une activité qui s'exprime à travers une réponse culturel avec la pleine conscience de toutes les données et des valeurs présentes et à relever.

D'autre part, dans l'esprit de tracer le système des contenues appropriés à la formation d'une figure professionnelle qui puisse marcher avec son temps – mais aussi dans le but de faire sortir notre discipline des difficultés dans lesquelles elle reste souvent emprisonnée – il est très utile de parcourir l'*iter* de la réorganisation des enseignements universitaires en relation avec la conservation et la restauration qui, dans les temps, s'est développées.

À niveau international, à Ravello, il'y a eu le *I Convegno internazionale dei docenti di restauro dei monumenti*, en 1975. On peut y retrouver l'analyse d'une situation compliquée et, encore, un nombre de professeurs de restauration des monuments vraiment réduit, pas seulement en comparaison avec le nombre actuel, mais aussi par rapport aux exigences de ce moment là, c'est-à-dire les années soixante-dix.

Cependant, ce qui est sûrement remarquable c'est la conviction – qui, d'autre part, intéresse le problème actuel après trente années – avec la quelle l'enseignement doit être interne aux Facultés d'Architecture<sup>3</sup> et, de plus, l'affirmation de l'organisation fondamentale pour former des techniciens et des figures professionnelles qui soient à côté de l'architecte-conservateur.

Mais, surtout en relation avec l'évolution du concept de «monument», il a été affirmé «la necessità di chiarimento, anche in sede didattica, dei fondamenti teoretici e storiografici e, quindi, della disciplina stessa del restauro e dei suoi confini, delle sue articolazioni, dei suoi rapporti con le altre discipline, per una consapevolezza, un confronto e un affinamento delle teorie, che, calate nella prassi, incidono nel vivo delle opere da tutelare (...)»;<sup>4</sup> et tout cela avec le souhait d'avoir un débat dans les temps.

Au niveau international, à la même période, la Déclaration d'Amsterdam attirait l'attention sur le problème de la formation en nous faisant remarquer dans quelle mesure, il y a trente années, le thème de la formation<sup>5</sup> très qualifiée était perçu, comme

juste par rapport aux exigences d'une gestion moderne et de mise en valeur du patrimoine architectural et culturel.

Il est assez clair que la notion de *conservation intégrée*, basée sur la coordination des différentes disciplines et des domaines concernés par les transformations du contexte urbain et du terroir, ne pouvait que souhaiter et prévoir la globalité soit pour les analyses d'étude, soit pour tout ce qui est en relation avec le projet et sa réalisation. Cette globalité, naturellement nécessaire au parcours de la formation,<sup>6</sup> est à mettre en relation avec cinq domaines disciplinaires: les disciplines historiques et critiques; celles de la représentation et de la communication; celles mathématiques, physiques et scientifiques; les disciplines techniques et la technologie; enfin celles relatives à la gestion, en comprenant, parmi celles-ci, les disciplines économiques, juridiques et de la sphère du projet. Les trois premières appartiennent au contexte de la *connaissance*, la quatrième est inhérente à la *conservation*, le dernière à la *fruition*.<sup>7</sup>

Il faut ajouter que le cadre de la formation démarré de cette manière n'est pas censé complet pour une pleine acquisition des moyens nécessaires à la réalisation des projets dans la conservation; il y a une phase successive qui se déroule dans les Ecoles de Spécialisation où l'opération d'approfondissement des divers domaines disciplinaires et mises à jour y relatives trouve sa place.

En 1981 le Vœu final de l'Assemblée Internationale de l'I.C.O.M.O.S. souligne qu'en plus de la nécessité que chaque Etat aie un centre de formation au niveau national et régional qui se coordonnent, le caractère inéluctable de la centralité de la Théorie de la restauration, comme "matière qui définit les bases logiques de cette profession"; et, encore, que "doit servir de catalyseur pour les diverses disciplines concernées".<sup>8</sup>

Dans cette optique qu'on peut dire «globale» et qui donne à la théorie un rôle constitutif dans la structure des principes doctrinaux, s'oppose une situation pas bien définie: le décret qui règle la réforme de l'organisation universitaire (D.P.R. n. 806/1982) supprime les enseignements "Restauo dei monumeni" et, même, «Caratteri stilistici e costruttivi dei monumenti» en favorisant une fragmentation de la matière de la restauration (architectural, urbain, et de plus l'enseignement de *Théorie de la restauration*).

L'éloignement de toutes les disciplines critiques et historiques qui, par contre, constituent la base de la doctrine de la conservation est assez évident; cela est ressorti comme une condition extrêmement négative par les professeurs de restauration lorsque, pendant le XXI Congrès d'Histoire de l'Architecture en 1983 (*Storia e restauro dell'architettura: aggiornamenti e prospettive*), la tendance courante de tenir séparé l'*histoire* de la *restauration* venait d'être soulignée.

Il s'agissait, bien sûr, d'une tendance ambiguë, mais qui marche au fur et à mesure de la propagation d'un «tecnicismo, che vede l'intervento conservativo come sommatoria di momenti tecnico-scientifici sostanzialmente separati e indipendenti non come operazione di necessaria sintesi, dei pur diversi apporti specialistici, illuminata e diretta da un atto di intelligenza storico-critica».<sup>9</sup>

L'impasse de l'opération de réorganisation de l'architecte-conservateur est très bien manifeste dans le VI Convegno nazionale dei docenti di restauro dei monumenti: on trouve, dans son rapport final, la requête d'une véritable vérification des lois responsables de la réorganisation des Universités, des Facultés d'Architecture et des Ecoles de Spécialisation, en étant, pour ces dernières, les lieux où les mises à jour et les études de doctrine les plus spécifiques se déroulent.

En d'autres mots, l'opposition entre les arrêts gouvernementaux et le corps entier des enseignants, pendant les années quatre-vingt, continue: les premières à faire avancer programmes visant à la séparation de la sphère des disciplines scientifiques des doctrines humanistes; les enseignants, en revanche, renforcent leur idée de la nécessité de l'intégration des cours d'études dont référence ci-dessus dont la forte cohésion constitue la base indispensable de la structure de l'iter de la formation.<sup>10</sup>

Le sujet est saisi à niveau au international aussi. Le *Convegno internazionale di studi sulla formazione universitaria e post-universitaria dei tecnici del restauro dei monumenti* avait été lieu en 1986 en démarrant un débat auquel ont participé des représentants de l'UNESCO, de l'ICCROM et, en plus de quelques enseignants italiens, un très significatif groupe d'enseignants étrangers;<sup>11</sup> cela a permis, en effet, d'apercevoir la nature essentiellement européenne du problème.

De ce fait du 10 giugno 1985 que date (85/384/CEE) la première Directive européenne – même si elle se réfère à l'architecte généraliste – pour les professionnels diplômés en ingénierie et architecture prévoit l'accès à la profession dans toutes pays appartenant à la communauté européenne.<sup>12</sup>

Si tout cela correspond très justement à l'objectif d'éliminer toutes discriminations pour l'exercice de la profession, il faut ajouter qu'on a bien contribué à donner une nouvelle et ultérieure menace au destin du patrimoine monumental.

Malheureusement, le décalage des différents situations de la formation professionnelle parmi les pays de l'Union européenne était (mais est encore) plus que fort, mais, en outre, l'enseignement de la discipline de la conservation ressort vraiment faible dans le curriculum des études universitaires concernant l'architecte.

De ce fait, si l'exercice de la profession d'architecte et d'ingénieur dans les divers pays européens est accordé aux différents techniciens qui atteignent le titre à travers des instituts, des polytechniques, des écoles supérieures, des académies, etc., pas toujours de niveau universitaires,<sup>13</sup> il est encore plus compliqué de saisir dans les cours et dans les programmes d'étude l'enseignement de la discipline de la restauration du patrimoine architectural et, même, des autres censés proches de la conservation; et tout cela, cependant, montre évidemment la prédominance de la technique sur les autres composantes de l'architecture.

Avec la suppression de la Directive susdite de 1985, on peut apercevoir plutôt une simplification de la définition des traits qui doivent caractériser l'architecte, qu'un approfondissement du sujet et de la réglementation de l'exercice professionnel.<sup>14</sup>

Par conséquent, une amplification remarquable du danger s'avère pour l'avenir du patrimoine architectural et européen mais aussi: la faute d'une coordination équitable et attentive des enseignements universitaires et académiques qui soient au-dessus des contextes nationaux et, même la position minoritaire du secteur de la restauration confié aux Instituts ou aux Centres présents longtemps sur le territoire européen, miment à la base non seulement la possibilité de formation de professionnels avec un savoir-faire considérable pour opérer dans ce domaine, mais tout cela offre aussi la possibilité à la myriade des Centres de recherche (parfois privées et à travers de conventions sponsorisées par la Communauté européenne elle-même) d'entamer les biens culturels.

Ces centres (très souvent sous la forme de consortium) en détenant les systèmes techniques et scientifiques ont la prétention d'être (et non d'offrir) la solution de problèmes que la restauration et la conservation du patrimoine posent; ils deviennent, de

fait, le premier instrument à opérer *sur* le patrimoine architectural et urbain, en montrant et soulignant l'éloignement du monde académique qui représente, c'est sûr, la place d'élaboration des bases théoriques qui ont la tâche de conduire la pratique.

C'est alors qu'on revient, après avoir tourné en rond, à la question des fondements, et quand on entend le *corpus* des «raisons d'être», les causes internes de la nature de la structure disciplinaire doivent alors toujours être vérifiées dans leur nécessité rationnelle.

Sont les bienvenus, donc, le progrès scientifique, le démarrage de protocole pour la praxis, le développement méthodologique avec l'approfondissement de ses phases, la standardisation des analyses les plus sophistiquées, la coopération internationale, l'évolution des modèles pour saisir les fonctions soutenables, l'utilisation des techniques digitalisées pour la connaissance et la transmission au public toujours plus curieux de patrimoine artistique, et tout ce qui peut mettre en valeur notre réseau culturel.

Mais, dans l'esprit d'une protection des significations de ce que l'architecture, à travers sa présence sensible, transmet, il faut que le caractère scientifique des processus de conservation soit plongé dans le tissu constitué par les fondements qui devraient en régler l'application.

Ce tissu, en voulant donner suite et confiance à la notion moderne de conservation du patrimoine, doit être nourri par les enseignements d'histoire de l'architecture et de l'art, d'historiographie artistique, de littérature artistique, de philosophie, d'éléments de la construction et stylistique de l'architecture, histoire de l'entretien et de la science de bâtir, et, en dernière position bien-sûr, d'esthétique.

De la force doctrinale et de l'intégration de ces champs disciplinaires avec l'acquis scientifique et technologique dépend l'avenir de l'architecture du passé le plus lointain, mais aussi de celui plus récent, dont la compréhension est liée aux paramètres contemporains de l'interprétation.

Pour cette raison principale, et afin de vraiment comprendre ce que peut-être aujourd'hui la conservation de l'architecture et sa restauration, il est assez clair qu'il est convenable d'avoir les idées claires aussi bien sur ce qu'est l'architecture, mais sur ce que l'architecture est pour *nous*.

Cependant, il est aussi clair que les expériences didactiques récentes ne permettent pas d'apercevoir un alignement entre ces principes et ce qui est prévu aujourd'hui pour la formation par la loi. Il serait vraiment suffisant d'analyser l'organisation soit des diplômes triennaux (avec l'enseignement de *Fondements de restauration*), soit de celles des spécialistes en Architecture-Restauration (avec l'enseignement *Théories et Histoire de la Restauration*).

La réforme, en comprenant deux moments de formation différents, a obligé dans le premier cas à une synthèse de la doctrine de l'époque en ne pouvant éliminer aucune matière qui la concerne (histoire, théorie, législation, questions urbaines et archéologiques, technique, etc.); dans le deuxième cas, par contre, la réforme apparaît donner beaucoup plus d'espace à l'enseignement de type théorique. Mais dans ce dernier cas, même si il est *théoriquement* possible d'approfondir des thèmes doctrinaires, il n'y a pas un *background* adéquat de formation de l'élève qui permet de mener à bien les approfondissements souhaités.

Cela concerne non seulement l'attribution du nombre des crédits-heures du cours, mais surtout l'essence et les contenus des cours mêmes: ceux d'Histoire de l'architect-

ture, par exemple, sont concentrés sur des périodes chronologiquement différentes qui ne permettent pas à l'élève d'avoir une vue d'ensemble de la matière; l'histoire de la critique et de la littérature très souvent n'est pas apprise; aucun fondement d'esthétique n'est d'ailleurs souvent donné. En fin, à tout cela s'ajoute le défaut de la préparation générale dont l'école secondaire est responsable.

On assiste, alors, à un *gap* très profond entre la situation actuelle de la discipline avec son développement et les moyens de *faire*.

S'il y a d'un côté des centres d'excellence qui mettent en place d'imposantes restaurations que les medias amplifient, d'autre côté il y aura des architectes qui, très probablement, ne réussiront pas à utiliser les connaissances apprises pendant tout le temps passé dans les universités.

A ce propos l'effort de l'Etat en ce concerne l'organisation de la profession des restaurateurs appelés seulement pour la conservation et la restauration des «surfaces décoratives des biens architecturaux» (!) n'a pas été éclairante.<sup>15</sup>

On laisse au lecteur la perception immédiate de la complexité (mais aussi du danger) de ces distinctions qui montrent une vision de l'architecture, pour dire peu, médiocre. Le restaurateur, pourra, donc, faire des projets, réaliser et évaluer des interventions sur les susdites «surfaces»; aidé dans sa formation par les «Agenzie formative» avec une identité douteuse et non spécifiée.

Pour conclure, le domaine de la restauration et de la conservation apparaît plein d'obstacles insidieux et est parfois frappé par une mauvaise idée du projet, soit dans le champ de l'architecture, soit dans celui de sa protection.

Il est utile pour ne pas dire nécessaire d'avoir un effort conjugué à partir des Universités afin que la communauté scientifique appartenant à la restauration puisse être une force active dans le cadre de la réorganisation de l'enseignement que le défi européen appelle à jouer.

Le parcours est difficile et en pente: mais il faut juste le savoir et n'être pas étonnés par le progrès scientifique et l'usage exclusif dans la conservation.

Tout cela afin d'être moins complice de la destruction des valeurs que le patrimoine architectural, malgré tout, continue à garder.

1 Le site d'Ajanta est un des lieux les plus importants du patrimoine culturel de l'humanité; il est aussi dans la liste du patrimoine mondial U.N.E.S.C.O. La présence italienne en Inde représente le résultat des accords pris dans les années passées entre le Ministère des biens et des activités culturels d'Italie et les autorités indiennes.

2 On ne peut pas manquer de relever, à partir de les années quatre-vingts, les Recommandations et les Conventions nombreuses ayant le but de approfondir la notion de patrimoine. Un débat, par ailleurs, qui est encore en cours. En particulier, il a été très justement affirmé que «il faut rompre très nettement avec une notion du "patrimoine culturel" qui résume celui-ci au processus et aux techniques de préservation des monuments (c'est à dire d'"objets"), et à des pratiques liées aux traditions nationales»; et encore «on doit procéder à une réorientation du 'contenu' et du 'sens' même de la notion de patrimoine culturel, telle qu'elle est pratiquée par le Conseil d'Europe». V. R.Weber, *Introduction a Prospective: Fonctions du patrimoine culturel dans une Europe en changement*, Recueil des contributions d'experts, Conseil d'Europe, 2002, p. 6. Afin d'avoir une vue sur les documents européennes en ce qui concerne le patrimoine culturel v. A. Aveta, *Conservazione e valorizzazione del patrimonio culturale. Indirizzi e norme per il restauro architettonico*, Arte Tipografica, Napoli, pp. 9-18.

- 3 On saisi la présence inopportune des cours de diplôme universitaire dans les Facultés qui ne sont pas d'Architecture (comme Instituts Universitaires - même si de bon niveau -, Facultés de Littérature, et de toute façon, Facultés humanistiques ou scientifiques); cela ne permet pas une bonne étude des matières techniques de l'architecture, ni, dans l'autre cas, de celles historiques et artistique qui caractérisent l'architecture elle-même.
- 4 On peut voir le point II du Vœu du I *Convegno nazionale dei docenti di restauro dei monumenti*, en "Restauro", n. 124, 1993, pp. 85-86. Il y a eu des autres Congrès des enseignants de restauration des monuments en 1976, 1977, 1978; ce dernier formulait l'hypothèse de base pour l'organisation du cours universitaire de «Conservation des biens culturels»; par contre, un autre congrès, le cinquième qui a eu lieu en 1980, non seulement recommande de démarrage d'un diplôme finalisé à la formation des professionnels préposés à la conservation des biens culturels, mais aussi le Congrès demande qu'au moins une orientation en «Conservation des biens architecturaux et de l'environnement» soit institué dans le cours d'étude du diplôme universitaire d'Architecture.
- 5 Egalement à la *Déclaration d'Amsterdam*, la *Charte Européenne du Patrimoine architectural* (1975), en soulignant l'action de la *conservation intégrée*, réputée indispensable le perfectionnement des moyens techniques, administratifs et législatives (v. point 8 de la Charte); ces derniers regardent l'adéquation de la formation pour les architectes, les techniciens, les entreprises spécialisées, les artisans qualifiés.
- 6 R. Di Stefano, *Il recupero dei valori. Centri storici e monumenti. Limiti della conservazione e del restauro*, E.S.I., Napoli, 1979, pp. 169 et ss. Les sujets traités font partie de la Relation introductive au *IV Incontro dei docenti di Restauro dei monumenti* ("Giornate di studio sulla formazione universitaria dei professionisti addetti alla conservazione dei beni culturali", Napoli, 28-29 aprile 1978).
- 7 V. *ivi*, p. 173. Il faut dire que le débat était finalisé à l'organisation du cours universitaire en «Conservation des biens culturels», dont il faudrait aujourd'hui vérifier la cohérence avec les exigences professionnelles actuelles dans notre contexte national.
- 8 V. le vœu final du "Colloque de Rome", Assemblée Internationale I.C.O.M.O.S., en «Appendice» à R. Di Stefano, *Restauro e monumenti. Formazione e professione*, cit., p. 101
- 9 V. vœu final du Congrès *ivi*, pp. 28-29.
- 10 Un exemple très indicatif est constitué par le travail de la Commission du Ministère (Formazione e qualificazione professionale degli operatori del patrimonio culturale e ambientale, 1987). On proposait d'organiser la formation en différents Facultés: de cette manière, en ayant plus d'une «compétence» (!) l'élève n'aurait pas eu de la difficulté à trouver un emploi dans le marché du travail. Ces cours étaient les suivants: "Storia e tutela dei beni culturali" dans les Facultés de Littérature et dans les Facultés de Magistero; "Analisi e recupero dei beni architettonici e ambientali" dans les Facultés d'Architecture. Il est très évident comme dans ces cas l'anéantissement de la restauration et de ses significations modernes se vérifie.
- Nombreux professeurs s'opposaient à cette résolution : à ce propos on peut voir le Document sur la relation finale de la Commission du Ministère signé par G. Carbonara, P. Fancelli et T. Scalesse. Pour avoir une référence précise de ce débat, v. R. Di Stefano, *Restauro e monumenti. Formazione e professione*, cit., pp. 31 et ss.
- 11 Le Congrès, en partenariat avec le Ministère de l'Instruction Public, était démarré par l'Ecole de Spécialisation en Restauration des Monuments et le Dipartimento di Conservazione dei beni architettonici e ambientali. En plus de R. Bonelli, R. Di Stefano, S. Boscarino, M. Dezzi Bardeschi, des enseignants étrangers y participaient, comme J. Barthélemy, N. Moutsopoulos, A. Tomaszewski. En particulier, ce dernier a traité le sujet de la formation à niveau international et pour ça v. *Remarque sur la situation de la formation universitaire et postuniversitaire dans le domaine de la conservation et la mise en valeur des monuments historiques et des sites* (1985) et *Les formateurs en conservation; introduction à l'expertise pour l'UNESCO* (1989).



- 12 À ce moment cette Directive a été remplacé par la 2005/36/CE (en Italie DLgs 206/2007) qui est relatif à la reconnaissance des spécialisations professionnelles; la Directive 2006/100/CE est inhérente à la libre circulation des gens après l'adhésion de Bulgarie et de Roumanie; v. la GU n. 261 de 9-11-2007 - Suppl. Ordinario n. 228.
- 13 Afin d'avoir une vue de ce gap extrême entre ces niveaux de formation dans les divers états membres, il serait suffisant aller voir le chapitre III des Directives du Conseil de la Communauté Européenne de 10 juin 1985 et la successive mise à jour 88/C 270/03 de 19 octobre 1988 et 89/C 205/06.
- 14 Avec la Directive de 1985 il y avait un Comité consultatif pour la formation dans le domaine de l'architecture chez l'Union Européenne elle-même; le Comité était chargé de vérifier la compatibilité entre les cours universitaires nationales et les contenus de la formation établis par la Directive. A présent le Comité a été remplacé par le Comité de réglementation.
- 15 Cela est rapporté au projet de loi "Disciplina dell'insegnamento del restauro dei beni culturali" de 30 août 2002.



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**Why Teaching Conservation at all  
in a Mercantile Society?**

While the most important question is “what” do we teach in conservation field, “why” do we teach seems to become one of the most important not asked questions today, in some developing countries!

One might say, visiting Romania in present days, that history of architecture, heritage and the problems that come with it are studied just because it is traditional to do so and not because it is an essential part of the professional development of an architect. In a country where the creation of the society of architects, of the national school of architecture and of the law concerning historic monuments are all related to the same social/professional movement at the end of the XIX<sup>th</sup> century (1891 - 1892), traditional approaches should be a natural trend. In fact, tradition and history are not enough anymore; they are sometimes - more and more often - perceived as a brake for the economic development.

### **Organizing information for the students**

Traditionally, in the University of Architecture and Urbanism “Ion Mincu”, heritage was studied on the basis of both theoretical approaches and practical ones. As in many other schools of architecture around Europe, more attention is given to the theoretical courses such as: history of architecture, history of architectural conservation, theory of the conservation project, legislation and so on. Practical parts are more and more reduced to workshop applications at the level of fourth and sixth year of studies – obligatory – and of the fifth year of study for those students that have the option for the specialized workshops. Practical things, done upon historic buildings are few and are mostly related to the surveying techniques taught in the fifth year on study. Scanty workshops are also proposed to students opting for brief training periods based on voluntary work with specialized construction teams or individual specialists. The study trip of the fourth year became recently more and more important. It is the occasion for many of our students to get to see landmarks of the history of architecture in Romania and, through the direct presentation, to better understand heritage.

To summarize, here is the structure of the courses dealing primarily or indirectly with the concept of heritage within the curricula of the University of Architecture and Urbanism “Ion Mincu”:

- First, second and third year have “packages” of compulsory courses dealing with: history of architecture (evolution of the phenomenon of architecture worldwide), elements of traditional architecture in Romania, morphology of the styles (optional). During these first three years some other courses are touching heritage in indirect manner by analyzing the urban morphologies or by speaking of context and landscape.
- Fourth and fifth year are bringing more possibilities of option for different areas of interest, heritage being one of them. Still, compulsory remain the course about basic notions and concepts of heritage protection and the workshop of restoration (short restoration project as application) that go along with it. Also obligatory are the course of history of Romanian architecture since the XIX<sup>th</sup> century, the one week study trip and the two weeks period of architectural survey. More applied courses can be chosen by students such as: technology of building rehabilitation, recycling the built areas, styles, restoration techniques, heritage inventorying,

types and theory of interventions in heritage conservation. Also optional is the workshop with the project on insertion of new buildings in protected areas.

- The sixth year of study has just a semester for teaching since the second one is destined for the license project. During the first semester it is compulsory a short project of restoration applied on the building surveyed in the fifth year. Some optional courses, having a more theoretical, even philosophical approach, are available for students. They are related to: theory of the historic monument and to the relation between architecture, culture and society.

### **Present challenges in terms of internal professional necessities**

The question of "WHAT" is taught in our school is much affected by the way the school is organized. The courses presented here are mostly the responsibility of three departments: History and Theory of Architecture and Heritage Conservation, Technical Sciences and Urbanism. That leads to the fact that information is not always given to the student in an integrated, concentrated and coherent way, even if that is the ultimate intention but accordingly to the objectives of each specialized chair.

A step forward, taken by the University of Architecture and Urbanism "Ion Mincu" was the creation, this year, of a specialized school in Sibiu (Sibiu is the European Cultural Capital in 2007), focusing on teaching architecture based on heritage issues, as the result of the initiative of the chair of History and Theory of Architecture and Heritage Conservation and of the chair of Technical Sciences. The aim of this new branch of the university is to concentrate the efforts and to provide integrated information in order to produce architects (bachelor of architecture, initially) better qualified in both understanding and creating architecture in a built environment or in preserving heritage.

This follows, in a way, a certain success we had with our students in putting together the expertise of the chairs for design and that of history and theory of architecture, for a practical exercise in a workshop project of the fourth year having the theme "insertion of a condominium into a established built environment". This specific project started with the in depth analysis of the site conducted by the chair of history and theory of architecture and, based on the conclusions obtained by observing and revealing the characteristics and values of the site (materialized in a general set of rules for the neighborhood), within each studio followed the development of the concepts for the new buildings in accordance with the rules previously determined. Guidance provided simultaneous by teaching staff of the two chairs was an important experience for both students and professors as this exposed several misconceptions in perceiving the notion of protected areas, means of enhancing the quality of established environment and so on.

Having this as a background, the new bachelor program in Sibiu was set to function following the principle of integrated teaching. Basically, the nature of information will be similar to the one provided in Bucharest, most of the teaching staff being also the same, the difference consisting of the way it will be delivered. Still, the major difference is that the starting point of any lecture or workshop will be an existing building or an established site (not necessarily legally protected) that will require the time and effort to adapt architectural themes and programs to the context.

Therefore the structure of the three years of the bachelor program in Sibiu consist of four pylons or modules:

- Introduction to architectural design
- History and theory of architecture
- Building techniques
- Urbanism

The four modules are wrapped in a larger module of compulsory and optional lectures of heritage conservation.

Lectures of the four modules will be split into two parts: a broad one meant to give the general frame of the specialty and a more specialized one, inserted in the different workshops with practical architectural projects.

To give an example let's imagine a topic: "metal in architecture". Within the training period of the second year, a compact segment is dedicated to the study of metal in architecture. The module of architectural design serves this by developing the theme of hotels with the specific task of designing a metal structure. During workshops for this project, the module of history, apart from the general study of the evolution of architecture in XVIII<sup>th</sup>, XIX<sup>th</sup> and XX<sup>th</sup> centuries, will dedicate some lectures for detailing case studies as Eiffel Tower, Les Halles de Paris, Crystal Palace, Iron bridge of Cernavodă and so on. In parallel, from the module of building techniques, some lectures by invited civil engineers will enable students to learn about modern details and requests of a metal structure. From the module of urbanism some time might be dedicated to debate on the constraints of urban configuration might involve in designing a new structure. Overall, during practice, survey of the iconic cast iron bridge (1859) from Sibiu might be chosen and some lectures about restoration of metal objects can come with it.

Having all focused on the same item – metal – from different angles, students might have at the end a better and concise view over architecture. Studying also with care of existing examples and sites might hopefully get them to develop a more respectful approach of heritage.

## **Present challenges in terms of external needs**

External needs might be considered to be the requests of the market and of the society in general, those not necessarily being met by present architectural education, at least in Romania.

Unfortunately, until now there are not enough courses of economy, sociology related to the issue of making use of heritage, as regular people understand that. It is critical for architects trained as conservationists, restorers or simply as architects with respect for context, to be able to communicate with their clients – private or public. In order to do so, an architect should be provided with the skills of communications and with the knowledge of the type of perceptions that their clients have over heritage. An architect perfect connoisseur of restoration doctrines cannot do anything if facing a mayor who does not care, or a private client which is narrow-minded, unless he is equipped with the ability of transmitting and sharing the values he stands for.

This brings us back to initial question, not so frequently asked lately: "WHY?". Why should we care so much of built heritage when building tend to become just a technical matter, when a new building is cheaper, easier and faster to build and, in addition to that, stands for 25-30 years and does not really matter if it is put down afterwards?

It seems that something (quite a lot) changed in the mentality of most of societies since the times when heritage conservation emerged as a concept. We are studying today what John Ruskin and Viollet le Duc preached more than 150 years ago, probably missing a little bit the real motivation of their work at the time. Since motivation of clients (state, administration, private) would have changed since then, a new approach of tackling this issue has to appear. This should happen because today, a client would, in the first place, wonder if it really worth it to care for authenticity, to preserve the original substance and to do all the “moral” or “right” things that were clearly articulated since Camillo Boito.

The problem in Romania is that we had experienced half a century of abnormality and, after that, an abrupt turn towards a wild market economy and – the way the first postrevolutionary president expressed it in 1990 – an “original democracy”.

These stormy times changed completely mentalities, ripped apart traditions, therefore, putting also in question the notions concerning heritage. Hasty economic development and the ever stronger pressure of the real estate market are heavily influencing today the way people see built heritage (buildings and urban or rural protected areas). It is more and more common that students in architecture are wondering why they are asked to study history and principle of conservation, as they are the first generations to be raised and educated after the revolution, in an social environment that reevaluates its ideals and principles, adopting more and more “the American way” – so to say – where money and immediate profit of the investor come first, where everything is replaceable/disposable and monuments are perceived, in so many cases, as caprices of a minority.

What should be today the arguments in front of an ignorant client when even an extremely well educated and one of the best Romanian architects, a respectful professor, considers that it is right to demolish the client’s building in order to rebuild an exact copy just to make room for an underground parking, considering this a way of actually saving the building (as the client just wants to clear the plot to build a high rise)? And since, in fact, the ignorant “client” manages – with no articulate intervention of authorities – to destroy the house as a vandal, while specialists still are debating on the issue, why even think of appropriate concepts and techniques? Of course, this is an extreme example, not singular, from Romania, but there is no doubt that this happens in every place in Europe where the economic pressure is strong enough and the authorities not vigilant enough.

The point of this is that high quality architectural training is definitely not enough anymore today. Good notions of structural engineering, economy, sociology, administrative policies would not compensate the lack of well-trained specialists in those specific fields, able to understand and promote the notion of heritage within the society along the architects. Thus, students have to be trained to better connect with those specialists and with their communities. For this reason, a new overview of the general motivations of society to preserve heritage has to be performed. It is also the time now to teach “heritage” not only the students but also the civil society and the authorities.

This is probably why the most important question to put today would be: “Why teaching heritage conservation at all?”. As soon as a clear answer to that will exists, it would be probably much easier to define “what to teach” in order to meet the specific needs of the today mercantile society.





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**Technology of Architecture  
towards Conservation**

## Technological disciplines towards conservation

The paper is mainly – but not exclusively – related to section n. 2 of the preliminary program, where the promoter wrote questions concerning possible ways of teaching conservation in the Schools of Architecture. Among these various questions, the paper intends to go deeper into possible integration between disciplines and to emphasize the significance of design, both in the acquisition of knowledge and in cultural elaboration.

The teaching examples presented regard the recent experience carried on with the students of the annual “Laboratory of construction of architecture” within the undergraduate course of Architectural Restoration, in the School of Architecture of Genoa. The Laboratory is settled at the second year (10 credits). The same approach, with different contents, also characterises the teaching method inside the ph. Doctorate in “Building and environmental renewal” (in which are involved, all together, professors from the Universities of Genoa, Naples and Palermo) and the School of Specialisation in Architectural Restoration and Landscape Heritage (for degree architects all over Italy, held at the School of Architecture of Genoa).

Specifically, the “Laboratory of construction” is organised as a sort of “atelier”, emphasising technological and constructive knowledge, specifically oriented towards the themes of conservation.

Main purpose of the teaching activity is therefore, beside the acquisition of a set of competences, a deeper thought on the significance and the role of technological disciplines and technique, to be considered as a tool and not as a final aim, as seems to be in contemporary architecture and society<sup>1</sup>. In our culture, building market is rapidly developing, both producing new materials (or traditional materials added with new ones in order to achieve better performances), and testing new construction techniques. This condition in one way enriches the catalogue of available solutions but, on the other hand, may direct the teaching towards the presentation of different and various techniques, never really up-to-date, because under fast evolution; in such a way the contents of teaching could become a sort of collection of a catalogue among which the student could choose, at the end of his design process and with more or less indifference, materials, details and building techniques.

The specific attitude of the teaching is, considering these possible risks, more focused on the traditional meaning of technological discipline, that is a reflection over the world of techniques, especially in its complex relations with the theory and the practice of the architectural design process. Even though many years passed through, it is still actual the idea of Giuseppe Ciribini, who marked the difference between technique (method-tool), intended as the way and the object of doing, and technology (science), intended as the way of thinking or, in other words, the theoretical reflection around the techniques<sup>2</sup>.

Consolidation, maintenance, modification, integration, addition are in fact ways to intervene, that means technical operations, used to answer general questions regarding the destiny of a built heritage, of an environment, of a way of living, of a landscape through a clear design process, that should be intended as a conscious and responsible choice.

## Conservation as a “multiple approach” teaching

The experience of the Laboratory is based on few premises.

- a) An active safeguard of our cultural and historical heritage passes through modification and changes (even if in the way of living a space).
- b) Architecture is one of the domain in which interdisciplinarity represents a fundamental requirement, where (following the thought of Blaise Pascal) it is not possible to know (or to understand) single parts without knowing the whole. Limiting the teaching of conservation to an analytical approach, the student could lose the general sense of its work. Certainly the discipline delimitates a domain of competences, without which the knowledge would become “intangible” and, on the other side, it constructs the objects of the scientific study. Anyway, the institution of disciplines involves the risk of hyper-specialisation of the researchers and, consequently, the domain of the disciplines could be perceived as a self-sufficient object. Is it possible to see a link between the following of specialized duties and the weakening of the sense of responsibility? It is convenient to remind to the students that the recent history of sciences is the history of the break of the disciplinary borders, of the circulation of concepts, of the forming of hybrid disciplines destined to become autonomous, or the forming of complex in which different disciplines are aggregated.
- c) The design activity, assumed therefore in its trans-disciplinary dimension, could fill the gap between “knowing” and “doing” and, especially regarding conservation, between “ancient” and “new”<sup>3</sup>. A long path of theoretical thought emphasized the central role of the project, as prevision of a new arrangement and of the induced effects, as sustainable activity, as creativity, able to match the attitude to research and to protect built heritage and environment.
- d) Working in the field of conservation, built heritage – to be protected and/or modified – is the main constraint to the validation of the project. What is really important to control, beside technical operation on the existing building(s) or environment and on the new addition (integration, modification...) is the mutual relation between these two worlds (ancient and new...).

## Goals of the teaching

Main educational objectives of the teaching activity in the Laboratory are:

- to know built architecture and environment within its physical consistency and related to the whole constructive process. To develop a trans-disciplinary and complex understanding and knowledge of built environment, traditional architecture is a preferential field, also because it is far from normalization. The effort that is asked to the students is to refine their way of investigation and understanding built architecture as a first step to develop a complex knowledge and to face innovation vs. tradition;
- to understand the relations between materials, morphologies, structural principles and ways of connections that characterise different parts of an architecture;
- to face an architectural project (from the morphogenesis to the development of building details) merging architectural needs with other requirements linked to

the active safeguard of the existing object, the building facility, the duration in time and future deterioration, the possible maintenance and energy saving.

Regarding point two, in particular, it seems necessary nowadays to hardly propose again, as one of the main purpose of the teaching, the knowledge and the comprehension of the physical feature of architecture, in its complex material, constructive and linguistic meanings. Architecture, in fact, has always been the art and the ability to join different shapes and materials, dominating the mutual relations in the technical and constructive sense and solving, in morphological terms, the functional role inside the building.

More precisely, general competences to be acquired by the students of the Laboratory are:

- Trans-disciplinary and complex understanding and knowledge, especially regarding built environment, that is in fact the main field of application of the undergraduate course of Architectural Restoration. In other terms, the teaching attempt is to help the student to understand the main origin and meaning of the word “complexus” that in fact means “what is issued together”.
- Ability to understand the objects in their complex and as a sum of parts with mutual influences – trying to stimulate the curiosity of students for all is settled in the built environment and especially for reasons, ideas and concepts that are behind forms, signs and, in general, architecture.
- Capacity to apply a spirit of “synthesis” in the design of new buildings or part of them (that is in fact the most important feature of the design process but, at the same time, the most difficult aspect to be taught because involves invention, innovation and creativity).
- Ability to develop a design process as General Problems Setting and Solving (4) together with experts, following a circular method named by contemporary scientists as “attempt and error” increasing therefore the sense of responsibility of the future architect for each personal choice that raises up from his mental design process. This means, in other terms, to verify each design choice in terms of future possible consequences on each system and sub-system (as the environment, the duration in time, the expectations of final users, the comfort, the energy consumption...).

These questions are, more or less, also strength inside the “Tuning project”, one of the main topic of the activity of the Association. In fact, the best answer that we could imagine, has to be expressed in terms of a set of competences, as:

- a) The ability to develop a pertinent knowledge: it is in fact necessary to substitute a way of thinking that separates and divides (reductionism) with a way of thinking that distinguishes and connects (holism) and, in other terms, it is necessary to recognize and understand the risk of mistakes and illusions (a very common risk that could be hidden inside the concept of “discipline”).
- b) The capacity to develop a project finalised to the optimization of a result (and not to the maximization of an aspect (that often means the prevarication of a system over the others, as happened in our contemporary culture with the hyper techni-

cality and the myth of progress). On the other hand, the design process, because of its innovative character, implies the risk of the choice and it is therefore necessary to recognise and to face, in every innovative or design process, the possibility of risks and the risk of possibilities.

- c) The ability to elaborate a strategy that takes in count the complexity of specific purposes and their implications on systems and sub-systems (following the theory of systems that characterises the contemporary science).
- d) The capacity to “contextualize” the choices (that means to have in mind that each design process involves specific cases, decisions, relations, risks and unexpected events).

### **The way of teaching: architectural design as testing ground**

During the course the students are invited to explore “small architectural themes” inside an existing fabric (a roof structure, a system of new openings, a staircase, a small addition...), to choose autonomously materials and building techniques, studying also in detail the relations between built shape, materials and way of connecting different parts and, of course, concepts and ideas that support the architectural choices.

Furthermore the students are invited to carefully reflect over the implications and the consequences of their personal choices on the field of the possibility to construct, the economic feasibility, the inclination to physical decay, the duration and, at last, the way of future maintenance.

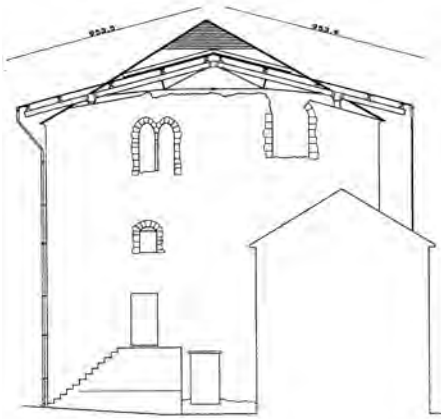
The students, within a common theme, are invited to work on a specific and existent object to be recovered and refurbished (a single building, a complex of buildings...) and to develop their personal choices of intervention, also with the help of specialists, trying to face and to solve, with a strong architectural “idea”, main problems as: morphogenesis of the parts and the whole architecture and “insertion” in a real landscape and territory; possibility to read and to interpret the existing “signs” and marks also developing architectural details; use of new materials and compatibility with the existing ones; structural behaviour and shape of the new parts and compatibility with the whole structural behaviour; knowledge of existing technologies and of phenomena of decay of materials and techniques of intervention; consciousness of the “environmental behaviour” of the new building or of the complex...

As an example, few main objects of the courses I have been: the design for the “missing tower” of the castle in Saliceto, near Cuneo (low Piedmont), “the reconstruction of parts” in the medieval complex of the Abbazia of Valle Christi, near Genova, the addition of a new roof structure on a medieval uncovered building near Genova. The sites are chosen because contextualisation becomes a preferential field of experimentation.

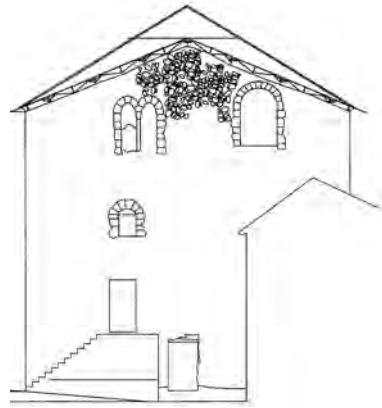
During their work, the students are helped to understand the very close relations between materials and man work; relations between products and building construction; relations between building techniques and environment. As a first step, the students are asked to analyse the site and the object of the new design in a such way like the described one, to capture also the ideas and the concepts hidden behind simple signs.



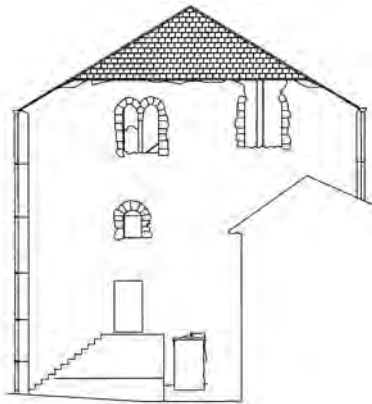
Fig. 1 & 2  
Medieval building around Genoa, partially uncovered.



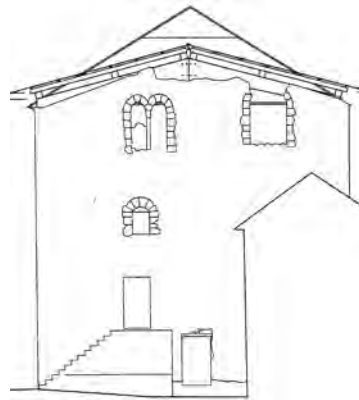
Drawing by Margherita Barberotti, Claudia Marchini, Anna Rosselli.



Drawing by Valentina Chioccoli, Valentina Marra.



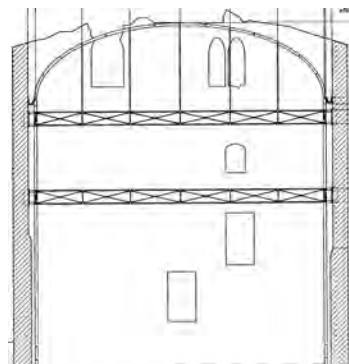
Drawing by Pasquale Stano.



Drawing by Maria Francesca Berta, Giovanna Turri.



Drawing by Paola Bongiorno, Monica De Giorgio.



Drawing by Elisa Ornis, Chiara Pasquale.

Fig. 3-8

Solutions for the new roof (shape, materials, building techniques).



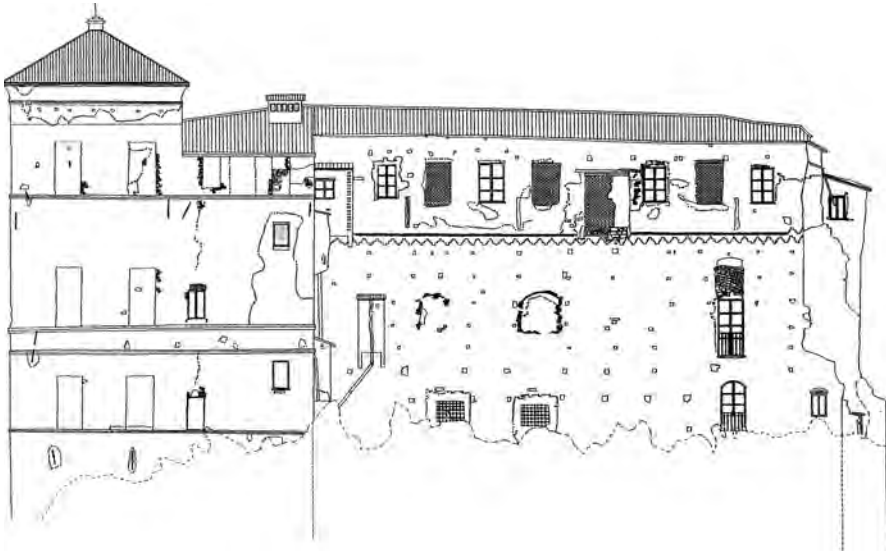


Fig. 9  
Castle of Saliceto, low Piedmont, lacking tower (survey and drawings by M. Armellino & F. Poggio, Associated Architects).

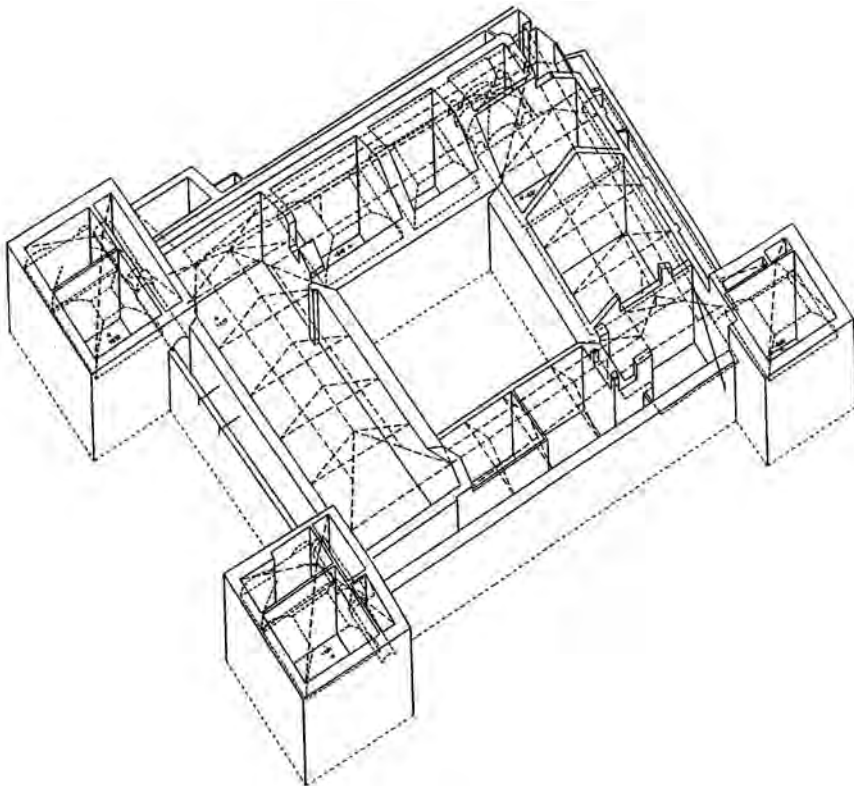
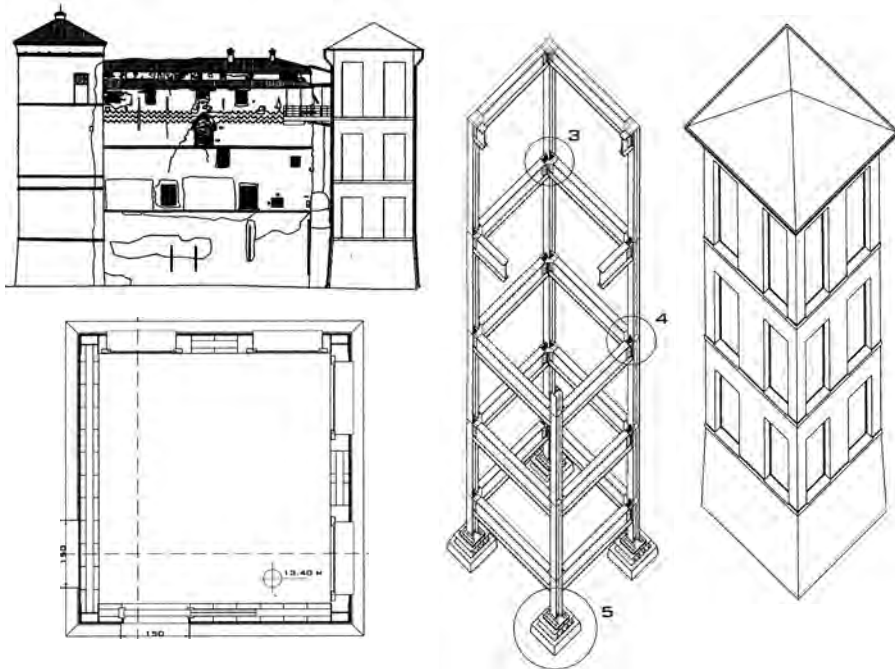
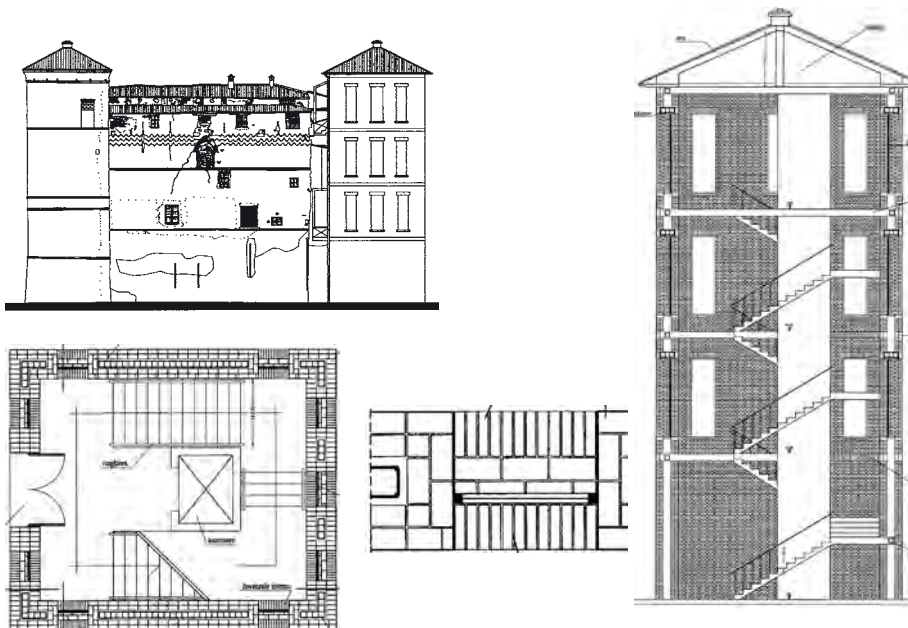


Fig. 10  
Castle of Saliceto, axonometry of the upper floor.





Drawings by Margherita Barberotti, Claudia Marchini, Anna Rosselli.



Drawings by Paola Bongiorno, Monica De Giorgio.

Fig. 11-18

Solution for the new tower (shape, materials, load bearing structure, building techniques).

To acquire specific competences, more related to the ability to face built environment, the design process is carried on continuously verifying ideas and their consequences (mutual actions) on “sub-systems” or partial approaches.

Specifically, in relation to the assigned item, the students are asked to develop preliminary ideas and to immediately verify their consistency in relation to:

- Materials (traditional and innovative) they want to use and structural conceptions (new facing existing architecture)
- Industrial products and building market (research on new materials, their possibility, their performances and, again, the relation between tradition and innovation)
- Building techniques and connections between parts and elements (that means to deepen the language of detail, the significance of signs)
- Connection between new building and existing one/s (language, morphology, structural behaviour especially in the joints between old and new)
- Relation between building/s and environment (indoor comfort – use of renewable sources – energy saving, especially related to the new parts)
- Tools to evaluate environmental quality of the building
- Inclination to a future decay and maintenance strategy of parts and the whole building.

As the students are located at the second year of their curriculum, it is almost impossible to cover all the requested items without the help of experts: the dialogue with them (most of whom belong to the School of Architecture) is at the same time useful for the specific contents and – moreover – for the curiosity they are able to stimulate in the students and for the possibility to solve specific problems all together around a table.

### **Conditions and implications of architectural design**

During the design experimentation – where the students are invited to hardly work in the class – the teachers try to clarify the essential conditions of the project:

- A prevision of the compatibility between the purposes of each project, among which specific importance is assigned to the conservation and safeguard of the existing fabric and, in the meantime, the rising up of standard quality (new quality facing sustainability).
- A clear consideration of specific conditions and constraints (relations with environmental and cultural context, way to use the fabric, choice of a new physical configuration, choice of technical operations).
- The specification of possible conflicts that could rise among needs for the new use, economic problems, technical constraints, legislative frame...
- The choice of the most suitable tools to solve all the problems before raised.

The way to capture the attention of the students towards these theoretical problems is the confrontation with small architectural problems to be solved: very often (but not at all times) the students, facing traditional massive architecture, are oriented towards the research of a different language, through the use of light, flexible, translucent materials. Remarking the difference, the students seem to be able to emphasize

existing qualities (material, expressive and environmental) and, on the other hand, the elegance of the design and of the assemblage of new parts.

In other cases, the students choose a traditional way to add new parts: in this case, they develop – beside the necessary knowledge of traditional building techniques to be drawn again for the new construction – the sensibility towards immaterial values.

Anyway, the research of an architectural quality at the scale of detail is expressed through technical choices, as finishing and treatment of surfaces, combination of different materials, design of shapes and way of junction between materials and parts.

For these reasons, also “swimming against the stream” in respect to actual tendencies that prefer diversification and specialisation, it has been assumed to come back to the foundations of the technological discipline, that in some way have been lost, especially regarding the correspondence between the idea, the concept and the way of building.

Few years ago Giancarlo De Carlo was writing: «decorative and constructive details leave the stage. We are no more able to connect correctly and with competence two or more different materials, neither to solve naturally and with elegance the transition from an horizontal or vertical plane to a sloped or curve one»<sup>5</sup>.

This important teaching has to be kept in mind especially flipping through the pages of the numerous contemporary architectural magazines that propose a lot of images; it is clear that the students – also thank to the use of digital technology – tend to rapidly use and elaborate them. The risk in the use of images is similar to the collection of a repertoire of shapes (false images) that could be proposed in different situations, out of context and loosing the real meaning of concept.

As a matter of fact this risk was been marked, prophetically, by Italo Calvino during a cycle of conferences held in the United States, concerning literature and culture. With regard to the «inflation of prefabricated images» (typical effect of the contemporary society, that is a society of images) he warned against the danger of the «recycle of the images used in a new context that changes its sense»<sup>6</sup>.

The attempt of the teacher, working together with the students, is to make them looking at their specific design within the complex relations between “intention” and “building convention”, “sign” and “practicality”, “image” and “intentional thought”, working preferably on architectural details, that express the way and the shape to join parts, elements and materials.

Certainly the practice of assembling, huge consequence in the building market of the last industrial revolution, often completely modified the design process, turning it from the work of an artisan into a section of a more complex working structure, that is progressively depriving itself of the poetic content and delegate to specialised enterprises the choose of one, among the possible, detailed project<sup>7</sup>.

However it still remains a wild space, also in the post-industrial society, to conceive architecture as a synthesis of shape (in the Aristotelian meaning), function and executive technique, in its turn conditioned by the material and the language.

Drawing and thinking to specific materials and elements, the students better appreciate contemporary architectural debate round about conservation vs. modification, massive vs. light, solid vs. void, natural vs. artificial, thick vs. dissolved, perpetual vs. ephemeral, not to be seen as terms in contradiction (results of the past vs. results of the “new”) but as complementary words<sup>8</sup>.

## Notes

- 1 Gregotti V., *Architettura, tecnica, finalità*, Editori Laterza, Roma-Bari, 2002.
- 2 Ciribini G., *Tecnologia e progetto*, CELID, Torino, 1984.
- 3 See Rossi A., *L'analisi urbana e la progettazione architettonica*, Clup, Milano, 1970; Grassi G., *Il rapporto analisi-progetto*, in Rossi A., 1970; Boaga G., Giuffrè R., *Metodo e progetto*, Officina, Roma, 1975; Perego F. (a cura di), *Anastilos. L'antico, il restauro, la città*, Laterza, Roma-Bari, 1987; Spagnesi G. (a cura di), *Esperienze di storia dell'architettura e di restauro*, Istituto della Enciclopedia Italiana, Firenze, 1987; Musso S., *Questioni di storia e restauro*, Alinea, Firenze, 1988; Torsello B.P., *La materia del restauro*, Marsilio, Venezia, 1988; Di Biase C. (a cura di), *Nuova complessità e progetto per la città esistente*, FrancoAngeli, Milano, 1989; Masiero R., Codello R. (a cura di), *Materia signata-haecceitas. Tra restauro e conservazione*, FrancoAngeli, Milano, 1990; Benvenuto E., Masiero R., *Sull'utilità e il danno della conservazione per il progetto*, in "Casabella", n. 579, 1991; Fontana C., *Recuperare. Le parole e le cose*, Alinea, Firenze, 1991.
- 4 Morin E., *Introduzione al pensiero complesso. Gli strumenti per affrontare la sfida della complessità (Introduction à la pensée complexe)*, Sperling&Kupfer, Milano, 1993 (tr.).  
Morin E., *La testa ben fatta (La tête bien faite)*, Raffaello Cortina Editore, Milano, 2000 (tr.).  
Morin E., *I sette saperi necessari all'educazione del futuro (Les sept savoirs nécessaires à l'éducation du futur)*, Raffaello Cortina Editore, Milano, 2001 (tr.).
- 5 De Carlo G., *Nelle città del mondo*, Marsilio, Venezia, 1995, pag. 22.
- 6 Calvino I., *Lezioni americane. Sei proposte per il nuovo millennio*, Mondadori, Milano, 1993, pag.107.
- 7 Campioli A., *Il contesto del progetto. Il costruire contemporaneo tra sperimentalismo high tech e diffusione delle tecniche industriali*, FrancoAngeli, Milano, 1993.
- 8 Tatano V., *Tre conversazioni*, in Sinopoli N., Tatano V. (a cura di), *Sulle tracce dell'innovazione. Tra tecniche e architettura*, FrancoAngeli, Milano, 2002, pp.54-57.

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**Learning pre-modern  
Architectural and Construction Arts  
at the Faculty of Architecture,  
University of Rome Three**

Over a number of years, research released through a series of publications known as the *Manuali del recupero* ("*Restoration Manuals*", for Rome 1989, 1997; Città di Castello 1990, 1992, Palermo 1997), together with other parallel initiatives, has presented an integrated vision of the arts of pre-modern construction.

Just slightly more than 20 years ago, pre-modern building materials seemed untrustworthy to conservation and restoration professionals. The technology linked to these materials and the historic construction values themselves were perceived as a dying culture, unsuited not only to keeping pace with modern technological performance, but also inadvisable for conservation and restoration operations for historic built heritage.

In the conservation-restoration field at that time there was little attention to building techniques. Resorting to a somewhat drastic simplification, the restoration situation could be described as a pendulum oscillating between two extremes: on the theory side there was an ideological approach dominated (obsessed?) by the imperative of differentiating between the pre-existing *corpus* and contemporary revisions, while on the side of actual practice was a highly specialised scientific approach devoted to identifying the level and causes of deterioration and to developing hypermodern techniques of intervening on materials identified for "conservation".

In other words, as in other fields of human activity, restoration had seen the typical specialisation of the industrial era: on one side the conservation theoretician (not necessarily a materials expert) devoted to determining what had to be conserved in a given building and what could be manipulated; on the other side the hands-on specialist in the materials under restoration, due increasing respect according to his ability in developing still greater expertise in restoration techniques and knowledge of innovative conservation products.

By bringing materials, techniques and composite models of pre-modern construction to the forefront, the *Restoration Manuals* offered architectural conservation practitioners and restoration planners new instruments of awareness and procedures, refreshing an otherwise stagnant situation.

Over the twenty years since the first publication of the *manuali*, the rediscovery of the art of pre-modern building has developed in three directions, linked to three corresponding fields in the practice of architectural conservation. Satisfactory results were soon achieved in two, but not yet in the third and most important of these fields: the actual application of construction techniques.

The first result that was achieved can be identified as "inventory". Since the 1980s, the manuals have functioned successfully as directories of heritage assets to be preserved. Reflecting local construction features, each has contributed to development of an "antiquarian taste" for the language of each cultural area of construction. Wall construction, vaults, floors structures, roofs, doors and windows, flooring, fasteners and hardware, once relegated to the background of daily perception by the occupants of historic buildings, have been placed under the magnifying glass of accurate archi-

tectural documentation and are now recognised as heritage assets not to be lost. Even though there is still much to do in this field, today we can assert that there are only rare historic centres and communities where there are not sincere efforts to promote and capitalise on each instance of unique architectural identity.

Later, during the course of the 1990s, another important result was achieved in the systemisation of the collected knowledge. The principles and technological practices of pre-modern construction were re-evaluated and brought to the attention of technical planners as alternatives to the indiscriminate application of seismic standards inspired by the technology of reinforced concrete to all walled construction. The person of Antonino Giuffré was decisive to this accomplishment. Through his university classes and his campaigns with the "Association for Building Restoration" (*l'Associazione per il Recupero del Costruito*, or ARCo), he committed himself to updating and reaccrediting the new practices inspired by pre-modern techniques.

As to actually applying these practices: the results are still insufficient, today.

It is true that the application of traditional worksite techniques, which only a few decades ago could seem a traditionalist utopia, is today an expanding reality. Traditional techniques are not only applied by a few "enlightened" administrations, but are also rooted in the building industry, driven by a small but significant "niche" demand. A renaissance is under way in the production and installation of pre-modern finishes, and unlike a short time ago it is now not difficult to organise a worksite capable of furnishing materials and producing decent work in stone, brick, plaster, wood and traditional finishes.

But there is robust resistance to extending this renewal into the field of structural planning, a field in which modern industrial construction practices still prevail.

Indeed, it is well known that the relevant regulatory and legal responsibilities associated with undertaking an anti-seismic construction project induce conformity in techniques – a conformity that is more than understandable.

The actual norms in force, as well as new norms pending, guide planners down methodological pathways derived from the standards of steel reinforced concrete. They also delegate responsibility for accreditation of any restoration plans that deviate from the regulative norms to the professionals that sign off on the project. These professionals thus prefer to conform to the well-trod path of standards, calculations and planning as traced by the existing norms and supported by readily available software on the market.

It falls to university education to take the guiding role in forming the next generation of professionals soon to arrive on the market, creating awareness of conservation and restoration planning models that respect pre-modern construction. The crux of the problem is training those who contribute to the success of a restoration project and worksite, a problem whose solution has been much discussed (and little enacted).







In this paper we wish to present the results of the teaching experience, still growing, first developed between 1995 and 2006 in the Faculty of Architecture at the University of Rome Three. This school, founded and inspired by Paolo Marconi, applies the art of pre-modern construction in all its ramifications, in both lessons from the podium and in applied laboratories. Over a period of 10 years, at least two generations of students have been fully immersed in planning in the style of pre-modern construction arts, in courses such as the 4th year *Restoration Laboratory*, the 5th year course *Restoration of Historic Structures*, the *Bachelor's Thesis* in the same discipline, and the *Planning Laboratory* which forms part of the *European Master's - Specialisation Programme in Architectural Conservation and Structural, Urban and Landscape Restoration* (recognised as a Master's level II programme since 2003).

Our faculty prepares students for the widest scope of planning activity possible, following the integrative principles of contemporary architecture. In the conservation discipline, apart from instruction promoting awareness of history, restoration theory, and techniques for analysing the condition of historic architecture, the desire is to propose an approach to historic architecture that lies in its "re-planning". This doesn't mean the standard development of restoration projects for existing buildings, which proceed from the compulsory analytical work to proposals for modifications to conserve the fabric and facilitate its use. Instead, the approach is to planning "from the foundations up" for historic buildings that don't exist, or more precisely, that no longer exist.

"Re-planning" is understood as a mode of retracing the conceptual and construction phases of a building, showing the formative moments in which the building evolved into a more complex organism. The students are taught to discriminate between the changes that are consistent with the structure's preceding history, i.e. contributing to a "normal state" for the building, from those transformations that have negatively impacted either the structure or the people who use it.

This educational model derives in part from the work of Saverio Muratori, in the 1960s and Gianfranco Caniggia, from 1983 to 1987, with the exercises they offered in re-planning Rome's urban fabric, in *Architectural Planning* courses at the Faculty of Architecture, University of Rome La Sapienza. These courses applied methods for reading and re-planning the formative and transformative phases of a structure: from the subdivision of lands for the initial installation of first building types, to the gradual choking of space, additions, incorporations and over-layered construction implemented to obtain building types suited to the changing urban context.

Following this model, students are encouraged to take ownership of the integrative method necessary for historic buildings, planning as a pre-modern architect would have done.

This approach affirms the principle that historic architectural heritage will be better conserved and restored by architects capable of expressing themselves in the language of pre-modern construction arts, rather than by their colleagues who lack expression in such language.



Fig. 2



Fig. 3

Fig. 2-6

Restoration of areas at the foot of the Elio Bridge, Castle Sant'Angelo, Piazza di Ponte and Altoviti Palace.

Emilia Lacché's bachelor thesis project (2001-02), reconstructs the urban landscapes at both ends of Ponte Elio, an integral part of the Via Papalis. The project restores the original significance of Castel Sant'Angelo as Rome's fortress, once again isolated in its re-filled moat (fig 2). The project rebuilds Sangallo's bastions of Saint Peter and the church of St. John of the Florentines, returning the complex to its status following the 18th century works under Urban VIII. The return to original grade levels brings the doors by Giulio Buratti back to their original role in the frontal wall, instead of their incongruous current location below street level. At the opposite foot of the bridge, thesis projects by Livia Facchini and Daniela Matteucci (2002-03), accurately reconstruct the little known 16th century Altoviti Palace (fig 3, 4), demolished by the Tiber embankment work. It originally looked out on Piazza of Ponte St. Angelo, the apex of the first trident of streets built for the Renaissance urban plan, which led from the Rione Ponte to the Vatican (fig 5). The photomontage developed by Andrea Canale shows the Altoviti Palace reinserted in the modern context (fig 6).



Fig. 4



Fig. 5



Fig. 6

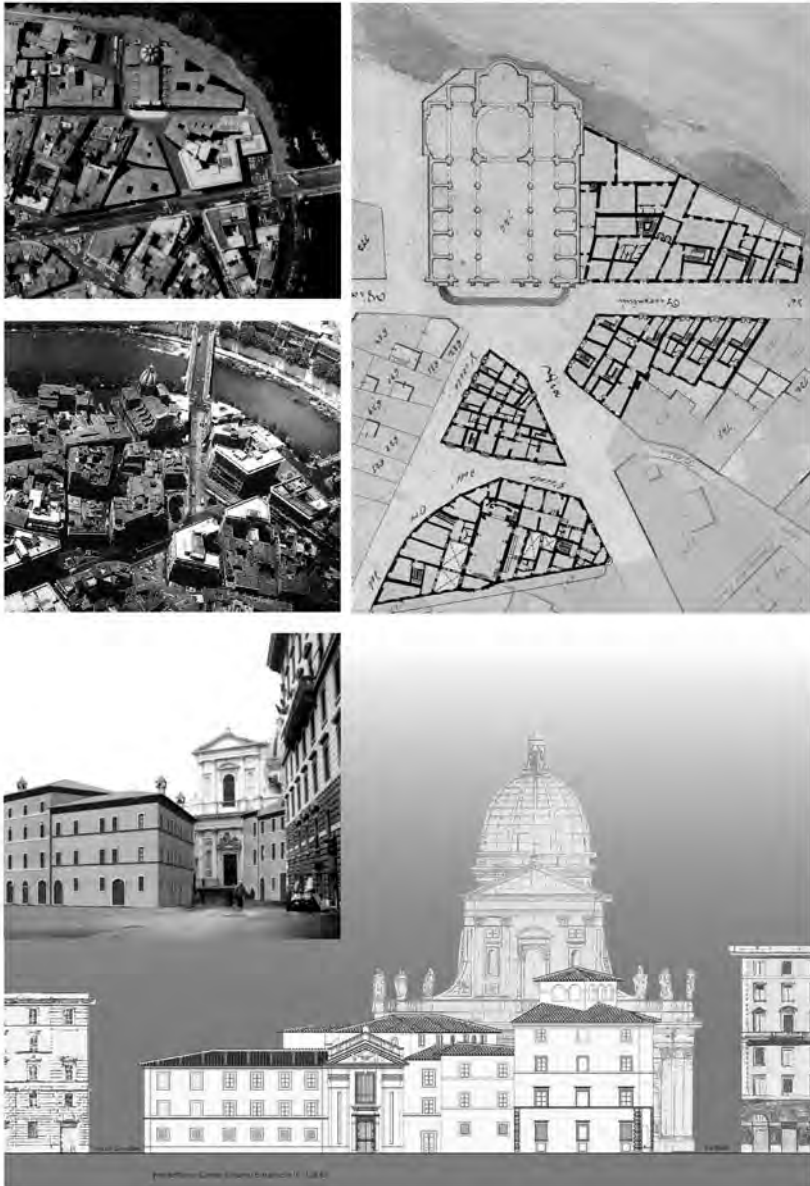


Fig. 7

Fig. 7-9

#### Restoration of the Ponte trident.

The Ponte trident, the urban street plan uniting Castle Sant'Angelo with Via Giulia and St. John of the Florentines church, was disfigured in two phases: the laying out of Corso Vittorio Emanuele in 1888 and the construction of the Prince Amedeo Savoia Aosta bridge in 1938, which connected Corso Vittorio with a new tunnel under the Gianicolo Hill. Three projects (fig 7) recreate the 19<sup>th</sup> century street elevation (fig 8, Bachelor's thesis by Beatrice Frattali, 1999-2000), restore the Renaissance structure of the small triangular piazza that framed St. John of the Florentines (Bachelor's theses by Roberto Agrippino and Carlo Baffi, 2000-01), and reconstruct the city block setting of the same church (fig 9, Bachelor's theses by Marco Crisciotti and Andrea Leidi, 2000-01).



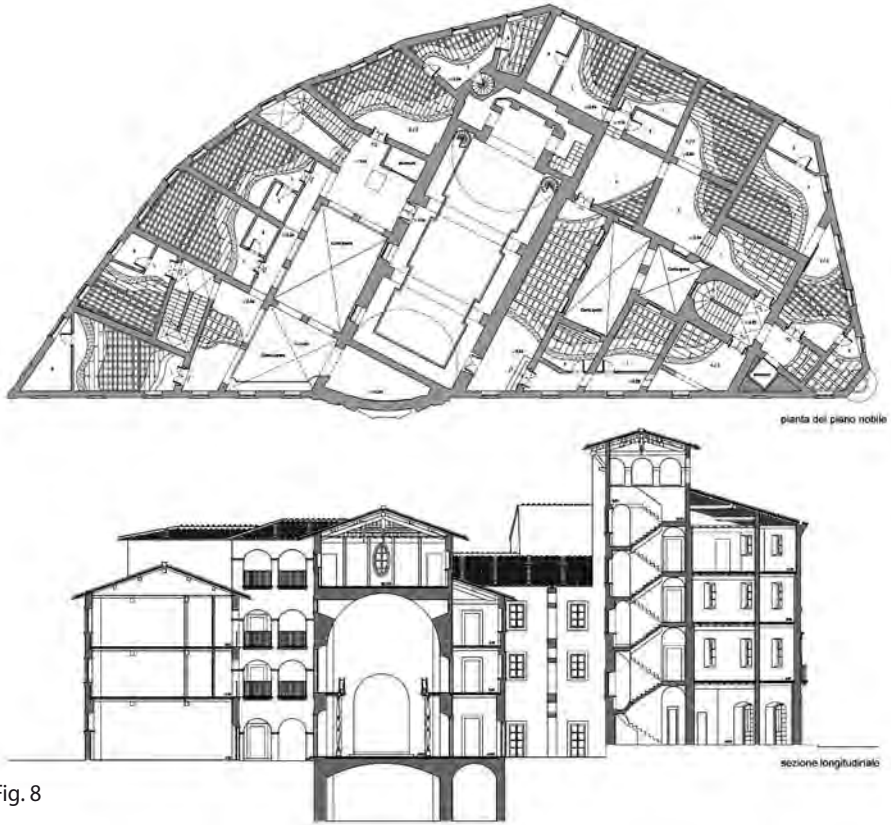


Fig. 8



Fig. 9

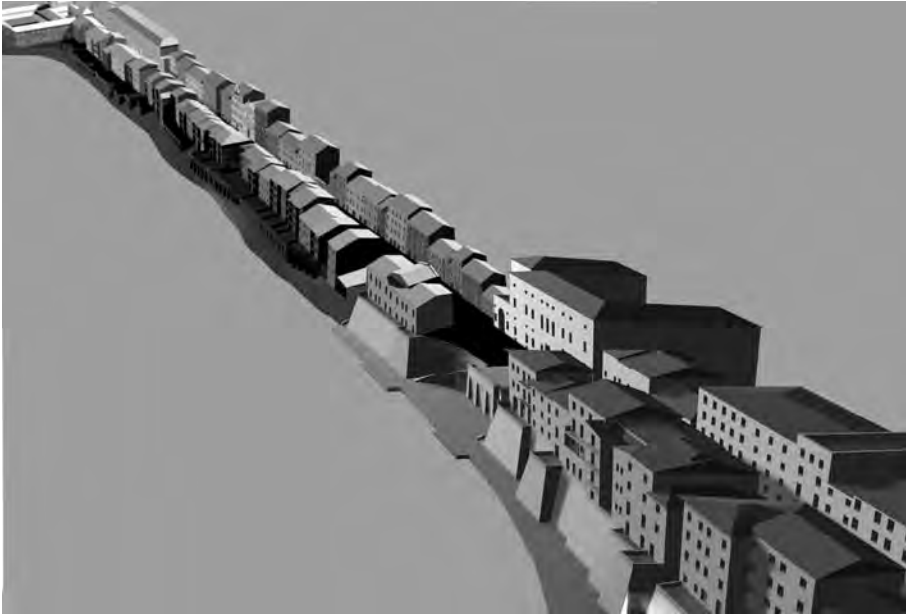


Fig. 10



Fig. 11



Fig. 12

Fig. 10-14

Restoration of Via della Lungara: reconstruction of the city blocks near the Tiber and Leonino Port.

The *Lungara*, the second *via nuova* under Giulio II, which corresponds to the location of via Giulia on the other river's bank, was reduced to a position below surrounding grade by the construction of the Tiber embankments, reduced in width along almost its entire length, and deprived of its frontage on the river. Bachelor's thesis projects by Ginevra Coppi and Simona Tonelli (2000-01), Morgana Biaggi and Cinzia Capitani (2001-02) propose the reinstatement of the original 12 metre street width, the reconstruction of the series of city blocks fronting on the Tiber and the port, as realised by Leone XII in 1827 (fig 10). The apartment blocks create a continuous and decorous urban frontage towards the street (fig 11) while presenting an animated but modest prospect towards the Tiber due to the loggia extensions and variable garden depths projecting towards the river (fig 12). The building techniques applied here are taken from the City of Rome "Restoration Manual" (fig 13, 14).



Fig. 13

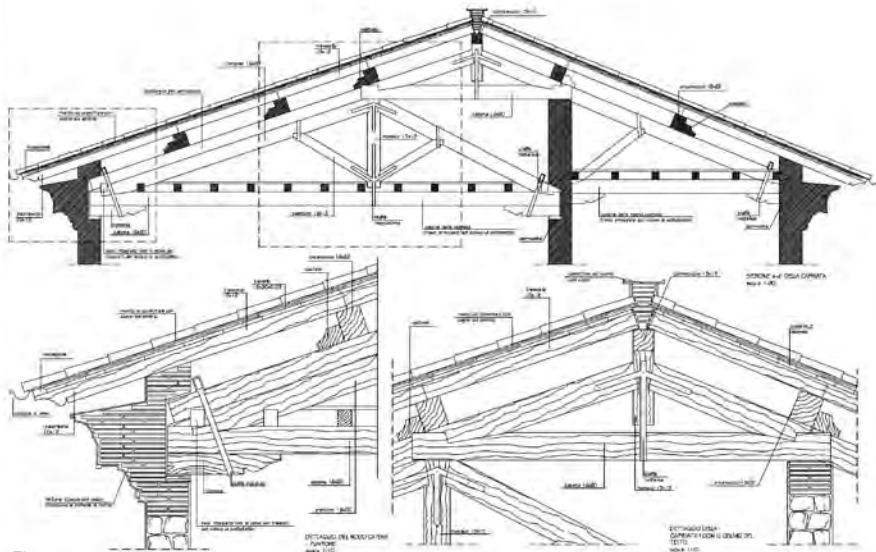


Fig. 14

The planning laboratories realise total immersion learning in the modes of planning and construction that formed the basis of the pre-modern city and its structures.

The first experiments in this type of learning proceeded in a more familiar manner, with the student choosing notable existing buildings (sometimes the subject of previous experience in another course), which they then subjected to a series of processes: ascertaining the state of conservation, analysis of structural integrity and deterioration, recognition of values, proposals for interventions, and finally an assembly of the total components of a restoration project.

It soon became apparent that this method could give positive results only through the form of a bachelor's degree thesis, for which the student is given time, support from teaching staff and the means necessary for an integrated experience, going through the complete procedure from analysis of on-site conditions to the final planning of details.

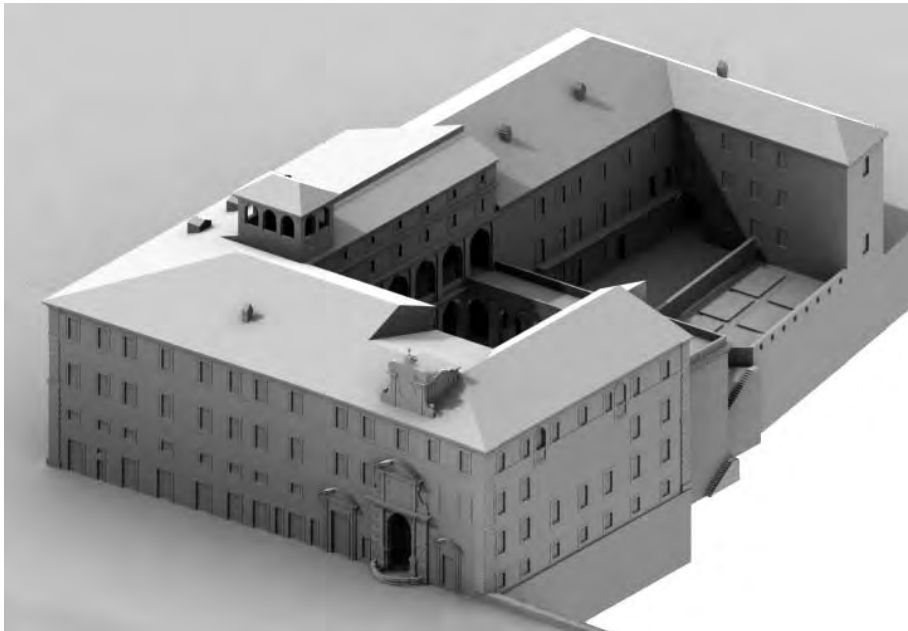


Fig. 15

Restoration of the *Cento Preti* hospice.

Constructed in 1587 by Domenico Fontana, under Sixtus V, the Beggars' Hospital marked the triple intersection of Via Giulia, Via dei Pettinari and the Sixtus Bridge, the obligatory crossing to Trastevere. The great fountain of the Acqua Paola, now located in Piazza Trilussa, had been located here since 1613 to mark the extremity of the Via Giulia prospective. With the construction of the Tiber embankment road the Hospital lost its riverside frontage and its suggestive link with the Sixtus Bridge. The bachelor's thesis project by Emanuela Mastrogiovanni (2001-02) restores the rapport between the Tiber and the bridge, reinstating the structural volumes, the porticoed courtyards and the progression of facades that opened towards the river. The great fountain also returns to its place (fig 15).



This body of time was not available in the smaller planning projects within the bachelor's level courses or in the planning laboratories of the master's level or post-graduate courses. The tendency of students to follow the traditional tracks of both their previous education and parallel courses (the sequence of analysis, evaluation, planning), inevitably led them to consume their entire time in analytical activities where they had already developed methodological confidence (bibliographic and documentary research, on-site verification of the documentation obtained, interpretation of modifications enacted over time, etc.).

The result was that the innovative planning that formed the actual goal and the novelty of the educational approach was being conducted hurriedly, along with only a simple application of restoration techniques to the building under study, without realising the true learning desired.

The change came about in the 1998 Master's programme, when it was proposed that the planning laboratory take on the theme of restoration planning for buildings that no longer existed, having been demolished in the course of the urban machinations that followed the selection of Rome as the new Capital of the Italian nation, in 1870.

The assigned teaching materials consist of maps showing the limits of the building, obtained from the land registers of the Pontifical State, and illustrative and descriptive sources brought to light during preparatory work by the teachers. Deeper research into historic documentation is not encouraged (nor is it prohibited). The students are obliged to take on the planning of the building "where-it-was, as-it-was", with the aid of suggestions by the teachers and with the help of a limited bibliography, of which the centre piece is the *Restoration Manual* of the City of Rome<sup>1</sup>.

Along with comprehension of information from the archival sources, the repertoire of building elements offered by the *Restoration Manual* permits identification of the building features suited to each planning theme. Tutors guide the students in the choice of structural and architectural elements adapted to the purposes of the subject buildings and to its urban context. The programme teaches the students to carry out their exercises in a pre-modern architectural language that achieves principles of "suitability" in the elements chosen (ceilings, floors and decorations) for each level and room of the building.

The students are assisted in defining the "normal state" of the building, or the structural state that represents the most organic possible development, with rarely coincides with the state of original construction and even less to the state that would have existed prior to its final demolition, which usually represents a 150 year accumulation of highly fragmentary transformations and mismanagement of spaces and partitions. This approach provides experience through an on-the-job learning method, which instead of following the traditional analytical-inductive path (analysis by professional discipline - projects by discipline - final synthesis), follows a synthetic-deductive path (building as organism, inserted in an urban context - relationship of parts and architectural languages - choice of appropriate structural elements).

Starting from the city registry of 1824, from the *Libri delle case* (registry compilations of building plans), from documentation ordered during expropriations and from prints, photographs, and other archival documentation, students have been guided to recreate buildings and environments decimated by the 19th and 20th century eras of both extensive and localised demolitions.

The numerous students and graduates who have chosen this full immersion approach to planning “where-it-was, as-it-was” have gained confidence with the structural types of the historic city and have learned to exercise the language of the architectural profession in all its temporally stylistic variations, from early Renaissance to late Baroque.

They have learned the delicacy of modulating these languages according to the importance and the use of the building: church, grand house, multi-story apartment building or smaller side-by-side house.

The theme proposed has always included a group of buildings significant to the urban context. Integrated planning has developed the building shell in step with the cohort structure.

Adjustments to the building function and operating plants to bring the historic building up-to-date have not been excluded but have never been given overall prevalence within the projects.

The segments of the city that have been “reconstructed” in this mode demonstrate a high degree of integration of urban planning with the forms and technological languages of pre-modern construction arts.

Drawing from this experience, we would like to use the illustrations that follow to highlight several bachelors’ theses dealing with segments of built heritage in the historic centre of the capital city, many of which are thematically linked along a *General restoration project for the Tiber River embankments*<sup>2</sup>. This assemblage of work brings into discussion the doubtful and incomplete layout of the so-called “*lungotevere*”, the riverside ways that sacrificed important neighbourhoods of Papal Rome, while leaving others isolated and humiliated behind the imposing relief of their embanked roads.

#### Notes

1 University of Rome Three, Faculty of Architecture, Academic Year 2002-2003

European Master’s – Postgraduate Specialisation in *Architectural Conservation and Structural, Urban and Landscape Restoration*

*Planning Laboratory Programme*

*Project theme:*

The project consists of urban restoration planning for one of the most important renaissance achievements in Rome - Via Giulia.

The setting of the central portion of the Pope Giulio II’s street was first devastated by the 19th century construction of the massive walls along the Tiber, and the street was then directly damaged by the urban plan of 1931. These interventions, neither of which was ever com-

pleted, brought about the present distorted layout, with interruptions in the historic street, poor connections to the river, and disgraceful modern shambles that are incompatible with Rome's urban decorum.

The scope of the restoration project is to reconstitute the lost city segment, with some necessary adaptations, but with rigorous respect for the architectural language of Roman tradition and with techniques drawn from pre-modern construction arts.

The exercise consists of two phases: the first consists of the urban restoration of the whole through the reintegration of the frontages of Via Giulia, the second consists of the reconstruction of demolished building volumes.

The potential planning themes for the completion of the second project phase are:

- The block between Via Giulia and Moretta and Malpasso Lanes
- One or both of the city blocks that once existed in the area presently falling between Via Giulia, Via delle Prigioni, Via Bravaria and Via St. Eligio.
- Reconstruction of the original frontage along the Tiber delimited by the river itself and the major roadway of Via Bravaria, Largo Perosi and Via di S. Eligio.

The architectural project will be laid out according to guidelines to be established with the teaching staff, based on documentation and figurative material either provided or referenced by the course. The structural planning, building techniques, materials, building elements and finishes will be developed in a manner adapted to each situation, from the basis of the types proposed by the *Restoration Manual* of the City of Rome, and from other bibliographic references and extant architecture indicated in the course of the programme.

*Project phases and products.*

- A. General urban plan (recommended scale 1:500), including elevations, ground level plan and plan of volumes, correlated with the immediate context.
- B. Architectural and interior space plans for a single part of the complex. Drawings will be in 1:100 scale and will present the ground and first floors, roof structure, elevations and a longitudinal section, including stairwell.
- C. Construction planning: the drawings may present the entirety (recommended scale 1:50) or use scales closer to actual dimension to present significant details of the object, architectural features and construction details of the proposed project, presented according to standards of the *Restoration Manual*. Isometric cross-sections and perspective drawings are appreciated.

The drawings, which can equally be prepared by hand or with computer assistance, will be presented in A2 format (42 x 59.4 cm) preferably in vertical orientation, on lined paper (40.6 x 58 cm grid) with a 3 cm. high title area at the base reading: "Università di Roma Tre - Facoltà di Architettura - Anno accademico 2002-2003 - Master europeo - Corso di perfezionamento in restauro architettonico e recupero edilizio urbano ambientale - Laboratorio di Progettazione, student name".

*Required texts:*

P.A. Frutaz, *Le piante di Roma*, Salomone-Staderini, Rome 1962

Guide rionali di Roma, *Ponte - IV*, Palombi, Rome 1981

L. Salerno, L. Spezzaferro, M. Tafuri, *Via Giulia*, Staderini, Rome 1973

Associazione Artistica fra i Cultori di Architettura, *Architettura minore in Italia. Roma, Crudo*, Turin 1929; (reprint Colombo 1990)

M.G. Corsini, *Tessuto e tipi edilizi a Roma*, Kappa, Rome 1998

G.L. Maffei, L. Bascià, P. Carlotti, *La casa romana*, Marsilio, Venice 2000

P.M. Letarouilly, *édifices de Rome moderne ...*, Paris 1840-57 (reprint IGDA 1994)

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**Gabriella Guarisco**

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**The Restoration Teaching  
in the Laboratories of the Second Year  
at the Faculty of Civil Architecture  
of the Politecnico di Milano**

## What And Why

The aim of the *Laboratories of architectural restoration* (in Italian "*Laboratorio di restauro architettonico*") of the second year at the Faculty of Civil Architecture of Politecnico di Milano is to awaken students of architecture, above all, to the respect of the old architectures like cultural heritage. The students who frequent the Laboratory (compulsory in the formative *iter*) start to study restoration of the existing building with all the knowledge offered them during the first year by the 3 basic courses of historical building conservation, that is *Fondamenti di conservazione dell'Edilizia storica*.

The general few information that the students have on this argument made very difficult to explain all the topics of the conservation of historical buildings. The activity of the one-year Laboratories is subdivided in *ex cathedra* lessons, in practices and, always, in direct surveys of ancient cities and building yards. All Laboratories, of 120 hours each, are integrated by two one-year thirty hour courses of Topography and Monumental architecture survey.

The Laboratories start from a rereading of the specifically cultural bases of "restoration" and "conservation", showing and explaining historical examples of "restoration" (starting from the case of the Carcassonne fortress, restored by Viollet Le Duc, to the one of Broletto in Brescia, restored by Paolo Marconi) and highlighting the aporia or difficulties that those restoration works showed and revealed about, especially, the authenticity, or truth, of the monument.

This first part of the course involves the critical reading of the restoration *iter* that, in the period between the Eighth and Ninth Centuries, was characterized by the different points of view and opposed theories of conservation architects (followers of Ruskin's idea) and restorers (followers of Viollet-Le-Duc's idea). These arguments are able to make comprehensible the cultural fundamentals of the School represented by



Fig. 1

Laboratory of architectural restoration, a.a. 2006-2007, prof. G. Guarisco

Villa Tedeschi, Parma. Rectified image of north façade.

Students: Giovanni Bonaretti, Tommaso Brighenti, Claudio Cini, Andrea Dell'Acqua, Stefano Sala.

these Laboratories. This phrase is not painless, because, very often, the information given by mass media shows restoration as a “return to an original splendour”, and the students have difficulty in assuming a critical position about it.

This first step in the Laboratory is fundamental for funding the basis for the subsequent practice. The critical commentary of the theory of the conservation fathers, like Hugo, Ruskin, Boito and, especially, Riegl, analysed with the contemporary misrepresenting works made by European and national restorers (D’ Andrade, Rubbiani, Beltrami, etc.), and, in the same time, the study of the scientific and cultural development (i.e. the technological innovation, the scientific discovery, and the changed analyses method of the artistic historiography), represent the students training cornerstone, because give the necessary conceptual basis for thinking the design on the historical constructions and their reuse.

Some words, like “authenticity”, “complexity”, “peculiarity”, “uniqueness”, “singularity”, etc, offer the key for understanding the design phase of practice.

In the Laboratories (there are two Laboratories at the Degree Course of Architecture of Construction and six at the Degree Course in Science of Architecture) the students have to face up to the case of research defined by the professors. The practice topics are decided with small groups of students who submit the example to the professor.

Rarely, the professor himself suggests only one practice topic for all students (small ancient cities in Lombardia, disused big industrial units, etc.). In both cases the students have to design a conservation project direct to obtain a compatible reuse and the respect of existing construction.



Fig. 2

Laboratory of architectural restoration, a.a. 2004-2005, prof. G. Guarisco

Molino del Cantone, Monza, (MI)

From the top: Rectified image; material decay survey; mapping of the conservation project on the south façade.

Students: Paolo Antonioli, Oriano Arrobbio, Alessio Saporiti, Laura Tosi.

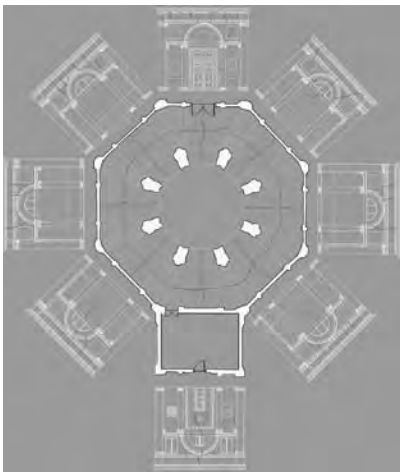
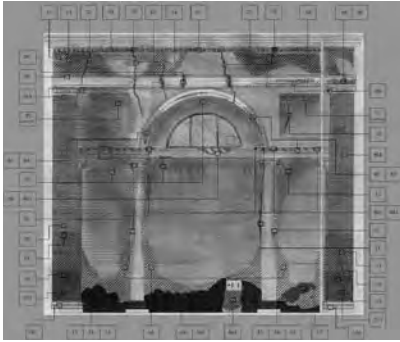


Fig. 3  
 Laboratory of architectural restoration, a.a. 2006-2007, prof. N. Lombardini  
 From the top: material decay survey; structural decay survey; 3D model and rectified images of the façades.  
 Students: Carolina Lucaccioni, Giorgia Menozzi, Silvia Peragine.

The fact - not negligible - that the students in the second year may find some difficulties in dealing with the Laboratory, especially in relation to the information offered by the Faculty during the first year of study, has involved several "adjustments" in the years (the Faculty of Architecture at Bovisa was one of the first Faculties in Italy to pursue the teaching autonomy from 2001).

In fact, while in the old regulation the courses of restoration were taught in the fourth year and students already knew the required information, the teaching at the second year has caused new difficulties due to the poor students capacity of researching and studying. At the beginning of the Laboratories of the second year, the difficulties of the teachers concern the same problems: the insufficient preparation of the students, especially on the geometrical building survey and on the drawing; both represent the actual difficulties of this teaching, not for making design, but almost for facing up the conservation topics.

The aim of the Laboratories is not to give a definitive skill on conservation, but they are intended (especially if we consider that in the Laurea specialistica exists, in the first and second year, the Restoration Laboratories that permit the student to prepare the second level degree thesis) to increase the students' interest and sensibility on the complicated problem of the building conservation design, also because it is impossible to solve the same complex problem with a teaching "marred" by information that cannot (and must not) be good now and forever (the "curse" of the manuals ...). That is, lessons, practices, surveys, help both a much more in-depth consciousness of the existent constructions and a listening and reading the building material in front of the transformation of the city and of the territory, in relationship with a good reuse



design that can join together both the necessity of transformation and conservation. This kind of design have to adjust according to the places, to the local constructive system, to the identity of the site, through a deep consideration on the cultural continuity and respecting the differences between ancient and new construction. The course target is to increase the attention of the students on the “conservation”, which is not the end of the project, because in the same time the student has to think the “designed of new” in a sustainable, autonomous, compatible and clearly recognizable way.

## **Who**

Eight professors teach in the Restoration Laboratories during the second year. Two of them teach in the Degree Course of Architecture of Construction and six are employed in the Degree Course of the Science of Architecture. Two of them are Associate professors, four are Assistant professor and the others are architect whose skill has been obtained with a PhD course or Master course (in Italian *Scuola di Specializzazione*).

Also the most of permanent employed (four on six) obtained the PhD. All the teachers are forty or fifty years old and they belong to the Dipartimento di Progettazione dell'Architettura or to the Dipartimento di Ingegneria strutturale at the Politecnico di Milano. Some of them are involved, also, in the administrative job for the Faculty.



**Gregers Algreen-Ussing**

School of Architecture  
The Royal Danish Academy of Fine Arts  
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**Summary of Educational Programme  
in Transformation and Conservation  
at Department 5;  
Architecture, Space, Habitation  
and Building Culture and of Research  
at the Institute of Building Culture**

Focus on training in architectural conservation and transformation has increased in keeping with the economic and political role of historical building culture, in Denmark as well as internationally.

In addition it is estimated that around 80% of future building activity in Europe will take place in historic surroundings. These figures include not only officially designated heritage like castles and manor houses but also buildings, or areas, that constitute spaces of financial or narrative value or that are in some other way open for further development and new utilization.

## **Studies in Building Culture**

In the field entitled *Bevaring af den Arkitektoniske Kulturarv* -conservation of architectural heritage- this resulted in a tripartite model for training.

It consists of a 3-year Bachelors degree covering the fundamental elements of architecture and common to the entire college. At the next level, this is supplemented by a 2-year specialized Masters-degree entitled *Studier i Bygningskultur*- Building Culture Studies – at Department 5 under Professor Tage Lyneborg. Finally there is the option of a post-graduate Masters, entitled *Nordisk Master i Arkitektonisk Kulturarv* – Nordic Postgraduate Masters in Architectural Heritage, established as a joint venture with the Schools of Architecture in Århus, Denmark; Gothenburg, Sweden; Oslo, Norway and Helsinki, Finland.

### **Bachelor Level**

During the 3-year Bachelor-course the foundations are laid for a basic architectural understanding of architecture and its history. The first year features exercises aimed at documentation and interpretation of a given site, area or building. This includes analysis of material, design and construction and a development of the ability to observe architectural space. The next year brings project-based studies focusing on additions to, or transformations of, a given building or area. The final degree project always involves a building-historical study, a programme and a project for an addition to an existing building or a building complex. Instruction is mostly provided on an individual basis at the drawing-board, supplemented by courses and quarterly presentations.

### **Masters Level**

At the Masters level, the basic skills from the previous level enable the student to begin specialization. The students put together their own two-year course using a personal study plan based on a theme defined by their department. The first semester this may include analyses of building-historical conditions or perhaps study at a level more advanced than that of the Bachelor programme. The department offers assistance on a consultancy-basis in the fields of conservation theory, building archaeology, analytic documentation and archival studies in connection with the projects selected by each individual student. The second semester is intended for practical experience, where those students who display the greatest interest and talent are encouraged to seek work in architects' offices that work with historic building culture. To this end, the department has begun building a network which currently includes a number of the most prominent studios working in the field. It is the experience of the department

that work-experience is the best introduction possible to both the field as a whole and its practice. The following semesters will often deal with more complicated projects including projects of a higher level of complexity, including a more thorough analysis of a particular historical building or area, or of a particular problematic that the students have encountered during their work experience.

## **Nordic Postgraduate Masters in Architectural Heritage**

The Postgraduate Masters constitutes the third part of the training in the field of conservation. It aims to provide commercially oriented further education for graduates with 5 years of experience. 6 experienced participants from each Nordic country: Denmark, Sweden, Finland, and Norway work with current issues gleaned from the participants' own practice and are juxtapose them with new, specifically situated research from the field of conservation brought to the programme by lecturers. In this way the Postgraduate Masters seeks to develop practical competencies providing participants with an insight into the delicate balance between the procurement of specialist skills and process-oriented leadership required to practice in this field.

## **Research in Transformation and Restoration**

Research work in this field is the responsibility of the *Department of Building Culture* (Head of Institute Professor Carsten Juul-Christiansen) under the heading of *Transformation and Conservation*. The department also covers the research fields of *Theory and History of Architecture* and *Theory and Design*. The three fields are part of a joint framework with departmental research constituting the basis for an overall training programme which naturally also involves the consultancy work at Department 5.

Research in this field is described in 4 overall themes:

*Building Culture and Architectural Transformation*

*Building Culture: Ideological Conservation Perspectives*

*Building Culture and Building-Archaeological Documentation*

*Building Culture: Materials, Construction, and Conservation*

Furthermore, there are PhD-stipends affiliated with this field of research. Each year a nationwide conservation seminar is held in cooperation with the other Danish School of Architecture in Aarhus and the Danish Ministry for Culture attracting 2-300 people from throughout the field. Finally, the Institute hosted a Nordic Conference from April 13-15 entitled *Building Archaeology Past, Present and Future*, with 170 participants from throughout Scandinavia.

At this point the initiatives described are open perspectives to be concretized by specific teaching and research in the coming years.

## **1. What and Why?**

*Building Culture Studies* aims to reinterpret cultural values as signifying potentials in a future-oriented architectural perspective; simultaneously conserving and renewing

building culture. This applies to all 3 levels of scale: town, area and building. Studies focus on the historical expressions and interpretations of architectural expressions and their locally situated significances, in order to form the base of a contemporary future-oriented architectural articulation.

80% of all future building activity in Europe will take place within existing built environments. At the same time environmental demands on construction and habitation are creating an increasing focus on maintenance, conservation and civic involvement, both when it comes to monumental architecture and the more ordinary. Historical building culture is of essential significance in this perspective.

## **2. How?**

Based on specific analysis of the regional articulations of building culture and their interference with the global integration of architectural disciplines, studies create a historical, constructive, and aesthetic platform for architectural formulations of local construction, remodelling and conservation. This aim develops student projects in a double twist through concrete studies of architectural theory and history on one hand and practical appropriation of urban- and building cultural characteristics in specific locations. This interplay between scientific analysis and architectural insight into localities is key. Architectural student projects are also situated abroad in cooperation with local institutions, expanding students' knowledge of local building culture with the appropriation of understanding of economic, political and social aspects through interdisciplinary cooperation.

## **3. Who?**

The architectural teaching staff is made up of equal numbers of practicing architects and researchers. Specific interdisciplinary skills are procured through specialized courses and lectures. Specialists are involved based on the central theme underlying the coursework: possible foci include specific levels of scale or their interrelation, like town, area or building, and/or historical or industrial building culture.

## **4. When and to What Extent?**

During the first 3 years students focus on gaining a fundamental understanding of building culture and its history. This level is obligatory for the entire school. Afterwards, during the 2-year Masters-level period, students may focus on more specific topics, including built heritage. Coursework is project-based, with students drafting individual projects and receiving the most significant part of instruction through individual discussions with their teacher. Lectures – obligatory at Bachelor-level and optional at Masters-level – supplement individual instruction. The last two years may include a period of studio work-experience. Quarterly project-presentations are held viva-voce, and after five years the students select their own degree project to complete their education.

## **Silo-conversion in Nordhavn Harbour, Copenhagen**

Church, Hotel and Second-hand Bookshop.

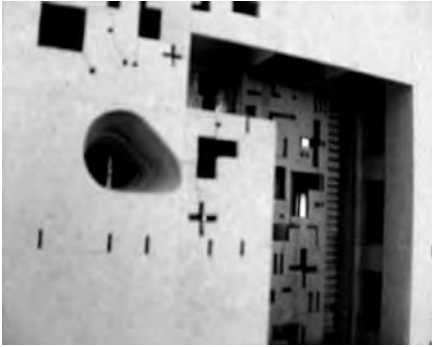
*4<sup>th</sup>-year Student Peter Rasmussen,  
Royal Danish Academy of Fine Arts, School of Architecture,  
Department 5*

The starting point for this assignment was the notion of the silo as – in every sense – an empty vessel; empty of its contents, of specific meaning, of daily life: Abandoned at the edge of the city in an area with a low degree of organisation that is echoed in the durable concrete structure with extremely limited interchange with the surrounding world.

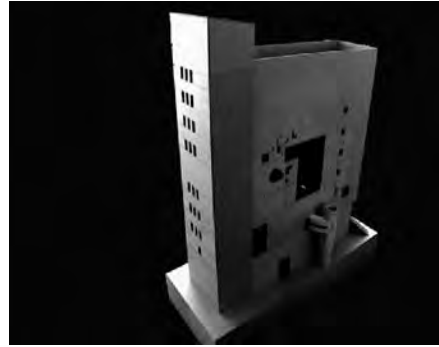
This was the background for a multi-programme intervention featuring three different parts indicating different possible developments for the silo and the harbour area, outlining new times, new potentialities in this continuously changing post-industrial space.



Photo-collage

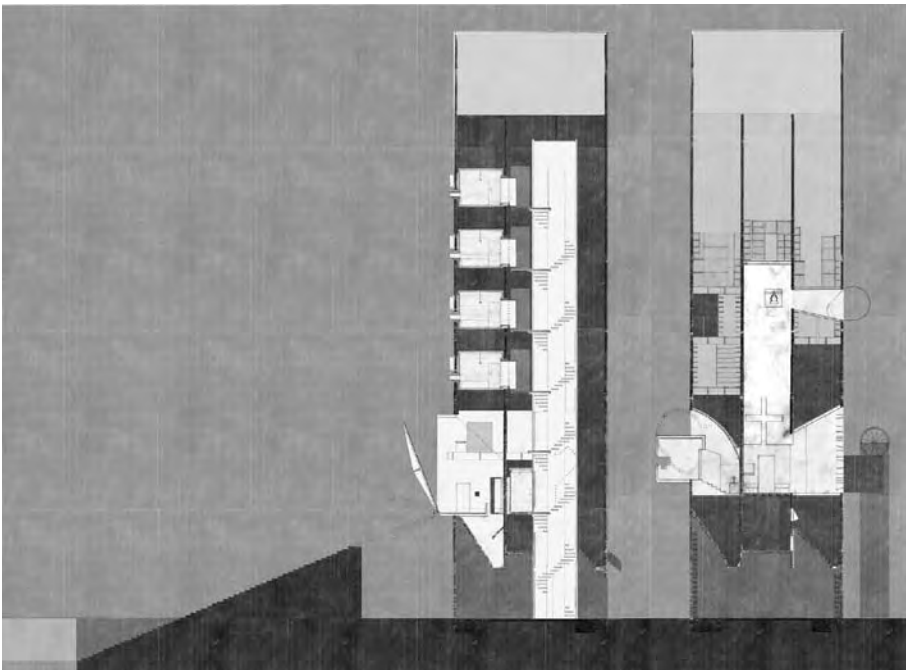


Detail, Facade.



Model

The three different co-existing programmes address different potential levels of organisation of the now-empty space: the used – bookshop utilizes the building at a lower organisational level than the existing one, the hotel creates a higher level while the church slots into the existing organizational level of the monumental concrete structure:



Two Sections (showing clockwise from top left: hotel, bookshop, church).



**Jo Coenen**

School of Architecture  
Delft University of Technology  
The Netherlands

**The Art of Blending**

## Introduction

This lecture is based on my varied experience of thirty years as a practicing architect, as a lecturer or professor at many different universities in Western Europe, as a supervisor and master planner in various cities, as the *Rijksbouwmeester* – the Chief Government Architect – and last but not least, on the basis of my most recent experience in Dutch building practice and as Professor of Restoration in the Faculty of Architecture at Delft University of Technology.

The word 'restoration' probably calls to mind old churches, castles or monumental buildings from the beginning of the twentieth century (fig. 1, 2). In my opinion, however, the academic field of Restoration should not simply cover individual architectural objects, but also urban construction and landscape development in general. The primary objective is no longer to build the new but rather to add to the existing structures. This requires analysis, identification and the study of the existing object, city or landscape silhouette and the adoption of a position. As we travel through Western Europe, we see all too clearly that the efforts devoted to individual objects are just pin-pricks compared with the rapid, irreversible advance of the rash of new buildings that has spread over our old European cultural landscape since 1950, like a juggernaut destroying everything in its path. While we work, painstakingly and in meticulous detail, on the restoration of countless historic monuments, huge fires rage uncontrollably beyond our horizons.

It is to be wished that the same close attention we pay to individual objects in an attempt to preserve their historical value would also be devoted to the numerous interventions involving all our historical inner cities and to the almost unnoticed transformations of historical vistas and silhouettes of landscapes, cities and villages which come under daily fire (fig. 3). The academic world is the last and very appropriate bastion facing these problems squarely, analysing them thoroughly and coming up with adequate solutions. To talk of art, of the art of blending, in this bulwark of rationalism may seem like an act of naive foolhardiness; nevertheless, I regard this as the necessary starting point for my task of preserving this precious discipline and transforming it here and there.

## Observations and considerations

Our discipline is at a crossroads, and this means that a fundamental expansion of its boundaries is urgently required. I estimate two-thirds of all forthcoming building tasks will consist of transformation at various scale levels. They are part of the far-reaching changes occurring in the practice of the profession as a whole. These changes result from such factors as increases in scale, foreign competition, globalisation and specialisation, including the rise of architectural recruitment agencies.

Furthermore we need to bridge an alleged gap in the field of architecture and town planning, namely the distinction between the architect responsible for new building work and the architect responsible for restoration: traditionally, the former is considered superior to the latter. This distinction does not accord with reality. Think of recent examples of the reuse of old buildings such as *Tate Modern* in London, designed by the architects Herzog and De Meuron, or the *Meelfabriek* (Flour Mill) in Leiden by Peter Zumthor (fig. 4).



Fig. 1  
Our Lady's Church, Breda, Netherlands, (15<sup>th</sup> century).



Fig. 2  
Zonnestraal, Hilversum, Netherlands, (architect Jan Duiker, 1925), restoration architects Hubert-Jan Henket and Wessel de Jonge, 1994-2002.



Fig. 3  
Recent transformations of the Dutch landscape by the construction of 'Vinex' suburbs.



Fig. 4  
Flour Mill, Leiden, Netherlands, restoration architect Peter Zumthor.

The discipline of Restoration needs a new, comprehensive research initiative embracing all levels: from the mortar used in bricklaying and its salt content to the changing landscape and the historical growth of the silhouettes of towns and villages. I think that there is no better place in which to work on the 'development of the art of architecture,' on one's sensitivity to architecture, than in the field of restoration understood in its widest sense. Close observation and analysis of monuments – including cities and landscapes<sup>1</sup> – reveal essential architectonic facts that are still valid. We have to ensure that the historical aspect will become a more fully-fledged part of the planning process.

We need to preserve architecture from the strong erosion by which it is currently threatened. The nearly soulless buildings that disfigure our landscape and our cities are due, among other things, to the economy, the high rate of construction and the associated building techniques for which craftsmanship is no longer necessary, and to the current building regulations and standardisation (fig. 5). Consequently new buildings are less elegant than old ones. Even architects are slowly forgetting some of the basic elements of their discipline. Decorative details that are now considered out of date such as pilasters, pediments and cornices, compositional handwork, symmetry and asymmetry, playing with materials and roof silhouettes, the segmentation of facades, proportion and scale are not just signs of craftsmanship but also add to the elegance of a building. Modern and above all present-day architecture has difficulty dealing with these attributes. Architects like Bedaux or Peutz, still possess this sensitivity that is based on their intensive study of the past (fig. 6).

In other words, there is a big gap in the field of architecture that can logically and effectively be filled by contributions from the discipline of Restoration. This will ultimately allow architecture to rediscover its position as an independent discipline with a key role to play in society and at the same time will increase the aesthetic content of architecture and town planning – two highly necessary issues.



Fig. 5  
Standardization in current  
architecture.



Fig. 6  
Town Hall, Heerlen, Netherlands,  
architect Frits P.J. Peutz, 1936-1942.

## The art of blending

Some insights take a long time to develop. For architects one such insight is the understanding that ideas and things are seldom created *ex nihilo* – the understanding that you yourself and the things you make are part of a larger whole in space and time. Although a search for novelty is of great importance in the development of a discipline, too much concentration on novelty tends to lead to concepts that either ultimately prove not to be new at all, that date very quickly or that turn out to be misconceptions. It is a strange paradox: the newest things seem to age fastest.

Perhaps we must stop to think in terms of a dichotomy between old and new. According to the Argentine author Jorge Luis Borges, this distinction is illusory: 'They therefore claim that the preservation of this world is a continuous creation and that the words "preserve" and "create", which are contradictions here below, are synonyms in heaven.'<sup>2</sup> This way of thinking leads to the art of blending.

By this we reach an important, liberating insight. Instead of seeing past, present and future as separate entities, in our discipline it makes much more sense to relate them continually to one another. This opens up a new, open way of looking at space and time, creates new possibilities and implies new working methods. The insight of connection and continuity demands a scientific attitude involving constant alternation between design and research at all scale levels, of the building, of the city and of the landscape. The resulting designs then become the product of a questioning attitude. All phenomena that present themselves are worthy of study: what is required is not exclusion but inclusion. By way of example, look at the impressive oeuvre of Robert Venturi and Denise Scott Brown. Their in-depth studies of apparently unimportant spatial phenomena, such as Las Vegas, have enriched the vocabulary of modern architecture and substantially extended our thinking about such matters.<sup>3</sup>

Taking this idea one stage further, we know that buildings, urban neighbourhoods and towns can be more easily understood as structures that are stratified in time rather than as static objects. The development of this concept has its own lineage. John Ruskin (1819-1900) introduced the idea of the continuous history of the built environment with the same means. In his analysis for instance of the Via Appia, he showed how the same stones from the old road were used to create a series of new human histories without leading to the complete disappearance of the road. This English viewpoint on restoration starts from an awareness of the simultaneous presence of change and permanence. The studies of urban transformations performed by the Venetian school (e.g. Muratori, Rossi and Aymonino) starting in the 1970s, but also by Gregotti and Tafuri and currently by Ilaria Valente<sup>4</sup>, have had a major influence on thinking in this field – including my own thinking. Attention to typology, the morphology of the site and social developments makes the growth of cities much easier to understand.<sup>5</sup> In Fortier's atlas of Paris<sup>6</sup>, it is shown with reference to Rue Réamur, Rue du Faubourg and Montmartre how one layer was skilfully superimposed on another in a tailor-made pattern.

While any new edifice has an existence of its own, it must at the same time fit in with existing structures. (fig. 7) Even the most revolutionary of architects cannot disregard appropriateness. The search for 'fit' is a central preoccupation of our profession. It requires a sensitivity that has to be developed by designing, asking questions, studying and returning to the design. The concept of appropriateness is best expressed by the words of Charles Eames: '[...] but in addition they must provide the trainee with a questioning approach and a nose for appropriateness; a concern for quality which



Fig. 7  
Napels, Italy: continual metamorphosis of the existing [p. 36].

will help him through the immeasurable relationships [which he will have to resolve in order to arrive at the design].<sup>7</sup>

### **Analysis and remedy**

The necessary scientific frame of reference compels me to a rearrangement of the content of the discipline into three main domains: Modification, at scale levels extending from material to building, Intervention from the level of the single building to the building complex and Transformation extending from the level of the building complex to the silhouette of the town or village as a whole and to the entire landscape.<sup>8</sup>

#### *Modification*

The discipline of Modification is of technical origin and builds on classical restoration work. It concerns the study of the 'bricks and mortar' of the building – or today, of the concrete and steel structures at the core of a building. The authenticity of the building, depending largely on the choice of materials and colours, the method of construction and the detailing, is at stake here. This discipline gives students an invaluable introduction to the architectonic effect of materials and colours, and – another important issue – their aging. Research in the archives is important to determine which template needs to be used for the restoration: is the oldest look always the most authentic, or do the most recent additions also have an independent right to existence within the structure as a whole?

New questions are also arising at the level of modification of historic buildings in connection with climate-control systems, which on their implementation are often found to have far-reaching consequences for other structural components. Comparable questions are being raised in connection with interventions in monumental public buildings in the interests of protection in relation to terrorist threats and art theft.

I sometimes think that some of our historic buildings are surrounded with too much attention. Some churches are completely repointed, for example. In the Netherlands for instance the need for such an approach is steadily diminishing since the entire country has already been entirely restored: the remaining work consists of just a pin-prick here and there.(fig. 8) Moreover, this is an illustration of our incapacity to accept an aging world: our profession too is not immune to that all-pervasive 'fore-



Fig. 8  
Golden imperial crown on Westertoren [1638], Amsterdam, Netherlands.



Fig. 9  
Teylers Museum, Haarlem, Netherlands, renovation architect Hubert-Jan Henket, 1993-2002.

er young' feeling. Of course, the attention must stay, but I do not believe that we can make this task the core of our profession: Modification gains much of its significance from structural interventions involving an overlap with higher scale levels. In other words, we are in the process of overstepping the boundaries between modification and intervention, a blending of these two sub-disciplines.

### *Intervention*

The core task in the field of Intervention is the exploration of the possibilities of making old buildings fit for new uses. An architect may see unsuspected possibilities for new use of space in old buildings, which can lead to stratification of buildings very similar to the stratification of cities. This more imaginative approach can sometimes conflict with the more evaluative attitude of the heritage specialist, whose main concern is with determining the value of a building from a cultural-history perspective. This is where the domain of <sup>®</sup>MIT has an interface with ethics: how far can we allow ourselves to go with intervention, or must there be more emphasis on maintenance or reconstruction?

There is no better way of learning how to understand architecture than by studying old buildings. In the process, you will come across familiar facts like the division of buildings into a constant part (the support) and a variable part (the infill), which we recognise in the theories of John Habraken<sup>9</sup>, the work of Louis Kahn and more recently in the master plan for the redevelopment of the industrial monument the *Meelfabriek* (the Flour Mill) in Leiden by Peter Zumthor. Inventive clients also support this principle by commissioning the development of 'solids' where a distinction is made between the permanent part of a building and the changeable part. (fig. 9)



Serious architectonic knowledge of the facade, the surface that intermediates between the interior and the city, can be developed very effectively by a study of old buildings. This is an excellent way of learning about such things as proportions, window openings, the effect of depth, detailing, facade coping, the silhouette of a building, the possible methods of supporting it and so on.

Intervention also needs innovative expert systems based on research into the reuse of buildings that extends beyond the limits of the individual project. Systematic study of the conversion of offices is required and also of related topics like the redevelopment of churches and industrial premises, and the possibilities of adapting old residential complexes such as gallery flats to meet modern requirements of accessibility, comfort and, last but not least, architectonic allure.

A method that lends itself very specifically in the field of intervention is that of 'learning by design'. Despite the opportunities currently offered by photos, computer-aided graphics and rendering, the importance of drawing by hand must not be underestimated. In the first place it is known that drawing and colouring an object or space makes it possible to remember it much more intensely than a single visit. I believe that repetition and '*imitation*' are still essential in learning a profession. Secondly it has been found that new associations can arise while one is sketching and colouring, thus allowing the design process to progress in unexpected ways. The sketches produced by Le Corbusier provide a fantastic illustration of this. Moreover, the sketch is a very effective means of determining the colour and materials mix of a building – one of the architect's most exacting tasks. While the colours in the sketch may not seem an exact representation of reality, they do give the architect precisely the right feel for the atmosphere, colours, texture and degree of plasticity of the design. For example, the drawings of Mario Ridolfi<sup>10</sup>, a post-War Italian architect, reveal an almost obsessive attempt to capture the materials and texture of the building on paper. Finally, the sketch gives a picture of the search for and the complexity of the design process and hence of the architecture. The sketch can be used as a basis for discussion with others, including the principal of the various steps in the design process. Computer graphics or a rendering can naturally be useful at the end of the design process, but serve no function during that process; indeed, they can even be counterproductive. These modern presentation modes suggest that no problems arise during the process of creation, and that is far from the case. While architecture aims at synthesis, this does not generally occur, either in space, time or mentally, at the wave of a wand. (fig. 10)



Fig. 10  
Sketch Bonnefantenmuseum,  
Maastricht, Netherlands, Aldo  
Rossi, 1989.



## Transformation

When I speak of transformation in this context, I think in the first place of the enormous changes that take place in the silhouettes of towns and villages of the Netherlands. Right next to the farms with their characteristic roofs, villages and church spires are high-rise buildings put up in the 1960s and brand new industrial estates with their little white boxes. The landscape has lost its balance. Does that actually matter? After all, everything is subject to change. I have already made a plea for a stratified approach to urban planning. Cannot the events I have just been describing be regarded as a slightly different form of stratification? If we look at pictures of Paris before, during and after Haussmann's interventions, we can hardly believe our eyes.<sup>11</sup> Of course the mixture of building excavations and old-world village charm that the Dutch painter Jongkind encountered when he arrived in Paris in 1846 had to make way for the grandeur of a modern metropolis.<sup>12</sup> Is the negative judgement about the changes currently taking place in the Netherlands just sentimentality, or have I got hold of something that really bothers people? Is the constant harping on the unique tradition of the seventeenth-century Dutch landscape painters as an argument for maintaining the *status quo* not a bit hypocritical, showing a lack of sense for modern reality? I don't think so. We are overwhelmed by the changes winding their way throughout the Netherlands. No one can control these changes – and no one (apart from a few smart land speculators) is particularly happy about them in the long run. No one has really examined the issue of how the old and the new can co-exist. All parties concerned, from the national and local authorities to the various interest groups, take a sectoral view of physical planning; there is no overall direction. The result is a disjointed public space without direction. And because the Netherlands is so small, so flat and so vulnerable, we cannot allow this state of affairs to continue. Making people aware of this problem is the first step towards solving it.

The solutions will be largely found in structural planning, based on an in-depth vision of this part of Europe and developed by interdisciplinary investigation. The concept of the Delta Metropolis offers a great many starting points; it demands physical-planning proposals.<sup>13</sup> In any plan of this kind, a balance needs to be found between making clear choices and leaving options open. The complexity of this interplay between decision-making and flexibility means that various alternative plans will have to be tried out. What we need is plans in which the alleged tension between idealism and realism is resolved. Do not forget that realism needs a touch of idealism, just as idealism is no good without a healthy dose of realism. The history of the development of the Netherlands is an excellent example of what I am talking about. For example, it has been claimed that the concentric system of canals built in Amsterdam in the seventeenth century was based on Plato's description of the ideal state of Atlantis.<sup>14</sup> Be this as it may, this plan has led to one of the most beautiful cities in the world. To turn idealism into realism is something for the long view. For example, the current work of Rem Koolhaas can be seen as a continuation of the exceptionally idealistic plans for a New Babylon drawn up by Constant Nieuwenhuis in the 1960s. (fig. 11 and 12) And is the present large-scale development of the South Axis in Amsterdam with the new Amsterdam South/WTC main-line station not simply a continuation of Berlage's Plan South from 1917?

A number of topics in the field of Transformation demand a systematic multidisciplinary approach within the previously mentioned expert system. In any case one of

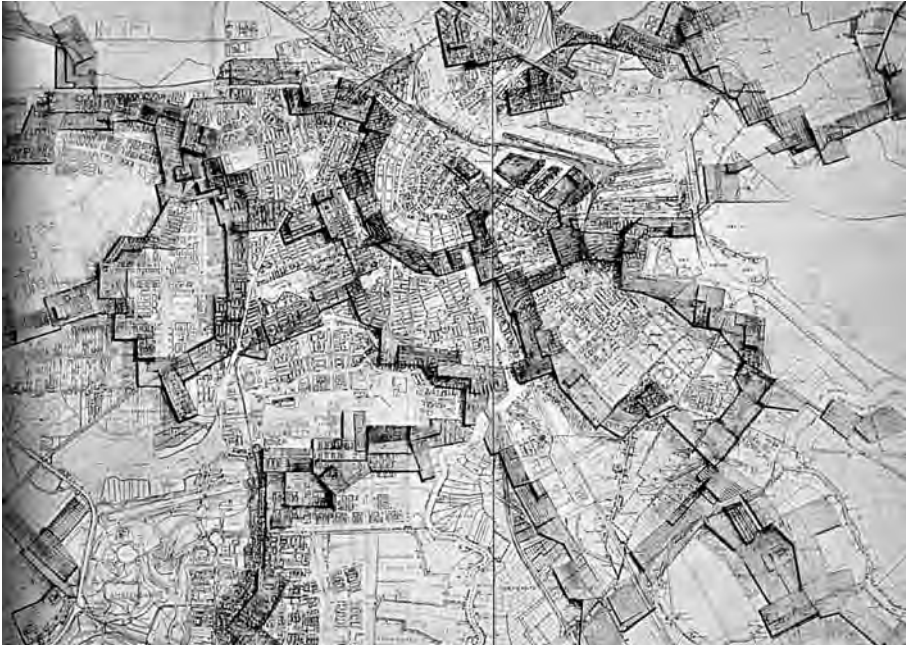


Fig. 11  
New Babylon, Constant Nieuwenhuis.



Fig. 12  
Delta metropolis, Rem Koolhaas.

these is the filling in of the content of the Delta Metropolis concept. A great deal of in-depth analysis is needed to develop a vision that will allow us to put into place the various pieces of this jigsaw puzzle such as plans for infrastructure, nature and water, industry parks and office locations, residential areas and possibly big new shopping complexes situated outside the towns, leisure and entertainment areas and multi-purpose facilities. While such a large-scale plan naturally involves a lot of conflicting claims, so that many choices will have to be made before the overall concept can be translated into an open set of land-use plan proposals, if successful this undertaking could inject a great deal of cohesion and synergy.

## Conclusion

In our built environment there are two forces that exert a major influence on the way we perceive the existing urban fabric and buildings. One is appreciation of our heritage and the feeling of security we get from the past, and the other is the force of change that generates feelings of expectation, astonishment and hope. Especially during the past few decades, we have been subjected to an unprecedented dynamic process of social and cultural change due to such factors as digitalisation, globalisation, commercialisation, individualisation, mass migration and the like. This is associated with an enormous need for novelty and at the same time with a strong need for security and the growth of organisations dedicated to the preservation of our heritage. I see countless cases where these two trends of dynamic change and conservation, collide violently with one another, while if they worked together they could produce magnificent results. It is important to think in terms of both transformation and continuity, to think about our existing building stock, and of how new strains can be successfully grafted on to this. Love of good style is to be found in all generations, and we certainly have an enormous need for it in the architecture of today. Where do we stand now? Why do we get a sinking feeling when people ask us about the city of the future? This was a topic we could discuss with such confidence in the first half of the previous century. New technologies were seen as an enormous challenge, an enormous opportunity then. Now we are ashamed of them and for that purpose we look beyond the confines of the Netherlands. Our own self-confidence in what we make has evaporated, and by way of overreaction we want to preserve everything by spraying a thin film of plastic over it. The tendency to restore monuments to perfection is almost compulsive nowadays though we know that this attempted escape from time will never succeed in the long run. We can achieve a better, more relaxed attitude by enlarging the assignment. What we really need is not conservation at any cost, but vital reuse, like that of the stones of the *Via Appia* that have been reused in countless configurations but through which the entire history of the road continues to resound.

## Notes

1. Wouter Reh & Clemens Steenberg, *Sea of land*, Amsterdam 2005.
2. Jorge Luis Borges, *The history of eternity*, 1953.
3. Robert Venturi & Denise Scott Brown, *Learning from Las Vegas. The forgotten symbolism of architectural form*, Cambridge 1972.
4. Ilaria Valente wrote about the genealogy of the tradition of urban analysis in Italy in the following publications: 'Per una critica degli studi sulla morfologia urbana in Italia', *Quaderni del Dipartimento di Progettazione dell'Architettura*, nr. 4, 1987, Milan, p. 63-64; 'Morfologia urbana. Una nota bibliografica', *Urbanistica*, nr. 82, February 1986, p. 96-97 and 'Continuité et crise: les études sur la morphologie urbaine en Italie (1959-1975)', Pierre Merlin et al. (ed.) in: *AA.VV., Morphologie urbaine et parcellaire*, Presses Universitaires de Vincennes, Saint-Denis 1988, p. 75-80.
5. 'The Grounds of typologie', *Casabella* (1985) nr. 509/510.
6. Bruno Fortier, *La métropole imaginaire; un atlas de Paris*, Paris 1989.
7. Charles Eames, 'Designing a Lota', *Architectural Design*, London, September 1966.

8. These three, MIT, form the body of the discipline of Restoration<sup>®</sup> for which the<sup>®</sup>MIT Research Centre of the Faculty of Architecture of Delft Technical University was established at the beginning of 2006 and of which Jo Coenen is the scientific director.
9. Koos Bosma, Dorine van Hoogstraten & Martijn Vos, *Housing for the Millions, John Habraken and the SAR (1960-2000)*, Rotterdam 2000; Stichting Fonds voor beeldende kunsten vormgeving en bouwkunst, *John Habraken Oeuvreprijs 1996 Architectuur*, Amsterdam 1996.
10. Jo Coenen, 'Een kwestie van stijl', *Forum voor Architectuur en daarmee verbonden kunsten*, 1984-1985, nr. 2.
11. Pierre Pinon, *Atlas du Paris haussmannien: la ville en héritage du Second Empire à nos jours*, Paris 2002.
12. John Sillevius et al, *Johan Barthold Jongkind*, Zwolle 2003.
13. See e.g.: *Tracés 14, Deltametropool, un manifeste*, Lausanne 2003. This includes explanations of the plans of Luigi Snozzi and Rem Koolhaas for the Delta Metropolis, as organized by the then Chief Architect of the Dutch government, Jo Coenen.
14. Boudewijn Bakker, 'Het geometrisch ideaal en de Amsterdamse grachtengordel', *Raster* 81 (1998).

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**Project-centered,  
Construction-centered Design  
in the Training of Architecture Students**

The architect designs and builds architecture and this is what his education supposedly prepares him to do. It indicates the instruments and methods, teaches him the history; it explains the reasons and illustrates the relationships between intention and practice; it trains him with repeated exercises. As a rule, it does all this with the "project" at the center of the training program, as it is undoubtedly the central focus of his activity as an architect, the means whereby he can best express his skills, and in the best of cases, even communicate his "feelings".

All too often, however, this concentration on the project is not followed by an equal concentration on "construction". On the one hand, the "project" only goes as far as the themes of composition, problems linked to figurative aspects, spatial articulation and functional organization. On the other, the direct experience of building as observation, study and analysis of architecture, carried out first hand, does not seem to be taken into serious consideration by the educational exercises. In many cases, the schools have gone so far as to exclude even the initial experiences of contact with the building site like those provided by architectural "surveying" and "drawing from life".

This induces the student to view this part of his instruction and experience with undue detachment, whereas it marks the transition from concept to the reality, from an imagined building to a concrete one, and thus he will fail to fully understand that the project is only the "instrument", albeit indispensable, to achieve what is, or should be, his true goal: construction.

The art of composition obfuscates the "art of building" and leads the student to think that the aspects of the project having to do with technology, the science and techniques of construction, installation and calculation, are merely instrumental, merely "practical" problems that can be solved by technical means. Almost as if their contribution served "only" to secure the *firmitas* or other "collateral" aspects, while the primary goal is the "significance" of the architectural work.

Not to mention his disinterest for the construction site, that leads him to underrate the importance of the actual construction work in erecting the building and which, in turn, leads to other areas of neglect: towards the world of production, even only in terms of materials and products; towards the role of the enterprise, in terms of equipment, instruments and organization of the work; towards the role and value of the artisan, in relation to potential and practices.

Then there is, inevitably, an indifference in the project exercise, to the entire body of legislative requirements.

The result is an unjustifiable separation between related areas of knowledge, all of which are proper to the activity of the architect, that should instead be integrated, even as they are presented in the course programs, because they are essential for the application of a method as elements in every project design that has construction as its goal.

There is another important gap in the student's training: analysis of the construction project report. Yet it is just on this aspect that the students concentrate most of their expectations, almost immediately transformed into disappointments and then into criticisms as, from the study to the profession, they are forced to measure their lack of preparation when it comes to knowing how to build, as opposed to knowing how to draw up a project. They lack the indispensable knowledge of how to take those first steps at a construction site and turn their education into practical experience.

In the schools, in short, we see a widespread inattention towards architecture as real buildings, perhaps capable of lasting centuries just thanks to the principles that have governed the project design and guided the succeeding stages of construction. It is as if the schools had become indifferent to the outcome of the project and, what is worse, no longer care about the destiny of the architectures, once they have been built, aside from the effect they may have on the clients, users and public for which they were built, or whether they correspond to the needs and expectations they had expressed in one way or another. What starts as neglect of the themes of construction and maintenance, soon leads to neglect of the ways in which a building can face and withstand the test of time.

In this way, the school encourages the wholly unrealistic belief that the passage of the project through the worksite, to become a building, is a linear, one-way process. As if the project could deal with and resolve every question and already contained in itself all the answers and the solutions to all the questions and problems that the worksite always poses. As if the worksite "time" could not add a depth capable of prompting changes with respect to the project choices made, revealing itself in this way to be an "ally of the architect". In short, the development of this entire step is left out and the student has no way of knowing how much it is based on the interpretation of the project documents, an interpretation in which the architect, the client and the construction company all participate. No one ever seems to remember that the worksite is where important decisions are made, with respect to the timing, order, methods and procedures of construction, that must be measured against the often unruly pace of the works and affect the outcome in substantial as much as in formal terms. Affecting the consistency and thus the "durability" of the work.

Anyone who practices the architect's profession knows very well, however, that this is a path ridden with obstacles, with a tremendous flow of traffic both ways, where spot decisions often have to be made in response to unforeseen situations, requiring reconsideration and changes that may have major effects on the forecasts, causing the architects, designers and project managers any number of problems.

Neglecting or even only underrating the role of the worksite gives the student the mistaken impression that once the project has been completed it can, indeed must, remain immune to change and alteration, crystallized in the "form" that the architect has given it, as if it were only the brilliant expression of an idea.

On the other hand, there are many who believe that the originality of a building does not reside in its concrete realization, but in the project drawn up by its architect. From this it follows that "old", for a building, is that which perpetuates "its design" through the continuous destruction and renewal of the perishable parts. In this way it should be possible to "repair and reconstruct" a building without losing its uniqueness, and to "complete or rebuild" it would be "theoretically" the only possible response capable of doing justice to all the commonplaces connected with the subject of restoration. On the practical plane "the only way", indicated to us by the history of architecture.

By attributing the originality of a work of architecture to the project designed by "its" architect, we have begun to cultivate the idea of "originality" targeted on the "norm", recognizable through the evidence provided by instruments tested in the "interpretation of a city": the values of permanence and immutability of the ancient city have become concrete, leading to the definition of a type model that has then



induced us to list “exactly what is unalterable, what is alterable and what is new to introduce in the ancient organism”. We have gone so far as to believe that the realization could be repeated more or less faithfully; to replace masonry, woodwork, finishing, up to the limit of being able to “reconstruct entire lost buildings”, as if it were enough to repeat “one more time” a model already repeated in the past and known with “sufficient” accuracy.

The distraction towards architecture as constructed reality, legacy also of the opposition to that domination of the constructive aspects over the principles of composition that widely ruled architectural culture in the 19th century, has caused a number of shortcomings that affect the overall training of the architect.

It is, indeed, only the direct experience of building that enables the architect to fully perceive the spatial qualities of a building, its relationship with the light, how it fits into the environment. This is what educates us to recognize materials, and the different methods of use, and enables us to understand how a structure “works”, the techniques used to build it and the reasoning behind its calculations. This is what enables us to grasp the effects in real life of the principles that, at the time, guided our project choices, and allows us to evaluate them. Moving between motivation and outcome, ideas and material responses, knowing and doing, we grasp how time is “the soul of architecture”, because it is indispensable to perceive and “experience” it in its spatial articulation. The work lives in time and carries its indelible signs: over all else, that experience reminds us that it is the physical presence of a building, its being *here and now*, that is the foundation of architecture. That makes it, among other things, the primary and irreplaceable source to study history and with respect to which every other source becomes “hearsay”. It is the given, precisely, that “distinguishes” the History of Architecture.

No representation is sufficient, nothing can replace direct experience. We have to go ourselves, we have to be included, become and feel part and measure of the architectural organism, we must ourselves “move inside it”, all the rest is “instructive, necessary in practice to our intellectual stimulation”, but is a mere allusion and preparation to the time in which, we ourselves will “live the spaces” with our entirety and full understanding.

The lack of familiarity with the actual act of building creates gaps in all the disciplines, but it is more obvious and more apparent during restoration, and thus when it is effectively put into practice.

When it comes to restoration, direct building experience, and everything that goes with it, is indispensable. The direction of study is reversed: it does not go from the drawing to the product, from back from the study of the existing building. The first aspect and center of attention is the building, with all the richness of its spatial and figurative articulation (elements of the “architectural composition”), the materials chosen, the techniques applied, the practices followed to build it, its signs, its contradictions. These, taken together, are the expressions of the project, the outcome of the worksite, and the testimony of the time that has passed; as a whole, they characterize the building and make it unique, personal. The study of buildings is always an extraordinary, unique intellectual adventure, and it is the basis of the work to be done, to understand the architecture on which we must intervene and to evaluate the effects of time on its structure.



We could go so far as to say, as a matter of fact, that the “subject of restoration” comes just from that set of changes that have occurred in time and that the building has experienced, or undergone, changes that pose serious problems, whether they are additions or removals, because all change affects the architectural sphere. Architecture, construction, time.

When the student begins to study restoration, he will be forced to come face to face with the many gaps in his education accumulated in the area of direct contact with the building, and it cannot be done hastily, even for the short time devoted to this particular discipline in the course of studies.

Though guided, he will refer the need of direct experience with the building, of profound, analytic study of it to the need to restore it, the desire to “preserve” it. But he is unable to see how that experience is, indeed, an indispensable aspect of his training as an architect. And so he devotes himself to the analysis of materials, the study of processes of deterioration and damaging events, judging this passage an indispensable step to understanding what is simply the best therapy. In this way he confuses, or is led to confuse the fundamental disciplinary meaning of Restoration; he does not have the time to understand the project horizon and perceives it as a structure, perhaps even a well-organized one, of merely technical information. And he is unlikely to go beyond this point.

There is still a widespread conviction in the field that the questions posed by restoration are essentially technical in nature, and that one can therefore say, with a “clear conscience” that they are not “architectural problems”. Considering, at the same time that if, however, the restoration should be presented in the first place as a problem of architecture, “there is no doubt” that it would be one of “architectural design”.

We are unable, perhaps unwilling, to understand that the restoration of a building with the goal of preserving it is, however, a task that does not end with the identification of suitable materials and effective, compatible products with respect to the existing ones; with the identification of the actions necessary to halt the process of deterioration in progress; with the decision of the best ways to return the “structure” to functional conditions. Restoring a building in order to preserve it means preparing a detailed, complex project at the center of which are a thorough knowledge of its historical content and an interpretation of the architecture involved. The problem is to define the themes and references on which to base our interpretation as well as the content and method “of” the study and “for” the study of its history, that implies possession of an “ideal motive” and our awareness of it.

Interpretation and history are the goal of judgments that influence our choices and lead us to distinguish “what”, and explain “why” and define “how” to preserve, change and eliminate. They guide the architect in dealing with the basic contradictions with which restoration must come to terms: to ensure the permanence of changes stratified in time and at the same time maintain the expressive intentions left by the architects, from the first configuration to the later alterations.

All of this presumes familiarity with the act of construction, in view of the fact that the study of materials, deterioration and damage provide precious and indispensable information for the definition of the “cure”, but also respect for the quality of a building and its history, knowing that choosing the materials for a work is one of the most “exciting” activities of an architect, knowing that the processes of deterioration testify, among other things, to the attention devoted to the subject of conservation at the

time of designing and building the construction. The forms of deterioration are one of the expressions whereby the interaction between a building and its surrounding environment is revealed, and it is also true that damage can be the result of changes experienced in time by a building: at the time of a change of ownership, a change in its use and so on.

On the other hand, there is a need to consider the signs that reveal the processes of deterioration and damage, also from the figurative viewpoint, for the effect that they have on the image and historical value of a building. This means determining whether and when the signs of deterioration that we observe in the materials can be considered an integral and essential part of its “image”, elements of its stratification that, characterizing the form and significance, contribute to its identity and qualify its authenticity.

These signs reflect the ages in the life of a building: the fame it has enjoyed, the indifference in which it has been left. Both admiration and disinterest leave traces on architecture, permanent signs of care or neglect, paced throughout its history, reflecting the fortunes of its owners and their heirs. In this sense, they are important, perhaps even more than many essays rich in historic interpretations and appraisals of value.

With regard to history, also, the most delicate aspect with which restoration must concern itself, the first and most important observation to make is that the “history of architecture” is a subject that does not enter at all into the training program at any point. Architects are thus totally unprepared to deal with the study of the historical background of a building – which is, of course, a fundamental aspect for the preparation of a plan of restoration – not only because of their lack of familiarity with the study of architectural construction, but also because of their lack of preparation with regard to the method.

The historical tradition often valorizes only the aspects linked to figurative aspects or elements of composition, almost in spite of the profound changes that now characterize the horizon, where new views and perspectives force those who occupy themselves with architecture to return their attention to the technical “act of building”, not seen as an “intermediate stage” with respect to a “transcending aim”, but as the “profound dimension of man’s aperture to the world”.

There are very few, though excellent, studies that examine the relationship between “principles and construction”, as between “form and construction”.

Moreover, the widespread and recurring didactic materials normally used to teach history – photographs, drawings and descriptions – bear witness to “a” time in the life of the building, without allowing us to grasp their changes, to see them as they effectively are: palimpsests that do not testify to “a” time, but to time itself. To acquire this understanding, which is fundamental for restoration, it is necessary to reflect on another aspect of great importance and greater interest: the relationship between the architect and the work, the before and after of construction. Which means focusing on the attention to give to the subject of durability, to reflect on the effect that the project – as the expression of a creative tension, the revelation of a hope – and the finished building – with respect to the materials chosen and the construction techniques employed – will have on its ability/possibility to last through time, despite the aging of its meaning and the strength of its consistency.

In other words, defining the “measure” of aging and its relationship with stratification. In other words, verifying how the architectures of the past have managed to

resist so long just on the strength of those principles and those choices that inspired their design and construction.

Which also means questioning the value of time, of fate on the signs of history, reflecting on the parallelism that it is appropriate to establish between consistency and authenticity.

And also, to question the relationship between the designer and the finished building means asking ourselves also to what extent the building “belongs” to its architect, where “belonging” is viewed more with reference to the aspects relative to the “copyright”, than to the effective recognition of the architect in the construction that comes out of the worksite.

Thus it happens that when the student-architect, first, and the architect, later, find themselves before a building with the task of restoring it, they are disarmed. First of all they discover that the principles, the history, the techniques that they have learned so well, though indispensable in their way, are insufficient. Because they discover that the building in front of them is not only the work of the architect who built it long ago. Or of the architects who, during the course of its more or less long life, have altered it. They discover that the building has had a life, has lived in an epoch, has experienced a history of its own, independent of that of its architect. It has lived another history than that which, in the same period of time, the history of architecture has lived. They discover that the building consists of the stratification of signs of which they know nothing, or almost nothing. And they do not know how to read them, what to make of them. Above all they do not know where to focus their judgment or how to appraise them on the basis of the choices to be made in the project they are asked to design.

What happens then is that the student and the architect overcome the difficulties they have in reading and interpreting the architectures in front of them, in their effective consistency – which means in the multiform, intricate reality of elements that characterize them – by taking refuge in what they know best, what the school has insistently prepared them for. And so the first, often the only study they make is to identify in the buildings the signs that are the expression of the project that led to its construction, i.e. the work of the architect who designed it and possibly also of those architects who, at various times in its history, have altered it. They soon come up against the obstacles inherent to this method, however, for it is difficult, if not impossible, for a project to pass unchanged through the construction stage. There is not one measurement of a building that coincides in every point with the project drawn to build it.

Besides, that building, like any other, once built, has experienced a rich life full of events and meetings that have changed its configuration and consistency. A life, as we have said, during which natural phenomena, and the more or less voluntary actions of men, have produced additions, adjustments, removals that are added together in its material body, producing layer after layer that give the measure of its continuous evolution. These are necessary passages in its existence that testify to its nature as a living organism, in continuous change, like anything that belongs to this world.

Not to speak of the many “architectures without architects” that have acquired fame and importance for reasons having nothing to do with the world of Architecture.

The first spontaneous and natural discovery leads him to judge those signs that time has etched and that in time have become stratified in the architecture for which he has to prepare his restoration project, as entirely extraneous to the history he has

studied and that he thinks he knows. And indeed, those signs are not only extraneous to the “History of Architecture”, quite often they are actually distracting from the “best” perception of the traces of Architecture still recognizable and present in the building.

At times they can even be embarrassing because they reveal “possible” oversights, nothing less than errors by the architects who have put their hand to it since it was first built. Sometimes they reveal the fracture – due to the passage of time, changes of ownership or other reasons – that divides the project from its realization, producing very obvious changes.

The urge to correct them is strong. The desire to rebuild the building, that building, perhaps not within the rigid guidelines of a type but at least within the great groove of intelligent design, intelligent building, that was proper to its time, is very great. The desire to restore even that building to the perfection of its disciplinary principles, is irresistible.

The situation becomes even more complex when, in addition to the urge to respect the disciplinary principles, we encounter questions of a historic and critical order. When the signs conflict, in other words, with those drawn by the original author. Or when they are proper to an epoch, later than the period in which it was built and not (or not yet) fully appreciated by the critics, as we see above all in the case of epochs closer to our own.

The perceptive architect, studying a building, is able to observe how any historical evidence is always richer and subtler than what we make of it. That every history is made up of many histories. At the same time he must admit that often the signs from the past are very weak and the means at our disposal to recover their meaning are still extremely imperfect. And this causes a situation of danger for their survival. At times it is not enough to venture out of our own “field”, to call on others to help us read, decode, decide.

It is difficult for the architect to adjust his thinking to the fact that with respect to the traces of the past our task is not to discover the truth, because there is no single story, but images from the past that are offered to us from different viewpoints. The contribution that the architect can make, then, is to facilitate the discovery of the many “shapes of time”, to stimulate the awareness of a multitude of meanings in every work, to create a dialogue with the work that, without evading the task of making choices, aims to increase our understanding, to enable us to grasp what has been done and to carry it on. He can preserve the vitality that every building expresses, allowing it to change without losing what has been accumulated thus far, enriching the scenario and inviting everyone to take responsibility for “living in time”.

At the most, today and not unwaveringly, the student and the architect exhibit a certain tendency towards “cataloguing”, emphasizing typical features and all those references that might have been able to influence the choices of the original project architect, and then trusting them to indicate the choices for restoration. Once again, he focuses on project-centered architecture and tries to use it to resolve the complexity of the building.

On the other hand, the “History of Architecture” he studied at school is rich in biographies, attracting his attention to the subjects rather than to the objects. This leads him to see the latter in function of the former, the building as an expression of intentions expressed in the project, linking the value of the architectures to this relationship. Often it is the only value to which he can refer.

However, while it is certainly true that without architects “architecture” could hardly exist, it is equally true that constructions have a life of their own, during which they acquire an identity that may exceed, without denying it, that with which “its” architect endowed it.

It is only by coming into physical contact with construction that the student-architect can learn that a building is not what is built: a building becomes, in time, it acquires a character and that continuous change is the nature of its existence. To deny this would be a little like denying the very essence of their being in the world. It would be a little like denying their history and the very reasons that led to their construction.

It is only by frequent contact with architecture, by careful examination, that we can understand how the primary goal of restoration should be to preserve the vitality of every building, accepting the credits as much as the debits inherited. Otherwise, the lack of familiarity with construction will lead to strange forms of conservation and the paradox of a technical vacuum that estranges the building from the flow of time, impoverishing its past, penalizing its present, cutting off all hope of a future. It is the exercise of a form of “despotism of the present” that results in condemning the building to be only the expression of “a” time, imposing a sort of “eternal youth” on them. While the arduous duty of the architect towards the past consists of “controlling change”.

In place of the classical contrast between “truth/falsehood” we should, perhaps, use the dichotomy “inside/outside” with reference to time, to mean that we are an integral part of the history of our planet or we are outside it. It is only in this context that we are able to perceive the distinction between “conservation” and “restoration”: the former has the goal of preserving the largest possible number of signs and related meanings; the latter, the illusion of being able to re-establish a lost image by selecting signs and meanings.

Acknowledging the fact that architecture, in the form of buildings, which we encounter every day, whether monumental or of lesser importance, is not only the work of architects; it is fundamental for us to be able to understand the different scenarios - in terms of instruments and methods - with which the architect has to measure himself when facing the task of constructing a new building or restoring an existing one. But in this respect the school is deficient.

The special instruments of the architect’s profession, exhaustive for the construction of new buildings, become utterly indispensable when intervening on existing buildings: in restoration, and this merely confirms that restoration is an operating branch that, while entirely within the “realm” of architecture, does not end there.

The mastery of techniques, historical knowledge and critical awareness that traditionally combine to make up the architect’s background, guiding the procedural orientation of his structural commitment before the problems posed by restoration, confirm their importance but at the same time reveal their insufficiency. Additional knowledge is essential, and a different mastery of history starting from its methodological aspects, with the ability to navigate a broader, more open critical horizon, are necessary to plan a restoration.

Not another type of knowledge, different or independent from the traditional knowledge of the architect, but a wider range of knowledge, capable of communicating with it, without denying it, yet able to widen the frame to encompass a new equilibrium.

It is time for the schools to go beyond the architect/project bond and reflect on the bond of architect/architecture. And it is also time for the schools to pose the problem of “time” to their students, of “time as consumer of things”. Perhaps moving away from the problem of “durability”, in any case to arrive at the two basic questions: “time and the architect”, “time and architecture”, which means preparing to perceive the continuity and the fractures that exist between them and work to amplify, from the subjects to the objects, the horizon of teaching: in history, technology, project design. What this means, in the long run, is to ensure the centrality of both project and construction in the student-architect’s training program.

With respect to restoration, this means offering the students new instruments and greater awareness to enable them to find their way between the two “paths” that, in this sector, run through the history of architecture in the *modern era* with great emphasis. From Bramante and Raffaello, to Ruskin and Viollet-le-Duc, and up to the present time.

On the one hand we have those who consider the “project” the expression of the identity of a building – that means placing the architect at the center, with his mode of interpreting and bringing to life, every time, in every work, the principles of architecture – and, on the other, there are those who insist on the *hic et nunc*, concentrating their attention on the “building” – that means recognizing the independence of the real structure from its designer, based on the value that the signs of time can give it.

We think it is important to prompt a reflection on the themes that characterize the specific sector of restoration, on the background it demands, on its relationships with the other disciplines, on the sense and measure of its relative independence, on the ways with which it not only belongs to but even characterizes the field of Architecture and the architect’s profession. It is the central and qualifying sphere that identifies the peculiarity of the preparation and exercise of the architect’s profession since the foundation of the Architecture Faculty, and it does so today even more clearly and forcefully.

It is important to do this in order to offer the students the opportunity to develop their own point of view on matters that concern architectural restoration.

It is essential to invite them to measure these themes in the field, to see how they stand up by entering into the contradictions of the work, from the project to the construction, to have the opportunity to examine the process that links them. Through this, they can undertake a reflection on the “reasons of time” in which care, interpretation, use of technique, history and memory are the key words.

At this point, they will be able to reflect on the meaning to give to restoration today, particularly architectural restoration, with the awareness that meanings change and that it is necessary to reflect on those changes, knowing that the question “what is restoration?” is and always will be one for which a final answer is impossible.

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**Les Savoirs de la Sauvegarde**

Le mot "restauration" est à mon avis assez mal adapté pour définir ce que j'enseigne dans une Faculté d'Architecture. J'aime parler plutôt de sauvegarde: elle se réalise aussi, là où il le faut, et quand il le faut, par des solutions constructives cohérentes.

Leur qualité dépend soit d'une richesse de références culturelles et de motivations sociales qui s'enracinent la plupart hors du domaine de l'architecture, soit d'un horizon de compétences très élargi, qui portent bien au-delà du projet d'architecture, projet qui est pourtant nécessaire.

Projeter dans l'existant, ce n'est pas adapter un bâtiment à des fonctions ou à des normes nouvelles: il s'agit plutôt d'envisager une synthèse difficile parmi d'exigences même antithétiques. Lorsque les problèmes sont simples, il suffit d'ajouter ce qui manque, à une échelle plus mince, plus rapprochée, subordonnée à l'existant, on retombe dans la pratique - légitimée par les siècles - de superposer une nouvelle couche.

La forme et la consistance de cet incontournable nouveau ont toujours suscité un débat très animé. L'échelle du détail laisse d'amples marges d'autonomie, sans ni épater ni choquer. Distinguer les rajouts ne comporte donc pas nécessairement les accentuer jusqu'au contraste.. Celui-ci devrait se produire entre la matière contemporaine, intacte et polie, et celle du passé signée plus ou moins profondément par le temps. Ainsi l'avait envisagé Alois Riegl. A rebours, la version courante du contraste oppose d'un côté la forme ancienne exaspérée par les marques de l'abandon, ou au choix par le neuf étincelant des reconstructions à l'identique, et de l'autre côté des éléments nouveaux débordants et grossiers, gadgets technologiques ou répertoires désabusés d'une modernité vieillie de l'autre...

Même Carlo Scarpa a très rarement touché à un véritable bâtiment ancien: Castelvecchio et Palazzo Abbatellis sortaient d'affreuses (et récentes) restaurations. Il était censé enrichir ce qui venait d'être épouvantablement appauvri, remplacer l'histoire qui venait d'être effacé par une autre histoire ...

Contre ces idées reçues Bruno Reichlin a postulé la «renonce», la «Entsagung» du vieux Goethe<sup>1</sup>. *«A tous ceux qui voient dans la sauvegarde une somme de devoirs, d'entraves et de limitations, j'ai envie de dire qu'ils ne sont pas contemporains parce qu'ils n'ont pas compris combien d'imagination il faut déployer et quel plaisir procure la Entsagung, qui est le propre de la conservation et de la sauvegarde».*

Les adjonctions signent les limites du domaine: elles rentrent dans un projet de restauration, mais l'enseignement s'arrête avant, à la compatibilité.

On peut, bien sûr, juger si la solution du cas concret réussit à garder suffisamment de traces matérielles, si elle est respectueuse du rôle de source et de ressource d'un bâtiment, on arrive même suggérer des ruses, ou souligner les fautes technologiques, les choix grossiers qui accablent même des chantiers célèbres. Des bons détails jouissent toujours de l'approbation du public, favorisent son adhésion aux stratégies de la sauvegarde.

Néanmoins, on n'est pas dans l'atelier du maître qui propose ses démarches et son langage. On n'enseigne pas tout ce qu'on fait, même s'il est arrivé - quelquefois, et par hasard peut être, - qu'il était bien. Pour enseigner, il faut un surplus de réflexion et le projet d'architecture a son autonomie et ses itinéraires culturels.

De plus, si on réduit le projet de sauvegarde à sa pure dimension architecturale, on risque d'en oublier l'essentiel. La sauvegarde a une dimension régionale et urbaine. Au niveau des bâtiments, le projet se dégage de la complexité des stratégies préalables de connaissance, de la compréhension des échelles concernées. Il se concrétise dans



la mise en évidence des nœuds techniques et des problèmes d'usage, et dans la définition des critères pour les résoudre, il évalue et souvent cherche à amoindrir l'empiètement sur l'existant, pour ainsi dire, des adjonctions, des endroits où les réaliser.

Le projet de sauvegarde est plus proche de ces démarches que, dans la gestion de la ville, on appelle «politiques»; d'autant plus que la sauvegarde s'exerce aussi, et devrait de plus en plus s'exercer, par l'entretien et la maintenance, même si ces deux pratiques elles aussi ne remplissent qu'une partie limitée de tâches de la sauvegarde et finissent là où tout élément nouveau est ajouté.

Sauvegarde est donc d'abord reconnaissance, et après gestion futée mais prudente d'un patrimoine bâti qu'on ne peut pas remplacer dans sa totalité à chaque génération.

## Sauvegarde et environnement

Sauvegarde signifie aussi, dans la société postindustrielle, économie des ressources énergétiques et respect de l'environnement. Il ne s'agit point d'un hommage à une vogue récente: dans la culture anglophone ou germanophone cette tendance est déjà mûre à la fin du XIX<sup>ème</sup> siècle. La dégradation du paysage, en Allemagne, n'est pas seulement la dégradation du cadre visuel mais aussi de l'existence et de la santé, même si cette sensibilité finira par se replier sur le compromis, empiéter sur le terrain ambigu de l'*Heimatschutz*.

Lorsqu'on retrouve ces thèmes teintés de vert, présentés comme s'ils étaient tout neufs, on a de la peine à cacher un sourire: c'est de la marchandise fin de siècle qu'on débite. Surtout lorsque les repêchages sont naïfs, on entend retentir des accents Belle Epoque.

On se fâche même un peu lorsqu'une technique, ou une exigence spécifique, ou encore une certaine façon d'épargner l'énergie devient le seul critère selon lequel on juge le monde entier, selon les bonnes règles d'un réductionnisme digne du XIX<sup>ème</sup> siècle positiviste.

## L'extension du concept de patrimoine

L'idée de ressource, liée à la matérialité concrète du bâti existant, engendre aussi une étendue du patrimoine à sauvegarder qui dépasse les seuils temporels et les contraintes typologiques, et comprend théoriquement les quartiers des Trente glorieuses et les friches industrielles, l'architecture rurale et les réseaux urbains.

Cette extension du concept avait été proposée par Aloïs Riegl au début du XX<sup>ème</sup> siècle. Le *Kunstwollen* qu'on peut saisir dans les objets les plus modestes, n'est pas un principe de sélection, la dimension artistique ne sert point au tri.

Les conséquences dépassaient l'enclos de l'histoire de l'art, même si l'art paléochrétien et le baroque sortaient de la disgrâce. La redécouverte du dix-septième et du dix-huitième siècle entamée depuis 1880 dans l'aire germanophone s'accomplit dans l'Empire des Habsbourgs: Riegl et ses successeurs réussirent les premiers à imposer la conservation du décor baroque même là où il se superposait au Moyen Age.

La vision de Riegl empiétait sur un environnement quotidien beaucoup plus élargi: Georg Vasold l'a souligné à juste titre<sup>2</sup>, on risquait de ne rien comprendre, oubliant le pamphlet *Volkskunst, Hausfleiß und Hausindustrie*<sup>3</sup>, et l'intérêt du premier Generalkon-

servator pour les thèmes de l'ethnographie, très actuels à son âge, dans son contexte, l'Empire habsbourgeois, délicats, dont les objets d'étude à l'époque formaient ce qu'on appellerait aujourd'hui le domaine patrimonial élargi.

Le patrimoine ethnographique ne représentait pour Riegl ni une fontaine de jouvence pour les arts appliqués, ni non plus un gage de fidélité à la tradition, Il ne partageait pas ces opinion conservatrices, il y voyait un espace d'expression extraordinaire, pas nécessairement spontanée, souvent, à rebours, une imitation plus ou moins consciente des modèles cultivés, où la dimension locale et l'essor universel s'entrelaçaient.

Pour mieux s'expliquer, sans vouloir établir des parallèles hasardeux, de nos jours Carlo Ginzburg a peint lui aussi un monde paysan du XVIème siècle avec sa religion où se superposent croyances ancestrales, thèmes de la propagande protestante, visions élitaires issues des milieux intellectuels<sup>4</sup>. Riegl – et les intellectuels de *Kakanien* – arrivaient à saisir ces richesses seulement d'un regard au même temps désenchanté, curieux et tolérant, respectueux des diversités. Le fidèle fonctionnaire d'un empire multiethnique venait ainsi de couper la dangereuse progression culture populaire – nation –état, détruisait tout enracinement dans le passé de l'identité nationale, la repoussant dans son présent bourgeois.

Dans le domaine des arts et des techniques, Riegl ne reconnaissait aux répertoires régionaux aucun rôle de source où puiser des modèles, par lesquels Académie et arts appliqués auraient dépassé les détours et les excès de l'éclectisme et de la reproduction mécanique des décors du passé. Il n'octroyait non plus aucun ouverture de crédit à cette idée de continuité entre passé et présent, entre terroir et modernité, à cette rationalité déshabillée de l'architecture et des intérieurs ruraux ou bourgeois avant la révolution industrielle, une aspiration partagée de la France régionaliste<sup>5</sup> à Hans Poelzig<sup>6</sup> jusqu'au Taut de la maison du Cottbusserdamm, pour se borner à quelques exemples bien connus. A rebours, ce patrimoine local n'était plus reproductible: les conditions sociales et la structure productive dans lesquelles il était fabriqué et exploité étaient à jamais révolues, il appartenait désormais au domaine de la sauvegarde. Le nouveau devait instaurer avec le passé un rapport complexe et changeable selon les circonstances. Miroir de son temps, ce rapport réfléchissait aussi la façon d'une époque et d'une société de regarder son propre passé, et à leur tour les intérêts pour une période ou l'autre de l'histoire définissaient la culture d'une époque.

Les images des Mittheilungen étoffent l'idée d'un patrimoine qui s'étend à l'ensemble du bâti: villes et villages, fermes, hameaux et constructions rurales, églises en bois et maison de rapport Biedermaier. Cette dernière période était réhabilitée et considéré digne de protection légale même si elle n'était à l'époque plus révolue que ne le sont aujourd'hui les Années Cinquante.

Ce patrimoine figure dans les superbes photos réutilisées astucieusement par Dvorak dans le *Kathechismus der Denkmalpflege* pour monter sa série des *Beispiele und Gegenbeispiele*, la réponse, le contrecœur habsbourgeois des *Kulturarbeiten* de Paul Schultze Naumburg<sup>7</sup>.

Il semblait déjà à l'époque sans aucune signification de chercher un fondement scientifique pour délimiter le domaine de la sauvegarde, établir une hiérarchie de valeurs fondée sur une *Kunstwissenschaft*, que Riegl, qui en est pourtant considéré un représentant majeur, jugeait impuissante juste à son apogée. Les ressources limitées, la rareté de tel ou tel témoignage, les coûts remarquables de reproduction d'un objet

ou d'un bâtiment, son attitude à l'usage, sa durée potentielle, les événements historiques auxquels il est lié, étoffent le choix de conserver, mais ne servent pas à exclure du bénéfice de la survivance aucun objet tout humble qu'il soit. Sans doute, ces arguments peuvent être raisonnables, mais ils sont consciemment relatifs, étalent ou cachent une vision de la société, sans aucune hypothèque pour le lendemain.

Si la pénurie des Années Vingt réduisait dramatiquement les ressources qu'on pouvait destiner aux «monuments» la proposition de Hans Tietze<sup>8</sup> d'investir seulement sur les objets qu'on sentait proches de la vision contemporaine de l'art, montrait comment la *Kunstwissenschaft* – la science et non de l'histoire de l'art – les dérives néoidealistes, peuvent empiéter sur l'arbitraire le plus total, sur la subjectivité la plus désenchaînée.

## Les «sciences auxiliaires» de la sauvegarde

Riegl définissait ainsi un patrimoine à multiples facettes, nuances, durées, qu'on peut reconnaître seulement par l'ensemble des savoirs historiques, ou, encore mieux, des sciences humaines, par une optique transdisciplinaire.

La sauvegarde s'offre ainsi dans l'ensemble des enseignements de l'architecture comme l'une des issues pour sortir d'un univers autoréférentiel.

Il ne sert donc à rien apprendre à exclure, il faut plutôt enseigner à reconnaître. Les sciences auxiliaires de l'histoire, essentielles pour l'archéologie ou la connaissance des arts appliqués ne sont pas moins précieuses pour les bâtiments. Toute sélection rigide et préalable s'avère problématique, parce qu'on ne peut pas deviner d'avance toutes les situations, où certains instruments montrent une utilité inattendue *a priori*.

Il m'est arrivé, il y a quelque mois, non loin de Gênes, dans ces tristes circonstances où on est témoin forcé et involontairement impuissant, de me retrouver dans les mains, à cause de l'habitude d'observer tout ce que d'autres mettent de côté ou jetteraient, deux gros couverts à servir, noirs et poussiéreux. On cernait à peine l'ombre des poinçon, qui se dévoilèrent sur la cuillère comme un le «Coq» en usage depuis 1809 dans l'Empire Français, et sur l'autre comme la Croix mauritienne, introduite dans le Royaume de Sardaigne depuis 1825<sup>9</sup>. Les deux poignées, en apparence semblables, étaient différentes. L'un des couvert avait voulu imiter l'autre, et les deux représentaient l'histoire d'une existence et d'un lieu. Avec la chute du gouvernement patricien, après la parenthèse incertaine de la République de Ligurie, celui qui autrefois était un Etat s'était réduit à deux Départements aux marges d'un Empire. Les objets de la vie quotidienne, où un poinçon identifiait un pays, avaient été jetés, avec ceux qui les employaient, dans un espace immense, où ils paraissaient perdre de poids et d'identité, et – on le lisait dans le symbole savoyard – ne les auraient jamais regagnés. Au même temps, celui qui aujourd'hui est un métal presque précieux, un arcaïsme qui marque par son inactualité un statut social ou une occasion de fête, était, avec un minimum de moyens, la solution quotidienne pour se passer des oxydes nuisibles. Garder un couvert à côté de l'autre – conserver autant que possible objets et contexte – signifie sauvegarder la mémoire historique dans sa complexité, telle qu'on peut la lire dans des objets les plus humbles.

L'archéologie – c'est-à-dire l'ensemble toujours croissant des pratiques qui apprennent à lire les traces matérielles comme documents de l'histoire du quotidien, du travail, du chantier- enfin pour mieux dire, l'archéologie stratigraphique dans toutes ses

implications, est devenue un repère essentiel pour la sauvegarde, l'expertise préalable à tout projet sur le bâti existant.

Cette synergie entre sauvegarde et archéologies postclassiques est un des acquis les plus originaux et les plus féconds que la culture italienne ait su élaborer dans les derniers vingt ans. On se doit de le rappeler à Gênes, où l'archéologie est devenue d'une façon si efficace et profonde archéologie du bâti en achevant le renouveau substantiel des ses méthodes de travail et de ses perspectives entamé dans les années cinquante. Les milieux les plus avancés arrivent à remettre en cause les principes destructifs de la fouille, à en redessiner l'application. Ils recentrent plutôt le travail de l'archéologue sur la connaissance par les données matérielles, et le degré de détail, de profondeur, d'étendue qu'elle assure. Cette réflexion a porté à rediscuter radicalement le recours à la dépose, devenue procédure extrême. Garder la stratification permet de revenir sur son interprétation au moment où, par exemple, d'autres connaissances seront acquises: la dépose tarit à jamais la source.

Dans une autre perspective, de moins longue haleine, l'intérêt répandu pour les méthodes archéolo-

giques, et notamment pour la stratigraphie en élévation est la dernière tentative d'une approche objective, scientifique à l'existant: on revendique d'instruments spécifiques, spécialisées, qui légitimeraient une sorte de préséance à l'intervention sur le bâti ancien. L'effort de fonder les décisions sur des bases objectives, est la réaction aussi à une saison de la restauration, celle du néo-idéalisme, de la réintégration de l'image d'art et de son opiniâtre. Devant l'engouement un peu fantasque du néogothique qui l'avait précédé, le positivisme tardif avait réagi de la même façon: son érudition était avant tout une revendication de scientificité.

### **A la recherche d'une autonomie disciplinaire inatteignable: le débat allemand**

A une autre époque et dans d'autres manières, dans la culture germanophone, ce retour à la rigueur, dont les méthodes archéologiques sont un garantie facilement reconnaissable, se prêtait bien à fixer de bornes aux pratiques très «créatives»de la reconstruction après 1945.

Ce qu'on reprochait dans les années Quatre Vingt à cette Denkmalpflege c'était de s'être enfermée dans ses techniques, dans ses catégories, dans ses pratiques rigoureuses, dans sa philologie. Elle n'aurait pas su rendre populaires et partagés ses arguments; elle avait renoncé à soutenir une bataille pour la sauvegarde qui était aussi politique, qui visait à la société de la consommation et à ses idoles, et quand la crise du mouvement moderne et les penchant postmodernes qui en étaient conséquence auraient offert l'occasion de se rapprocher de l'actualité architecturale, elle s'était refusée (méritoirement, on dirait) d'exploiter une renaissance ambiguë des tendances identitaires qui rappelaient en cause les formes du passé ...

Il est ici hors de lieu de discuter le bien fondé de ces polémiques opposées l'une à l'autre, il faut plutôt remarquer le retour à une sensibilité au patrimoine élargi et aux aspects matériels qui s'était perdue depuis le début du siècle, devant la crise économique de l'entre deux guerres et les effets des bombardements, qui avaient éveillé d'autres attentions.

En 1988, sous le titre *Conserver, ne pas restaurer*<sup>10</sup> Dehio et Riegl ont été heureusement couplés même si le grand viennois se dut de souligner avec acharnement<sup>11</sup>, dans les derniers mois de sa vie, que ses idées n'avaient rien à partager avec le nationalisme de son collègue strasbourgeois<sup>12</sup>. Dehio s'était battu contre la reconstruction de l'Ottoheinrichbau du Château de Heidelberg – dans une querelle parmi les plus célèbres de l'histoire de la restauration – essentiellement puisque les traces matérielles survécues étaient trop minces et les sources documentaires trop réticentes. Les décisions sur le sort du bâti ancien devaient être strictement techniques, étaient du ressort des spécialistes du passé, des *Gelehrten*, les érudits et les historiens de l'art. Lorsque leurs instruments ne suffisaient plus, on ne pouvait pas les remplacer par le projet architectural, avec sa vision subjective, son optique contemporaine. Une autre histoire, le mythe de la Nation, à Heidelberg, reprenait ses droits: toute architecture aurait été hors lieu devant la grande tragédie nationale que témoignait la ruine. Si jamais, on pouvait livrer aux architectes des restes moins illustres, d'un passé plus caché dans l'ombre, comme ce château de Hohkönigsburg en Alsace, un Moyen Age confortable où Guillaume II montait dans sa voiture «automobile» comme on disait à l'époque. La grotesque vanité d'Albert Naef en a laissé un récit d'un comique aussi involontaire que puissant<sup>13</sup>.

Le passé – la continuité de la nation – restait pour Dehio le modèle et la mesure du présent: il faisait semblant de ne pas voir – au contraire de Riegl – que les transformations sociales avaient rendu certains objets à jamais révolus, et partant les avaient livrés, pour ainsi dire, à la sauvegarde, l'unique forme désormais possible d'attention de la société et des ses multiples instances.

Les arguments qu'on a ici évoqué ont été soulevés – bien sûr – depuis longtemps dans la culture allemande. Ce rapprochement un peu risqué entre Riegl et Dehio essayait, encore une fois, de revendiquer l'autonomie de la sauvegarde et de ses buts, et surtout du domaine monumental et de ses pratiques contre toute demande plus ou moins légitime, d'ouverture à des thèmes de frontière (le débat architectural, les enjeux de l'urbanisme...), autour d'un noyau irréductible, la conservation – un mot tout à gloser – de la *Denkmalsubstanz*. Au delà de leurs approches différentes, de la *praktische Flexibilität* de Dehio, on essayait d'y situer l'héritage commun des deux savants germanophones. Mais Riegl, ayant bien compris les enjeux sociaux de la sauvegarde, n'a voulu – par l'idée de *Alterswert* – qu'esquisser une démarche raisonnable parmi les différentes instances de la société, et c'est bien la conscience de cette complexité qui fonde – au-delà des crédo personnels – l'actualité de la pensée du *Generalkonservator* de François Joseph.

## **A la recherche d'une autonomie disciplinaire inatteignable: une perspective italienne**

Dans l'Italie des Années Soixante et Soixante-dix la sauvegarde, à l'échelle urbaine, avait été de plus en plus ressentie comme instrument pour contrecarrer un modèle de développement urbain, l'abandon de la ville ancienne et la construction des banlieues, le gaspillages du territoire, l'expulsion des catégories sociales les plus faibles des quartiers centraux. L'extension du concept de monument, la notion de «centre historique» comportait la redécouverte – pas toujours déclarée et souvent hors contexte – du débat viennois du début du XXème siècle. Des propositions courageuses au point de vue de l'urbanisme, donnaient lieu à des normes et à des choix opérationnels ar-

riérés et sommaires, souvent antithétiques face aux objectifs déclarés. Bien sûr, l'échec de ces politiques ne s'explique pas par les carences techniques. Néanmoins, la persistance depuis trente ans de pratiques et de choix arriérés déjà à l'époque, devrait pousser à la recherche patiente et sereine de ce qu'on pourrait faire, dans l'enseignement, pour contribuer à leur abandon définitif.

La pratique institutionnelle, le savoir codifié de la restauration paraissaient, il y a trente ans, et quelquefois non sans raison, offrir de faibles appuis: beaucoup d'argent était encore jeté pour effacer le XVII<sup>ème</sup> et le XVIII<sup>ème</sup> siècle et revenir à un Moyen Age inexistant. Le cœur du projet de restauration était situé dans la reconnaissance des valeurs architecturales d'un projet d'origine, d'une relation de volumes et d'espaces qui formeraient les traits essentiels de l'image d'art d'un bâtiment: on devait exalter tout ce qui contribuait à les mettre en exergue, et enlever tout élément qui pouvait engendrer des contradictions. La «lecture», l'approche correcte du public au monument serait ramenée à son essence, on empêcherait de coupables détours. Les haillons du néohegelisme déguisaient encore une fois une *administration de l'histoire* surannée. Proust avait sévi depuis longtemps sur les prétentions de Viollet-le-Duc de présenter des monuments exemplaires, des histoires simplifiées qui saisissaient le grand public: si Odette de Crécy faillit perdre à jamais Swann, ce n'est pas parce qu'elle est allée avec Forcheville pour le jalouser,, mais parce qu'elle est allée à Pierrefonds...

Le fréquent rappel aux élaborations de Cesare Brandi montre qu'on a de la peine à renoncer à ces illusions. Sa «Theorie de la restauration»<sup>14</sup> peut satisfaire le besoin d'une règle de comportement spécifique du domaine de la sauvegarde, la demande de critères de sélection «neutres» suffisamment souples pour voiler les compromis des institutions nationales ou internationales, pousse à chercher un soutien dans la pensée d'un homme du métier, d'un fonctionnaire très doué. Riegl lui-même l'était, mais les compromis qu'on lui demandait étaient de tout autre envergure, se fondaient sur toute autre idée d'Etat, le contexte dont il pouvait jouir était beaucoup plus riche et périlleux. Il serait risqué même d'en rapprocher les noms si ce n'est que pour délimiter une époque<sup>15</sup>: *ne sutor...*

Riegl n'a pas élaboré une théorie «interne» à la sauvegarde, il a juste démontré que ses raisons se situent ailleurs, qu'il ne faut pas couvrir les manques et les fautes d'une société, mais au contraire puiser le plus largement possible de la culture contemporaine dans tous ses aspects. La sauvegarde se mesure elle aussi sur l'ampleur de cette ouverture. Il s'agit d'un itinéraire trop complexe, trop varié, même trop personnel: le *Moderne Denkmalkultus* ne donne que des instructions élémentaires. On ne cache pas les médiations avec la société, on s'ancre à des évidences minimales, forcément partagées, et à l'unicité de la *Denkmalsubstanz*.

## Sauvegarde et sciences appliquées

Le rappel à la dimension matérielle des bâtiments, à la conservation de leur consistance physique a ramené au centre de l'enseignement les nœuds techniques décisifs, la consolidation, la conservation des matériaux et la réparation des éléments constructifs.

Plus récemment, il a été question enfin du microclimat des bâtiments et leur équilibre hydrique et thermique, dans l'effort d'effacer une manque de la culture italienne, où le projet des installations est chassée gardée de l'ingénieur mécanique, qui

se concentre naturellement plus sur ses machines que sur les ressources qu'offre le bâtiment.

Autrement dit, on a cherché de rendre à l'architecte l'organisation et le contrôle du projet sur le bâti existant: c'est à lui qui appartient de gouverner l'instruction. Il ne doit pas seulement déléguer aux différentes compétences spécifiques, il doit aussi formuler avec les spécialistes les questions, et évaluer avec eux les résultats, vérifiant leur validité dans le cadre général, à l'échelle dont il a seul la compétence. Le rapport avec les sciences appliquées est tout à réinventer: il faut construire de nouvelles figures, avec des connaissances transversales.

Sur le chantier, les prémisses ne sont pas flatteuses. On entame désormais courageusement une restauration des surfaces par l'enlèvement des traitements effectués il y a vingt ou trente ans, si les produits, après avoir été payés, n'ont pas eu l'obligance de disparaître par eux-mêmes. On ne parle pas non plus de dispositifs contre les séismes dont les conséquences se sont quelquefois avérées tragiques.

La *gaie* «science de la conservation» s'est éclipsée elle aussi: pendant plus que cent cinquante ans on a étalé en son nom sur les pierres et sur les enduits pratiquement tout, des purges aux fards<sup>16</sup>. Les architectes lui confiaient la tâche d'appliquer aux monuments les trucs les plus récents et les plus minables issus de n'importe quel domaine technique, dans l'espoir d'éviter, plus que les remplacements, les polémiques.

Les restaurateurs se sentaient rassurés par le halo de certitudes et de progrès qu'un positivisme immortel dessine autour du mot «science»: il suffisait pour eux d'indiquer des buts à atteindre, des critères à respecter, énoncer une «théorie», au fond, de décider ce qu'il fallait garder à tout prix, et ce dont on pouvait se passer. Si on se tenait à la conservation, au visage digne vieilli par l'histoire, les savants avec leurs laboratoires et leurs analyses étaient aussi un superbe écusson soit pour se parer des attaques d'un monde bariolé qui est encore prisonnier – en entier ou en partie - du mythe de l'état d'origine, de la *valeur artistique* telle que la dépeint le *Denkmalkultus*, soit pour se soustraire au terrain du projet architectural, quand on n'y possède que de faibles talents. Les sciences ne seraient pas figuratives; de plus, au nom de l'autonomie des savoirs, on n'a ni le devoir, ni le droit de trop connaître du métier de l'autre. Maintenant, dans un tourbillon d'échecs, face à des pétrographes ou des chimistes qui, vus de l'extérieur, lorsqu'ils ne sont pas dangereux dans leurs entêtements, ont changé d'avis et de produit avec une vitesse digne d'un médecin qui tranche sur les régimes, quelqu'un se souvient assez tardivement de Karl Popper: n'assurerait-il pas l'absolution pour avoir cru à des propositions qui ont été ensuite démontrées fausses?

Les analyses chimico-physiques servent donc beaucoup plus à comprendre les objets et à essayer de découvrir les causes des dégâts et des altérations, enfin, si jamais, à proposer des remèdes: la contribution des sciences de la nature à la connaissance du chantier historique commence à donner des résultats, mais il reste énormément de terrain à défricher.

Les «restaurateurs» peuvent contribuer: d'abord, ils doivent délaisser entièrement tout relevé de la dégradation séparé du relevé des traces historiques: bien sûr, il ne s'agit pas d'unifier des dessins, mais d'enregistrer les durées et l'évolution des phénomènes. La représentation des fissures et des lézardes, par exemple, pourrait suggérer des interprétations mécaniques, mais seulement si on connaît le contexte temporel et d'usage où les fissures se sont formées, et, autant que possible, quand le mouvement



s'était produit et s'est arrêté, ou s'il est encore actif, on peut choisir parmi les différentes interprétations.

Il est légitime de se questionner sur ce colloque parmi des savoirs différents: il ne s'agit pas seulement de buts (la «théorie») mais aussi de connaissances partagées. Dans la formation des architectes les notions de base de chimie et physique se sont assez amoindries. Il serait raisonnable qu'on s'approche au domaine par le biais «archéologique», la connaissance des matériaux et des procédés du chantier historique vus par les lunettes des sciences. Il est plus difficile d'introduire aux mécanismes d'altération, et leur déclinaison dans les cas concrets, sans risquer une reconnaissance très superficielle des dégâts, isolée d'une vision globale de l'histoire matérielle du bâtiment.

Au niveau le plus élevé de la formation, le futur de la sauvegarde ne peut qu'envisager aussi des profils assez différenciés, caractérisés par la prévalence des notions d'histoire de la construction et des sciences, selon des itinéraires de recherche nécessairement personnels. On peut se poser la question si ces profils ne puissent pas être déjà ébauchés au niveau du diplôme.

Ces connaissances sont beaucoup plus opérationnelles qu'on ne le soupçonne. On a souvent des doutes sur la réalisation des finitions anciennes: les analyses n'arrivent même pas toujours, surtout pour les produits organiques, à détecter les composants d'origine. Traités et documents, qui laissaient sous-entendus, liées à l'habitude, toute une série d'indications, ne sont qu'un canevas. Néanmoins, certains procédés qu'on peut déduire des textes ou reconstruire par les analyses, paraissent encore des solutions simples et efficaces même face au niveau contemporain des connaissances. L'architecte doit acquérir ces notions et les apprendre à son tour aux exécuteurs. Aujourd'hui l'expérience et le chantier n'accroissent plus un savoir empirique, et beaucoup de pratiques se perdraient sans cet enseignement de deuxième instance, sans cette médiation cultivée.

Personne ne s'illusionne plus que la science puisse fixer pour toujours la matière dans son état actuel: même un nettoyage peut modifier radicalement l'apparence d'un bâtiment, mais surtout sa dimension de source, effaçant les traces de ses états successifs et de toute une culture matérielle, si on ne reconnaît pas ni les traitements anciens pour protéger et colorier la pierre, ni non plus les restes de l'usage.

L'effort de conserver au possible cette succession de couches comporte un projet: ses instruments autres que ceux du projet d'architecture et son échelle rapprochée en forment la spécificité.

## **Histoire et sauvegarde**

Parmi les instruments de ce projet, l'histoire a paru inutile pendant que la conservation effective, totale, paraissait atteignable, au fur et à mesure où l'on s'illusionnait que le «récit du temps passé» demeurerait inaltérable dans la matière intouchée. Il s'agissait, bien sûr, d'une vision cavalière, simpliste. On feignait une histoire bornée à la tâche de garder le souvenir de ce qui allait disparaître, de remplacer le bâti par les mots, et au même temps et au contraire, de puiser aux sources, à l'origine au à l'apogée du bâtiment, les lignes d'un projet architectural.

L'ambition asynthotique à ne rien disperser de l'héritage du passé postule à rebours pour l'histoire un rôle essentiel. D'abord, les vicissitudes de l'usage et les temps



de la dégradation font partie de l'anamnèse préalable à toute tentative de «conservation», essaient de reconstruire – on l'a vu - les causes des altérations. Faute de ce diagnostic, il est problématique de les maîtriser, de les ralentir, voire de le bloquer. Et plus encore, l'histoire est le moment essentiel de la sauvegarde, c'est-à-dire la reconnaissance: si on ne sait pas voir les traces souvent minces du passé, on risque de les détruire même sans s'en apercevoir: *«on ne perd même pas ce qu'on ne sait, ou qu'on ne veut pas posséder.»*<sup>17</sup>

L'histoire de l'architecture au sens habituel du mot n'est plus en cause. En tant que critique opératoire elle racontait un passé largement imaginaire pour exposer son idée du présent, et ses excès, peut être, en ont détruit l'agrément même en tant que genre littéraire: Biagio Rossetti n'était point un professionnel d'avant-garde<sup>18</sup>, mais un entrepreneur rusé, enraciné dans son temps dans et ses affaires. La nouvelle Ferrare d'Ercole I est issue de la tête du duc et des compromis avec les tracés ruraux. Loin de préconiser une ville nouvelle, l'Addition ne dessinait aucune perspective pour la société de son époque et s'avéra une catastrophe politique<sup>19</sup>.

L'art de bâtir a ses procédés et ses durées, la notion d'«auteur» et son rôle excluent tout parallèle avec les arts figuratifs: l'architecte n'est pas nécessairement l'auteur des dessins, et encore moins l'exécuteur des travaux.

On peut emprunter de l'histoire de l'art l'observation minutieuse de l'ensemble au détail le plus mince, même figuratif, résultat d'une répétition rapide, presque automatique, mais on n'est point légitimé à en emprunter les mêmes paradigmes déductifs: ces courts circuits on les reprochait déjà à bon droit aux historiens de l'art des Années Trente lorsqu'ils empiétaient sur l'architecture. Les recueils, le répertoire de détails, de chiffres stylistiques, que produisent de ces observations peuvent néanmoins se traduire en aide précieux à la cronotypologie.

D'un autre angle visuel, l'histoire matérielle du bâti regarde les édifices comme résultat des pratiques du chantier et de leur évolution, les dénombre en éléments constructifs, exploite les connaissances opérationnelles, le métier de l'architecte.

Le cœur de la question a été abordé depuis des décennies par Carlo Ginzburg à l'égard de l'histoire de l'art<sup>20</sup>, et ses réflexions sont valables aussi pour l'architecture: on ne peut pas se passer de l'histoire des institutions, de la société qui a élevé et habité les bâtiments et les villes, de ses documents et de ses méthodes de lecture. À côté des outils de l'archéologie, elles peuvent déceler la logique des superpositions qui forment la consistance actuelle d'un bâtiment ou d'un quartier.

Il ne se donne pas par contre, et on ne doit non plus enseigner une histoire de la sauvegarde et de la restauration comme histoire d'une discipline autonome qui se raffermirait, qui progresse et précise ses instruments. Ce fil rouge n'existe pas, il existe à rebours soit le rapport toujours problématique d'une société avec la présence physique de son propre passé, soit le poids qu'on doit reconnaître à l'administration de l'histoire, et à ceux qui la revendiquent ou en sont chargés. Les livres les plus intéressants des dernières décennies dans le domaine – je pense aux écrits de Jean Michel Leniaud et de Winfried Speitkamp – ont été écrits par des historiens des institutions, ne sont pas l'œuvre de professionnels de la restauration. La reconstruction de ces vicissitudes n'indique pas des démarches, des codes de comportement, mais fait réfléchir, forme une conscience.

Ce n'est pas donc au hasard qu'en France on retrouve les jeunes chartistes parmi les contestateurs les plus acharnés des vieux architectes en chef de monuments historiques et de leurs grotesques reconstructions.

## Un petit mot de congé

On ne doit pas s'émerveiller de ces dettes vers le monde d'Aloïs Riegl, bien qu'elles ne soient pas les seules. Elles sont peut être incontournables, lorsqu'on donne ses cours dans une salle à cinq cent mètres du palais qui porte encore le nom du dernier Oberkämmerer, dont la famille eut comme précepteur Joseph Helfert, père de Joseph Alexander, futur président à vie de la Commission Centrale pour la Sauvegarde: grands juristes les deux<sup>21</sup>, Robert Musil les choisit comme modèles pour ébaucher le portrait du père de *l'Homme sans Qualités*.

Dans le lycée qui autrefois se nommait *I.R. Ginnasio di Brera*, il n'y avait pas de professeurs de philosophie, même enivrés de néoidealisme, qui pussent susciter l'attention pour tout ce qui n'était ni gnoséologie ni éthique pratique. *Hic locus, hic salta*.

Le contenu de vérité d'une proposition ne dépend pas de la forme dans laquelle elle est rédigée, avait théorisé Bernard Bolzano, et notamment, avait glosé Robert Zimmermann<sup>22</sup>, le maître de Riegl à l'Université de Vienne, ne dépend pas non plus de la langue dans laquelle elle est rédigée.

L'extension du concept de monument était donc une figure dans laquelle cherchait à survivre le cosmopolitisme des Lumières. Si l'on lira en tout ceci une senteur de suffisance, involontaire mais pourtant non moins lamentable, il faudra en accuser l'inconscient d'un vieux pays disparu, où, *comme il arrive ailleurs, on échangeait toujours un génie pour un dadais, mais on n'échangeait jamais, comme il arrive ailleurs, un dadais pour un génie*<sup>23</sup>.

### Notes

- 1 Bruno Reichlin: Sauvegarde du moderne: questions et enjeux en Faces 42\43 automne hiver 1997/98 pp. 3-5 «cette constante opposition entre création et conservation me semble déplacée et de mauvais augure pour la sauvegarde.»
- 2 G. Vasold, *Alois Riegl und die Kunstgeschichte als Kulturgeschichte. Überlegungen zum Frühwerk des Wiener Gelehrten*, Freiburg im Breisgau, Rombach Verlag, 2004
- 3 il riferimento è a Hans Tietze *Das Verhältnis der Denkmalpflege zum geistigen Leben der Gegenwart* in Tagung für Denkmalpflege, Wien, 1894
- 4 Carlo Ginzburg "Il formaggio e i vermi. Il cosmo di un mugnaio del Cinquecento" Turin Einaudi, 1976, avec l'avertissement que ce livre traduit en plusieurs langues ne dispense pas, pour mieux comprendre, de la lecture des autres textes dédiés par l'auteur aux aspects religieux de l'Italie du XVIème siècle.
- 5 Au tableau d'essor européen *Le régionalisme: architecture et identité* / sous la dir. de François Loyer et Bernard Toulhier; Paris, Ed. du patrimoine, 2001 on doit ajouter le point de départ national, Claude Vigato *L'architecture régionaliste: France, 1890-1950*, Paris, Norma 1994.
- 6 Gzregorz Grajewski *Die Kontinuität der Tradition. Denkmalpflege und Heimatschutz im Werk Hans Poelzigs* et Beate Störckuhl, *Reform und Innovation: Hans Poelzigs Ausstellungsbauten in Breslau (1904) und Posen (1911) en Hans Poelzig in Breslau – Architektur und Kunst 1900-1916*. hg. von Jerzy Illkosz und Beate Störckuhl, Delmenhorst, Aschenbeck und Holstein, 2000, pp.191-223 et 353 -389.

- 7 Pour une vision d'ensemble Norbert Bormann, «*Paul Schultze Naumburg 1869\1949- Maler, Publizist, Architekt- Vom Kulturreformer der Jahrhundertwende zum Kulturpolitiker im Dritten Reich*», Richard Bacht, Essen 1989.
- 8 Hans Tietze *Das Verhältnis der Denkmalpflege zum geistigen Leben der Gegenwart* in Tagung für Denkmalpflege, Münster 1921 p.55 suiv. cité en Christoff Friedrich Hellbrügge "Konservieren, nicht restaurieren. Bedeutungswandel und Anwendung eines Prinzips der Denkmalpflege im 20 Jahrhundert in Deutschland, Dissertation, Bonn 1991 p. 138.
- 9 Pour les deux, J. Divis Poinçons d'argent, Prag Artia 1976, Paris, Ed. de l'Amateur 1989, p 158.
- 10 Georg Dehio – Alois Riegl *Konservieren, nicht restaurieren –Streitschriften zur Denkmalpflege um 1900 mit einem Kommentar von Marion Wohlleben und einem Nachwort von Georg Mörsch Friedrich Vieweg & Sohn Braunschweig- Wiesbaden, 1988. Naturellement, Marion Wohlleben a parlé de „Gemeinsamkeiten und Gegensätze bei Dehio und Riegl ( p.11)*
- 11 Neue Strömungen in der Denkmalpflege en Mitteilungen der k.k. Zentralkommission für Erforschung und Erhaltung der Kunst und historischen Denkmale, Wien 1905, Dritte Folge, IV Band, S.85-104.
- 12 *Denkmalschutz und Denkmalpflege in neunzehnten Jahrhundert* publié à Strasbourg, J.H.Ed Heitz 1905, comme tiré à part et compris après dans Georg Dehio, *Kunsthistorische Aufsätze München- Berlin 1914.*
- 13 *Souvenirs de 1912: Rome, Hohkönigsburg Zürich et Berne, Rome et Naples* Lausanne, Hoirs d'Ad. Bourgeon, 1913.
- 14 "Rome, Edizioni di storia e letteratura, 1963; Einaudi, Turin 1977.
- 15 Maria Andalaro, ed. "La teoria del restauro nel Novecento da Riegl a Brandi, atti del convegno internazionale (Viterbo, 12 - 15 novembre 2003), Università degli Studi della Tuscia, Florence, Nardini, 2006
- 16 La référence est, évidemment, à Camillo Boito "I nostri vecchi monumenti. Sui marmi di San Marco» en *La Nuova Antologia* vol.XXX p.57 et "Questioni Pratiche di Belle Arti" Hoepli, Milan, 1893 p.18.
- 17 Giorgio Politi *Aristocrazia e potere politico nella Cremona di Filippo II* Milan, Sugarco, 1976 p.453.
- 18 Bruno Zevi "Saper vedere l'urbanistica" Turin, Einaudi, 1971, réédition simplifiée – on le sait -de "Biagio Rossetti, architetto ferrarese..." Turin, Einaudi 1960.
- 19 Marco Folin, „*Un ampliamento urbano della prima Età moderna: l'Addizione erculea di Ferrara, pp. 51-174; en Sistole/Diastole. Episodi di trasformazione urbana nell'Italia delle città*, a cura di M. Folin, Vénise, Istituto Veneto di Scienze, Lettere e Arti, 2006; et aussi Marco Folin *Rinascimento Estense. Politica, cultura, istituzioni di un antico stato italiano* Rome, Bari Laterza 2001, dont les bibliographie font état des études précédentes qui avaient déjà remis en question un quinzième siècle imaginaire.
- 20 Il suffit d'indiquer „Indagini su Piero“ dans ses deux éditions de 1981 et 1994 (Turin, Einaudi) mais il faudrait ajouter les autres essais des dernières années, qui témoignent d'une attention continue.
- 21 Walter Frodl, *Idee und Verwirklichung. Das Werden der staatlichen Denkmalpflege in Österreich* Böhlau, Wien Köln Graz 1988 pp.54-55 et Constantin Wurzbach von Tanneberg, *Biographisches Lexikon des Kaisertums Österreichs*. S.v. J.Helfert
- 22 Peter Stachel „*Philosophie in multiethnischen Milieu. Die „offizielle“ Schulphilosophie der österreichisch-ungarischen Monarchie als ein Weg in die Moderne*“ en Ákos Moravánszky (hg) „*Das entfernte Dorf – Moderne Kunst und ethnischer Artefakt*“, Böhlau, Wien-Köln-Weimar, 2002 pp. 137-169.
- 23 Robert Musil "Der Mann ohne Eigenschaften" Rowohlt, Berlin 1930, 1933, et 1962., Bd.I, I,8.



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**Cultural Heritage Process Charted:  
Defining Competences  
to Decide Educational Programs**

In my limited experience, conservation is taught as a set of components of the architect's skills. No doubt, it is correct that an architect has to be skilled in conservation, even only to give him/her some attitudes (sense of history, sense of diversity, attention to materiality...) which will be useful anyway. But, perhaps, this setting is a legacy of former times, when restoration came out from the mainstream of 19<sup>th</sup> century research for an "historical", meaningful architectural style. And to that same setting belongs the idea of designing/drawing as the absolute tool or expression mean of architects. But perhaps if an architect is sure that Project is the best and unique tool, he will hardly be educated enough to perform preservation as needed.

As I suppose that this Workshop in Genoa is held because we all are aware that Conservation is facing a lot of challenges in a becoming world, I think that the old settings have to be questioned. That is, we have to discuss the pivotal role of the main tool of an architect: the Project.

I think that, in a conservationist perspective, it would be a mistake to keep focusing Conservation Education only on the specialization of the architectural project. We can enrich education by means of analytical attitudes, attention to details (where one can meet God), awareness of new history, archaeology... in one word, culture. But project keeps being related to a linear process of production, similar to the process of building something new. The complex reality of heritage policies is still beyond, with its activities impossible to chart as a linear production process.

Not surprisingly, the medical metaphor (anamnesis, diagnosis, therapy...) is still very popular in our field, even if the leading scholars now are oriented to "prevention better than treating" and conservation as "care"<sup>1</sup>, but architectural project is not a tool for "care": you can perform a restoration with care, but the instruments of restoration are designed for the "cure" of some "disease".

If we insist on a holistic vision of the architect, we are avoiding the challenge of analysing the process and recognizing which skills are needed, when, why, and who holds the related stakes. Doing so, we are ignoring the multiplicity and complexity of historic preservation process, and conservation is reduced to a merely antagonistic role: conservationist is the Jimmy Cricket who announces the collateral damages of strategies which are decided elsewhere.

Therefore, as it is currently done for defining the educational profile of any profession, the problem of Conservation Education has to restart from the analysis of the process and of the skills required in order to obtain better results. From this analysis it will be easy to understand that architectural project is only one of the tools, perhaps the mightiest, surely the most dangerous to handle.

In the context of a recently accomplished research<sup>2</sup>, we tried to chart the actions concerning heritage in a diagram (Fig. 1) made up of seven spheres. Each sector is represented by a sphere because it is a recognised field of activity or interest, which in turn is charted: the process of regulation, of conservation, of enhancement, of management, of fruition, of promotion (education and communication), of fruition, of research.

Some of the hypotheses underlying the diagram are perhaps not endorsed by the whole scholarship. When we define a sphere of regulation including both the preservation activities performed by State offices and the territorial government performed by local Authorities, we mean that no preservation is effective without getting local

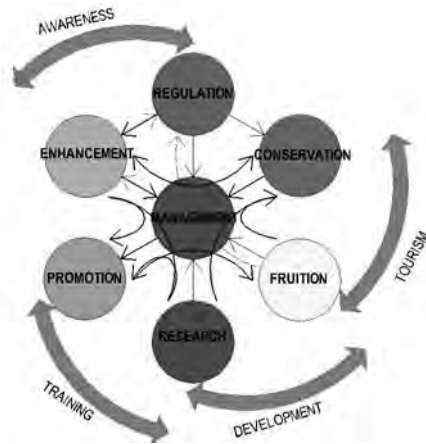


Fig. 1  
The diagram representing the process of preservation/enhancement of cultural heritage.

systems involved. Therefore the Regulation diagram describes a number of possible cooperative interactions between authorities, although there is, at least in Italy, a strong position whose vision is for a State preservation performed independently of local powers, and when needed even against the driving forces of the territorial transformation. In the matter of fact, I think that it is more interesting to chart the dialectic of this problem, whatever could be the level of sharing objectives and values between developers and preservationists.

Each process can be thought alone, and actually each process is often performed as if its sphere had no relationship with other ones. But what is interesting are the relationships, and the pivotal role of management.

Let us take, for example, Conservation and Enhancement. You can think of conservation without enhancement, or of enhancement without any stress on conservation's aims. Therefore it is possible and useful to have both diagrams charted. But the reality is not so simple. The noblest intents of preservation face the problem of fundraising, and when restoration goes on, a building will surely be enhanced. On the other hand, the target of increasing attractive assets for tourists could require restorations, which could probably be popularizing over-restorations, where too many stones are new, like at Pierrefonds. Therefore it is probably a mistake to part conservation and enhancement, but the choice of describing the two spheres separately enables to point out the responsibilities of doing one way or another. It is not so useful to judge what is better, or what fits with the best deontology: it is useful to underscore that, although architects are very important players in the territorial transformation, and restoration is the climax of the conservation process, in a restoration there are a lot of decisions which are taken before, deciding what will be restored and when, how much it will be funded, which will be the goals, who will be the architect in charge for the project, and so on. These are decisions of management. At this level it is possible to state whether a popularizing restoration is desired, or the target is to boost a conservation process involving skilled people, scientific means, open-minded studies...

I hope that the Reader will easily understand which is my favourite option, but I think that it is not a successful way that of preaching Conservation as if it could be the Way and the Truth. I think we have the duty to show why and how heritage manage-

ment could be a driving force for a sustainable development, while the misuse of heritage leads to unsatisfactory long-term results. And the first step is to show the tasks, the responsibilities, and therefore the skills needed to improve and to reach the goals.

If the paradigm of conservation has to change from cure to care, a new process has to be implemented, in which prevention and maintenance are not understood as lesser degrees of intervention<sup>3</sup>, but as different phases of a unique process. Italian legislation has made an important step in this direction, with the Code 42/2004: art. 29 says that "Conservation is obtained through a coherent, coordinated and planned activity of investigation, prevention, maintenance and restoration".

The aims of Conservation Education are then changing in turn, so that the main items could be:

- it will be necessary to form and train different kind of professionals, not only architects;
- planners (and decision makers) must be trained keeping in mind the relevance of heritage as a development factor, and must be given competences in detecting conservation problems;
- all architects (all technicians of building sector) must be aware of what is conservation nowadays;
- all professionals must learn to cooperate, avoiding absurd conflicts like that which opposed architects and restorers in Italy in the last decade;
- architects have to be aware of the role of their projecting in the non-linear chain of the process; this is not the old argument against architects you can find in the first documents of SPAB<sup>4</sup>, or in the well known editorial of Burlington Magazine against restorations in Tuscany<sup>5</sup>, but it is a shy memorandum that an evolving discipline calls professionals to continuing education;
- maintenance and prevention must gain a new role and a recognition both at scientific and professional level, sharing best practices<sup>6</sup>;
- all professional, technicians and workers have to be aware of the centrality of knowledge: not only gathering data, but enjoying the flavour of investigation and interpretation;
- all people involved in the process must become acquainted with information technologies.

The most relevant need is for a deep understanding of the connection between conservation and other disciplines, to avoid keeping conservation bound to the good old paradigms of 100 years ago. It is well known that concerns for environment arose already in 19th century, but if the words are the same, perhaps the conceptual background changed<sup>7</sup>. Ecology as "a science and an ethic of diversity and imperfection" is based on Darwin's theory, but also on decades of elaboration. And in this direction new alliances are needed to skip from conservation as pure defence to the vision of a world in co-evolution, where heritage could be the pivot of a new understanding and a new development process: that is, commuting from "limits to development" to "development of limits"<sup>8</sup>.



## Notes

1. For example, I could quote the sound work of L. Scheueremans, K. Van Balen, K. Brosens, D. Van Gemert, P. Smars, *The Church of Saint James at Leuven: Structural Assessment and Consolidation Measures*, in "International Journal of Architectural Heritage", 1, 1, 2007, pp. 82-107, organised in Anamnesis, Gathering Data, Analysis, Diagnosis, Therapy, Control. A discussion of the medical metaphor is in G.P. Treccani, *In principio era la cura. Medico e restauratore: un paragone da rivisitare*, in "Tema", 1996/3-4, pp. 133-138.
2. The title of the research (still unpublished) is *Analisi dei bisogni del mercato del lavoro e individuazione delle competenze innovative nel comparto Beni culturali*, in the framework of the *Polo Formativo per la valorizzazione dei beni culturali*, financed in 2006 by Lombardy Regional Government on the FSE platform. I wish to thank the leader partner Fondazione ENAIP Lombardia, the Fondazione Politecnico di Milano and all the partners in the project for all the support and the inspiring collaboration. I wish to thank Stefania Bossi and M. Paola Borgarino for their assistance.
3. Even B. Feilden, *Conservation of Historic Buildings*, third edition, Architectural Press (Elsevier), 2003, pp. 7-12, speaks of "Degrees of intervention" as if they were different tools to choice in a project.
4. C. Miele, "A Small Knot of Cultivated People": *William Morris and Ideologies of Protection*, in "Art Journal", Vol. 54, No. 2, 1995, p. 75.
5. *Restoration of Monuments in Tuscany*, in "The Burlington Magazine", Vol. 112, No. 813. (Dec., 1970), p. 789.
6. L. Verpoest, A. Stulens, *Monumentenwacht. A Monitoring and Maintenance System for the Cultural (Built) Heritage in the Flemish Region (Belgium)*, in T. Patricio, K. Van Balen, K. De Jonge (ed.), *Conservation in Changing Societies. Heritage and Development*, Proceedings of the international conference on the occasion of the 30th anniversary of the Raymond Lemaire International Centre for Conservation (1976-2006), Leuven, May 22-25 2006, Leuven 2006, pp. 191-198.
7. C. Gustafsson, J. Rosvall, *Integrated and sustainable conservation*, paper presented to *Changing Role and Relevance of Urban Conservation Charters*, 5th International Seminar on Urban Conservation, Recife, Brazil, 23 – 25 November 2007.
8. M. Ceruti, *Un'ecologia umanista*, in M. Callari Galli, ed., *Pensare la diversità*, Roma, Meltemi, 1998, p. 31.



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**Teaching Conservation/ Restoration  
in the Architectural Field:  
A Challenge for Public Institutions  
Protecting the Heritage**

This paper intends to treat in a related manner the possible answers to the first, second and third questions proposed in the workshop - what (and why), how to teach, and who teaches/should teach architectural conservation - with the aim of understanding to what extent teaching objectives and programmes in this sector respond effectively to the challenges set today for the conservation of our built heritage and how figures that are different from the permanent university teaching staff may contribute to the education of future generations of architects and other professionals involved with heritage conservation and stewardship.

## **Changes in cultural heritage conservation goals**

Over the decades, the scope and the object of the safeguard of architectural heritage (and consequently those of conservation) have enlarged, moving their focus from individual artefacts to towns, territories landscapes, systems of objects and their relationships up until the processes that have made them up. Besides, we have become more and more conscious of the role played by cultural heritage, in its wide acception, in nurturing the sense of identity and integrity of individuals, groups, 'communities' and contributing to build the future of human societies.

While in the past times, heritage protection concerns – and subsequently conservation - were confined to individual and isolated objects, which were deemed to possess a special, higher value that justified the investment of additional resources in order to guarantee their retention over time, today the notion of heritage has acquired a territorial dimension. From rural landscapes, to urban residential sectors or outdated industrial districts, we are well aware that retaining the qualities of a 'cultural landscape' or reclaiming in a durable manner a suburban area for mixed use, requires different strategies and instruments, elaborated at a different level, than those adoptable for the conservation/restoration of isolated buildings, whatever these two terms may mean - and the meaning of these two words is not an irrelevant question in discussing objectives and strategies of education in conservation.

The pressure of economic development and the energetic crisis of the 1970s have brought to the fore issues such as the need for balancing development with resources consumption, social and intergenerational equity, ecological fragility... and contributed to address architectural conservation towards a long-term, processual perspective. Architectural conservation came therefore to integrate (economical, ecological, social, financial...) sustainability and inclusiveness concerns, with energy efficiency, easy maintenance and adaptability objectives.

The shifting in the perception of what should be considered heritage, and therefore safeguarded, has brought conservation to face new challenges that we do not seem to be prepared to tackle with our current conceptual instruments, which often appear being no longer able to serve our goals. In fact, they were developed for different objectives than those we need today, or, if you will, for objectives that have proved to be inadequate to answer the question we have been keeping on asking to our heritage.

Nevertheless, new motivations to support the conservation/restoration our built heritage do not imply necessarily that 'old' issues have been solved or have lost their relevance. Questions about why and how to intervene on existing buildings maintain their actuality, as debates and outcomes of several conservation/ restoration works

clearly demonstrate. Finding good architectural solutions to the problems of re-use, rehabilitation and upgrading of ancient buildings or architectural complexes is still a central issue that cannot be solved at the policy level of the conservation process, but requires high skilled professionals in the traditional construction's technique, as well as structural behaviour, building material technology, heating and conditioning system, piping, electric supply in ancient buildings, among other disciplines.

### **New stakeholders and professional profiles in the conservation arena**

In parallel, the sensitivity towards our built heritage has increased and spread among society at large, also becoming one of the main points of the political agenda within the wider theme of sustainable development. In Italy, the recent reform of the Constitution has given a more relevant role in several areas, included heritage matters, to Regions, Provinces and Municipalities. Therefore, we have assisted to a flourishing of policies and programmes for the integrated conservation/ appraisal/ 'mise-en-valeur' of our heritage assets, carried on by a variety of public and private agencies. The integration of architectural conservation with territorial planning and economic development has modified the 'traditional' profile of heritage experts. New professionals and stakeholders, such as planners, geographers, and more recently economists, developers, on one side, and construction, insurance or energy companies, on the other, have entered the field of conservation, traditionally occupied by historians, archaeologists, architects and public institutions. Today, even bank foundations or other private stakeholders make their heritage policy and develop educational programmes in conservation, allocating funds according to their own agenda. This complex pattern of programmes, the reduction of public state funding, together with the strengthening of the regional and municipal institutional autonomy, have also modified and partly reduced the traditional role of the public and state level institutions in charge of heritage stewardship and protection.

Besides, today, heritage conservation activities are carried out within wider programmes, whose primary objectives are economic development, pursued through urban or territorial regeneration/ appraisal, and where heritage safeguard is only a 'side' goal, subordinated to the main ones.

It is in this multifaceted and 'fluid' panorama that professionals with competences in architectural conservation will find themselves to work in, and to succeed in ensuring the effective safeguard of our historic built environment, they need to possess capabilities that go beyond technical skills, however useful these may be.

### **Are current objectives and educators in conservation/ restoration adequate to face this new situation?**

Answering to this question requires that we first ask ourselves what we do need to hold in order to tackle these changes: what kind of professionals and which competences would be useful for the present and future day in order to achieve the improvement and not the impoverishment of our built environment?

Another level of questions regards which should be the competences possessed by educators, in general, and specifically by those who teach architectural conservation, to ensure effective educational and teaching results.

The changes in scope, objectives, and actors in heritage conservation practice do and should influence education in conservation, yet, educational/ teaching objectives cannot strictly follow those of conservation, at least, because the latter are subject to change, but, more importantly, because, to be successful, teaching should help students understanding how to deal with conservation (shifting) issues (objectives, ambiguities, hidden contradictions, practice...) and not only conservation disciplines/ methodologies/ techniques.

In my opinion, there are at least two levels to which we may try to answer to these questions. The first one is more general and concerns 'generic' competences that should be the objective of any form of education:

- Being aware of the complexity of the world
- Being able to manage such complexity
- Being able to govern multiple objectives
- Being able to make decisions in uncertain conditions
- Being able to take responsibility and justify, any decision made

The second level concerns the specific goals that conservation's teaching should pursue, the subjects that – and the way in which they – should be taught in programmes for conservation education to achieve such goals.

In the light of the above mentioned changes, education in conservation should first be able to help students to develop their ability to conjugate planning with the executive level, theory with practice, strategic vision with day-to-day actions. Besides, new, specific competences that may be attained through teaching additional subjects, such as heritage economics, planning and management or even legal framework for heritage protection and stewardship are needed, as well as more technical disciplines, i.e. installations technology for heritage buildings, design for accessible architecture, eco-architecture, etc.

As a matter of fact, the changes in architectural conservation vision and practice are only partly reflected by teaching schedules and educator profiles in the field of conservation/ restoration, at least in Italy.

In fact, only in few cases and generally within non academic initiatives, which have been flourishing in recent years, we may find treated subjects that are not part of the traditional curricula of conservation education.

However, the introduction of new subjects in conservation teaching will make a real difference only if these will be taught in relation to the other, more 'traditional', ones (i.e. history of architecture, archaeology, technology of architecture or conservation related scientific disciplines). The educational dare does not lie in providing additional information on matters that may be related to heritage safeguard/ conservation but in building bridges among the various subjects and disciplines that intervene in the conservation process, maintaining the focus on its primary objectives.

Similarly, in the academic realm the background profile of those involved in teaching conservation/ restoration is still prevalently referred to 'traditional' conservation-related disciplines, while planners, economists, managers, lawyers, real estate operators or developers... are today involved in professionalizing Master programmes or short-term training courses carried out outside university.

The enlargement of the teachers' background spectrum may be greeted as a positive element which offers students and teachers belonging to the academic realm the possibility to get in touch – as outsiders with the help of insiders – with the logics, mechanisms and future prospects of the contemporary actual world of heritage conservation planning and practice. The knowledge of how 'things really work' may be a significant contribution to shift objectives, where and when necessary, to select and to provide further needed competences that can be absorbed by the heritage conservation market, and to help students and young professionals develop strategies to achieve their goals.

### **The possible educational role and challenges of the technical staff of the Ministry of Culture**

We find professionals of the peripheral offices of the Ministry of Culture among the few figures who are commonly involved in teaching conservation both within bachelor, masters and postgraduate programmes and, at the same time, having their own job apart from the University activities.

This frequent occurrence is due to a double circumstance: 1) the conviction that the natural professional outlet for those attending Schools of Specialization and postgraduate 'masters' will be entering the Ministry of Culture or other public institutions as members of permanent staff (even if, actually, only few of them will have this opportunity - also due to the ministerial budget restrictions - while all others will have to find out their own space in the professional world); and 2) the close relationship between the academics and the technical staff of the Ministry of Culture, due to their complementary, and sometimes competing, cultural and institutional role.

The presence of technical officers of the Ministry of Culture (MiBAC) among the teaching staff of undergraduate and post-graduate educational programmes in the field of conservation may bring reciprocal advantages, which are often underestimated by both sides.

On one hand, the experience matured by ministerial officers in heritage conservation and stewardship, which often involves the interaction of different public institutions and private subjects, may help students to build a realistic picture of the conditions in which today conservation and safeguard activity are carried out - from the feasibility phase to the realization - and of the main stakeholders involved in these processes.

Besides, ministerial officers are called to deal with the daily implementation of legal provisions and administrative procedures for heritage protection and, therefore, they are in the best position to explain the hidden implications and the side effects of the application of the norms and their influence on heritage safeguard and conservation. They also have a general vision of the complex and multifaceted world of conservation practice and may help outline which competences would be necessary to the future professionals for succeeding in the field and bringing their own contribution to the advancement of architectural conservation goals and results.

Furthermore, technical officers of the Ministry are themselves conservation professionals: they project and conduct conservation works and may share their own technical experience with students. They can offer a variety of examples of problems and adopted solutions, both successful and unsuccessful, that can enrich and articulate

the academic knowledge of students: the critical analysis of case studies contributes to develop the students' ability to prioritize problems and assess costs and benefits of each choice.

Finally, the possible involvement of graduates in real programmes or projects carried out by the Ministry – as it has happened for the Genoa's School of Specialization thanks to on-purpose agreements between the School and the peripheral offices of the MiBAC - would allow young professionals to experiment directly and in a real situation their methodological and technical skills.

On the other hand, the technical staff of the Ministry may use this opportunity of a didactic experience as a stage for thinking at a general level the sense of their work (why and for whom do we try to conserve our heritage? How can we achieve effectiveness? What should be re-addressed in our daily practice? Which may be our task in educating the future generations of 'heritage professionals?') in a phase in which their role, responsibilities and work are undergoing profound changes and the ministry finds itself to be no longer the only or the main actor of conservation policies and projects due to the legal and institutional reforms that have been occurring in our country over the last 15 years.

#### Note

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