

# STUDY

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## Questionnaire for the State of the Art

in educating sustainability and heritage

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**Enhancing of Heritage Awareness and  
Sustainability of Built Environment in  
Architectural and Urban Design Higher Education**

2021



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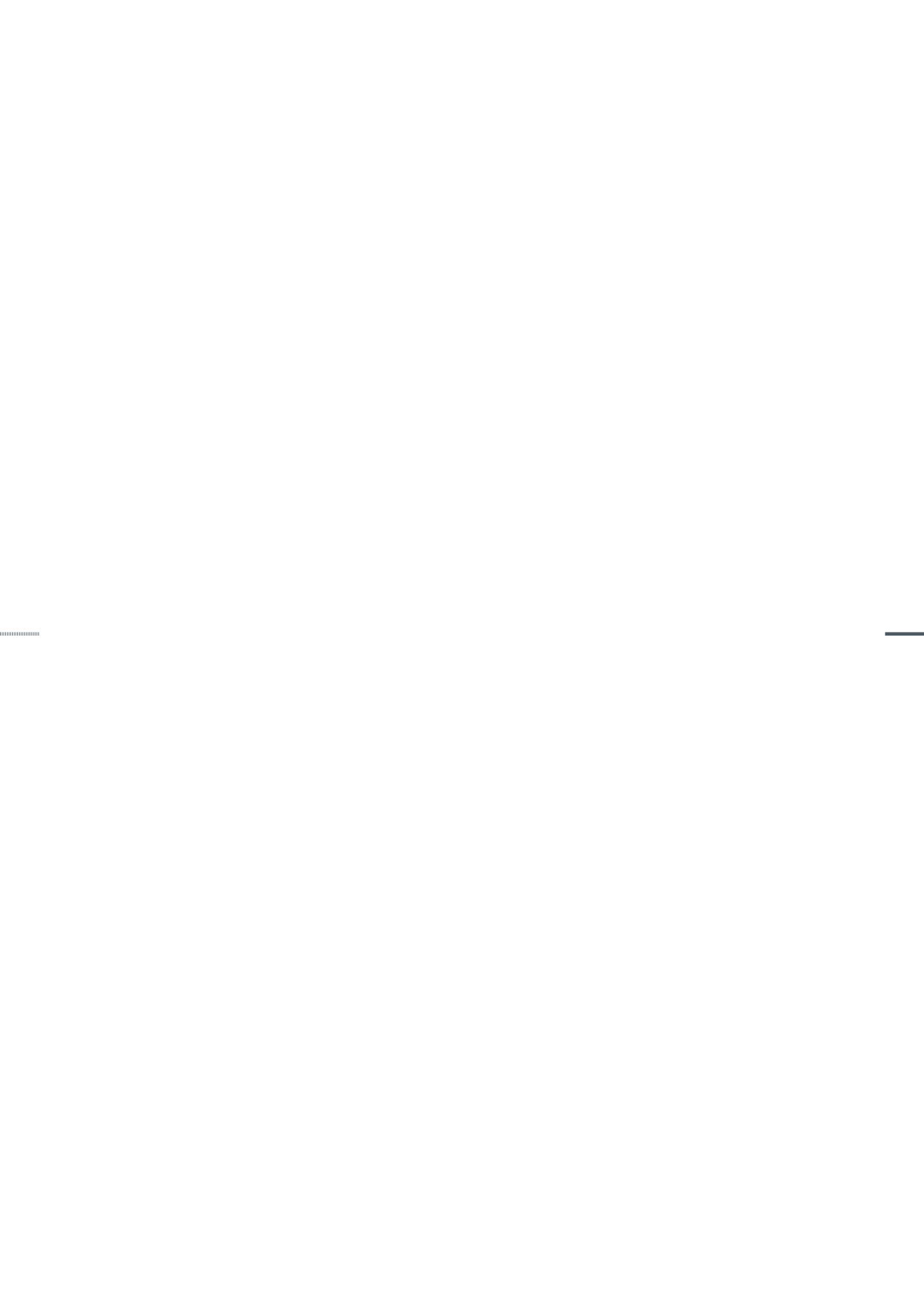
## STUDY: Questionnaire for the State of the Art in educating sustainability and heritage

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ITALY

✕

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ITALY

02

ABSTRACT / ITALY / Iuav



*The collected data will be crucial for the implementation of higher education programs. The qualitative analyses of the experts' questionnaires highlight the central and innovative perspective of Sustainability and Cultural Heritage learning in urban and architectural design.*

*The report aims to collect the information from the expert questionnaires and relate it to a wide cultural and theoretical frame. The primary references for Sustainability and Cultural Heritage learning are: the increase of the awareness from the Cultural Heritage awareness of the communities, the sharing of quality principles for interventions on Cultural Heritage and the importance of cultural debate concerning Heritage values and Sustainability in our contemporary world.*

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Researcher Academic  
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Practitioner



Giovanna  
Battista



Marco  
Chiuso

# A3

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authorities members or  
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Luisa  
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Society

## INTRODUCTION



The Experts Questionnaires dissemination targeted selected experts and practitioners. This activity involved local experts, except Chiara Occelli from the Italian National University Council (Consiglio Universitario Nazionale - CUN) and professor at the Politecnico di Torino, Marco Chiuso from SABAP-Lucca (Superintendence for Architectural Heritage and Landscape in Lucca), Giovanna Battista from SABAP-VR (Superintendence for Architectural Heritage and Landscape in Verona) and Elena Jachia from Cariplo Foundation.

The link to the questionnaires and the interactive document were sent by e-mail to more than ten experts and practitioners (15 in total).

The luav Team contacted experts and practitioners with multiple e-mail starting from the 6th April.

### 6th April 2021:

- Arch. Giovanna Battista (Architect - Superintende for Architectural Heritage and Landscape in Verona)
- Arch. Elisa Brusegan (Architect, Correspondent - Treviso Order of Architects magazine "Pièra Magazine", charge of the luav Alumni Association Board of Directors)
- Eng. Mariano Carraro (President - Engineers Order of Venice)
- Luisa Cattozzo (Council member / Assessor - Municipality of Rovigo)
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- Arch. Raffaella Gianello (Architect in Charge of the technical office - Municipality of Verona)
- Elena Jachia (Director of the Environment Area – Cariplo Foundation - Cassa di Risparmio delle Provincie Lombarde)
- Arch. Alberto Muffato (Director Sinergo S.p.a.)
- Professor Francesco Musco (Professor at the Università luav di Venezia)
- Professor Chiara Occelli (councillor of National University Council and professor at the Politecnico di Torino)

### 17th April 2021:

- Arch. Marco Chiuso (Architect - Superintendence for Architectural Heritage and Landscape in Lucca)

### 26th April 2021:

- Professor Davide Del Curto (professor at the Politecnico di Milano)
- Giuseppe Rodighiero (Council member / Assessor - Municipality of Brendola)
- Guido Driussi (Scientific Director Arcadia Ricerche s.r.l.)

Due to the short deadline, the data collected respect the minimum parameter settled (9 questionnaires completed on April 29th).

One, Professor Francesco Musco, did not complete the questionnaire on the Limesurvey platform.

Experts and practitioners answered the questionnaire during a recorded interview in Italian language. The data collected were translated and uploaded in English version to the Limesurvey Database. Extracts from the recorded interviews will be available with English subtitles for the dissemination project.

The experts belong to different categories, they were selected in both Cultural Heritage and Sustainability field. The luav Team selected a homogeneous distribution, but each expert chose the area referring to their work. Basing on their CVs, that the number of participants for each category involved is:

### 1 Researcher/ Academic / Educator

- Professor Chiara Occelli (councillor of National University Council and professor at the Politecnico di Torino)

### 2 Practitioners

- Arch. Elisa Brusegan (Architect, Correspondent - Treviso Order of Architects magazine "Pièra Magazine", charge of the luav Alumni Association Board of Directors)
- Arch. Mario Gemin (Architect and Treasurer of Professional Order of architects, urban planners, landscape designers and conservators of Treviso Province)

### 2 Policy Makers (Government or local authorities' members or consultants)

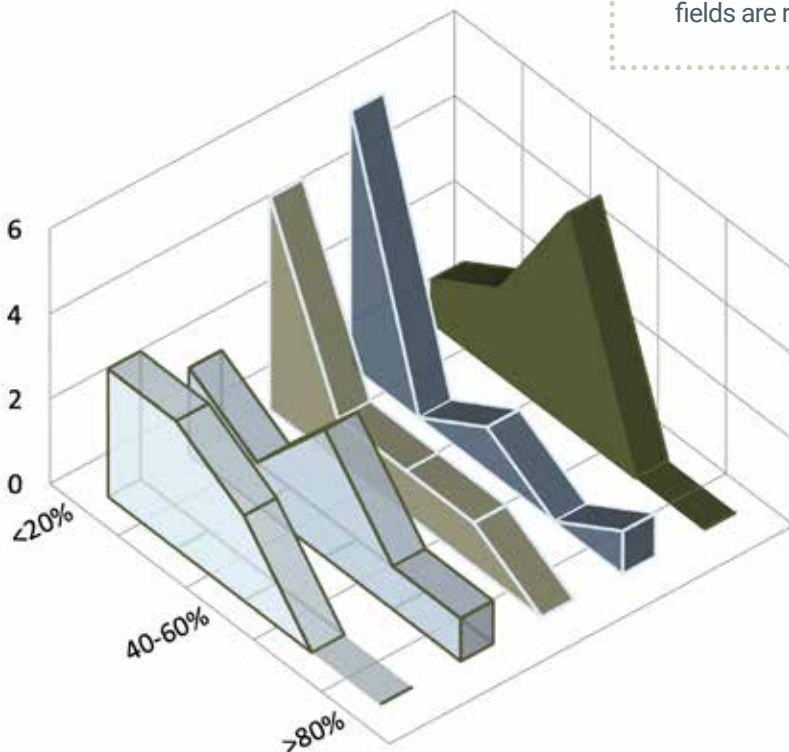
- Arch. Giovanna Battista (Architect - Superintendence for Architectural Heritage and Landscape in Verona)

- Arch. Marco Chiuso (Architect - Superintendence for Architectural Heritage and Landscape in Lucca)
- 2 Decision Maker in Public administration (Ephorates, Ministries, Devolved Administration)
- Luisa Cattozzo (Council member / Assessor - Municipality of Rovigo)
- Arch. Raffaella Gianello (Architect in Charge of the technical office - Municipality of Verona)
- 2 Decision Makers (in NGO / Professional Society)
- Eng. Mariano Carraro (President - Engineers Order of Venice)
- Elena Jachia (Director of the Environment Area –Cariplo Foundation)

Fig 1. Mapping of the various design scales of practice (urban planning, landscape, urban design, architectural design, construction detailing) that the experts are engaged in (responses to Q2.3)

## respondents' studies or professional background

The group of experts is heterogeneous for what concern working fields, genders, specialisations, and academic backgrounds. Most of the interviewees have a 5-year integrated Diploma, and five of them have a PhD. They all have solid experience (all more than five years) in architecture (six of them), engineering practice (Mariano Carraro), or the planning and environmental field (Luisa Cattozzo and Elena Jachia). At the same time, some of them have collaborated or worked in academic institutions as tutors (Arch. Elisa Brusegan, Arch. Marco Chiuso), as guests and critics (Arch. Giovanna Battista, Arch. Raffaella Gianello), as adjunct professor (Arch. Mario Gemin) or associate professor (Professor Chiara Ocelli). Sustainability and/or Cultural Heritage issues focus on their academic and professional activities. The more relevant primary scales of architectural and urban design in their working field are the Architectural and the Landscape design (five experts said these fields are relevant at 40-60%).



**Q2.3**  
**Proportion of Different Scales of Design in the Experts' Workfield**

- Construction detailing
- Architecture
- Urban design
- Urban planning
- Landscape design

# PRESENCE/AWARENESS OF ISSUES OF SUSTAINABILITY AND HERITAGE IN PRACTICE

## THE IMPORTANCE / AWARENESS OF SUSTAINABILITY AND HERITAGE IN PRACTICE/RESEARCH



The practitioners express a common consideration about a good understanding regarding the general topics of the awareness about Sustainability and Cultural Heritage in the architectural practice. The most relevant ideas are:

- the Sustainability issues are widely spread and understood problem because of a consolidated debate;
- Cultural Heritage is a wide concept that should be addressed not only from an architectural perspective but also in a systemic context of territorial and landscape relations;
- the idea of an interdisciplinary approach between different disciplines involved in the field of architectural academic programs and practice;
- the Sustainability/Cultural Heritage relationship is a pivotal issue from a theoretical, educational and practice perspective.

Almost all the experts share the idea that legislative guidelines lead to Cultural Heritage and Sustainability issues. The analysis highlights how authorities, practitioners and clients have different perspectives about these themes. The former two have a shared awareness of enhancing what is already built and try to do so with a sustainable approach. In contrast, the last ones do not share experts' perspective and consider a less extensive idea of the theme of Sustainability. Professor Chiara Ocelli reminds the Universities' central role (Third Stream) to increase the awareness of Cultural

Heritage and Sustainability issues through local communities' inclusion in research, regeneration and enhancing projects.

About the awareness of colleagues, collaborators, and other experts, the Government or local authorities' members and Decision Makers in Public administration think that their colleagues and collaborators are aware of these themes and can deal with them properly. There is the necessity of a better understanding of the themes regarding Cultural Heritage (Giovanna Battista, Marco Chiuso) and a more sensibility towards Sustainability (Luisa Cattozzo, Raffaella Gianello).

All the experts and practitioners agree to raise the attention on Sustainability and Cultural Heritage themes in educational programs. They suggest developing Sustainability and Cultural Heritage topics in academic practice and specific activities such as internship, workshop, seminars etc.



”

REUSE AND RESILIENCE ARE THE MAIN THEMES IN MY PROFESSIONAL ACTIVITY. REUSE IS A SUBJECT STRONGLY ADVANCED BY THE LATEST ITALIAN AND REGIONAL LAWS. THE CHALLENGE FOR ARCHITECTS IS TO RECONVERT AND REUSE WHAT EXISTS WITH A SUSTAINABLE APPROACH (CONSIDERING SOCIAL, CULTURAL AND ENVIRONMENTAL SUSTAINABILITY)

”

**Arch. Elisa Brusegan**  
Architect, Correspondent -  
Treviso Order of Architects  
magazine "Pièra Magazine",  
charge of the luav Alumni  
Association Board of Directors



”

REUSE AND CULTURAL HERITAGE VALUES PRESERVATION ARE SOMETIMES IN CONTRAST. THE ITALIAN MINISTRY'S GUIDELINES EXPRESS THE POSSIBILITY TO TRANSFORM HISTORICAL BUILDINGS BY RESPECTING CULTURAL IDENTITY AND HISTORICAL VALUES. IF PARAMETERS (SUCH AS SAFETY PARAMETERS) CHANGE THE ASSET OF THE BUILDING VALUES, THEN THE BUILDING'S FUNCTION SHOULD CHANGE.

”

**Arch. Marco Chiuso, Architect -  
Superintendency for Architectural  
Heritage and Landscape in Lucca**



”

THERE IS AN INCREASING AWARENESS CONCERNING CULTURAL HERITAGE INTERVENTIONS, AMONG THE YOUNG PRACTITIONERS. MORE ATTENTION IS PAID TO THE HISTORY AND THE TRADITIONAL CONSTRUCTION TECHNIQUES. ARCHITECTURAL AND ENGINEERING PROPOSAL ON CULTURAL HERITAGE DOES NOT AIM TO RENOVATE BUT IMPROVE THE BUILDING

”

**Ing. Mariano Carraro**  
President - Engineers Order of  
Venice

## RELEVANCE OF KEY CONCEPTS IN PRACTICE/ACADEMIA/DECISION MAKING/POLICY MAKING



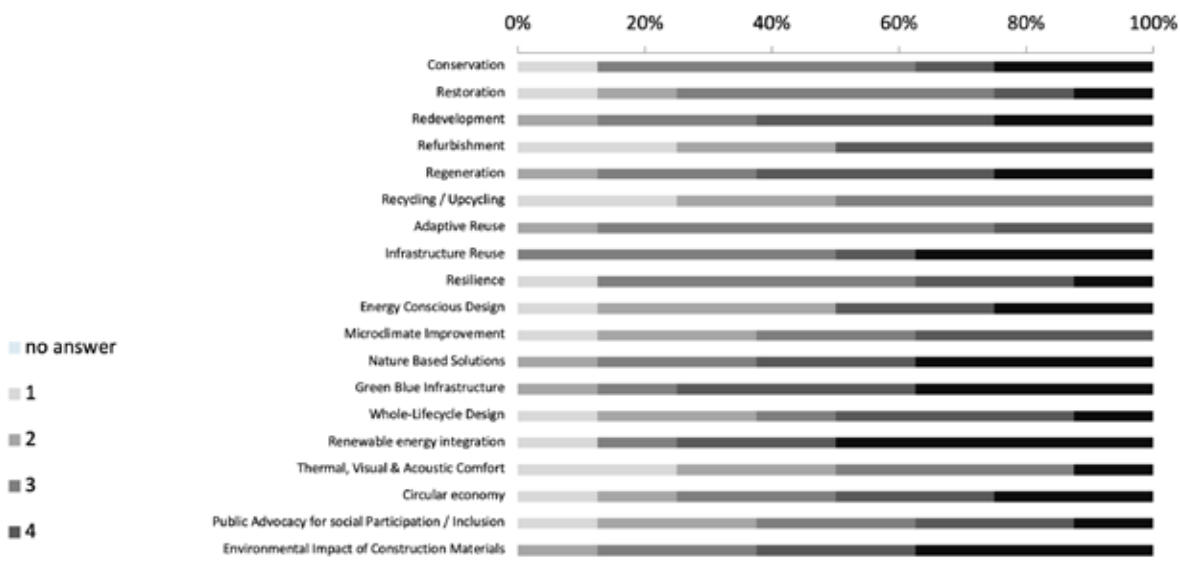
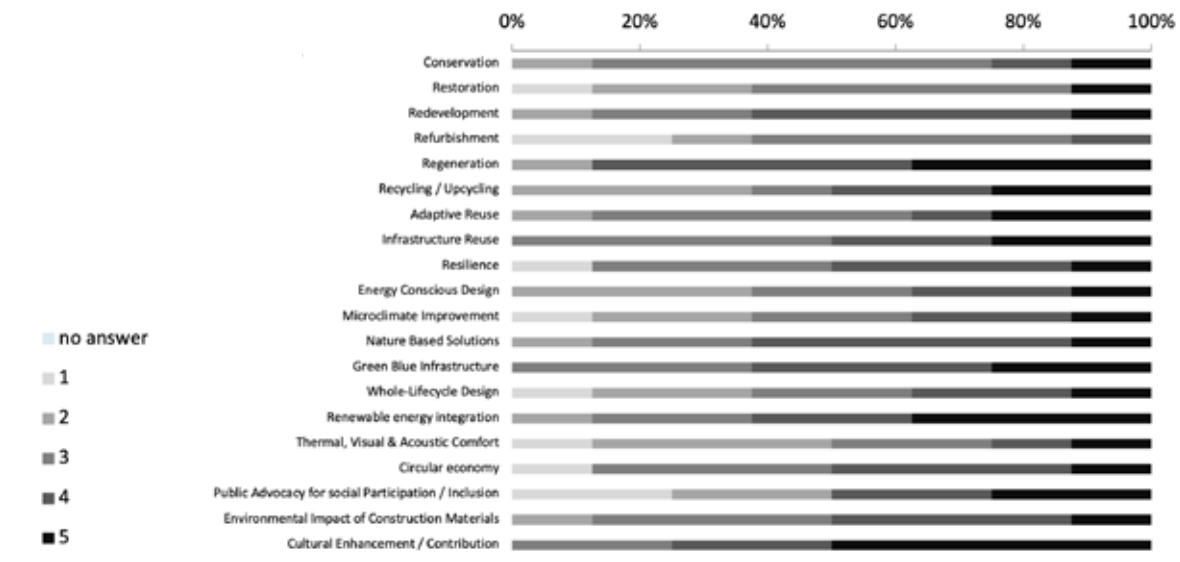
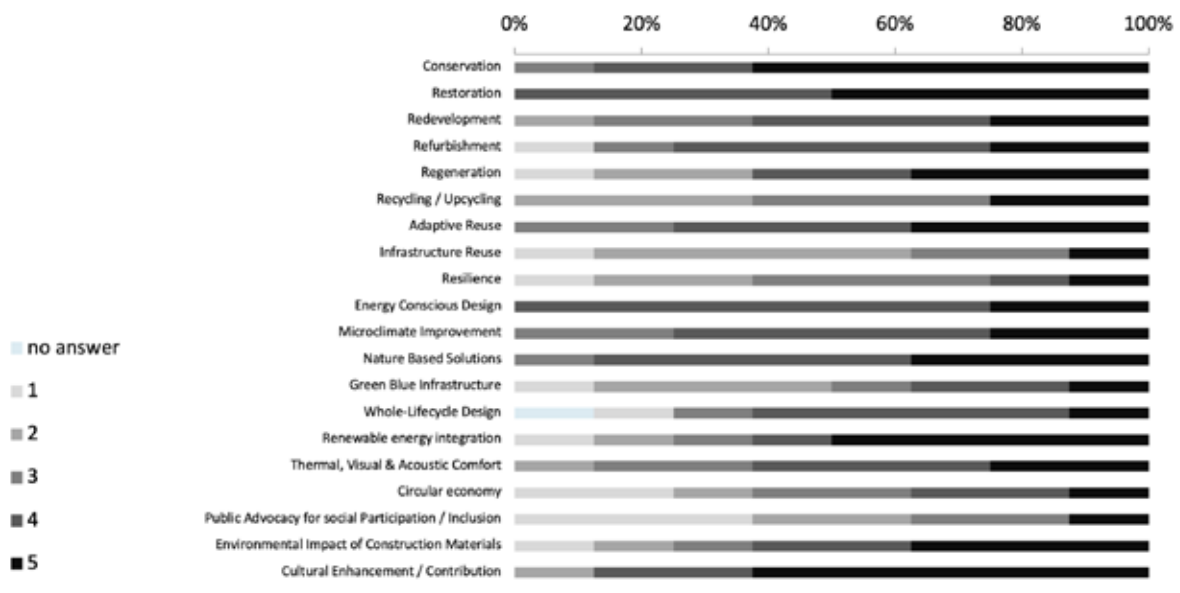
For almost all the experts, the key concepts of *Reuse*, *Restoration*, and *Resilience* represent daily activities issues. The experts consider *Reuse* and *Resilience* as the most suitable key concepts in contemporary architecture.

The central and shared idea about these key concepts is related to the Cultural Heritage's need to be reinterpreted in a multifunctional way, capable of adapting to changes in needs and opportunities (Luisa Cattozzo). In these terms, *Reuse* is the most interesting one on a broader meaning, comprehending *Resilience* and *Restoration* concepts (Raffella Gianello). Elisa Brusegan, Mariano Carraro, Mario Gemin, and Elena Jachia report the Veneto Regional Law 14/2017 about soil's exploitation as one of Italy's central themes. The challenge of contemporaneity, in the experts' opinion, is to reconvert and reuse what already exists using cultural assets in respectful ways to safeguard their meanings, values and maintain the role as a source of inspiration for local communities and future generations (Giovanna Battista, Elisa Brusegan, Marco Chiuso, Chiara Occelli). Professor Chiara Occelli and Architect Giovanna Battista observe that *Reuse*, *Restoration*, and *Resilience* are related to different scale projects. On a small scale (historical or monumental architecture), *Restoration* and *Conservation* concern the material data. The designs related to Sustainability are more problematic, while *Resilience*, referring to a system or landscape, is more compatible with Sustainability and Cultural Heritage.

The survey reports (Figure 02) that the key concepts' relevance changes at the different design scales (Architecture, Urban and Landscape design scale). The few key concepts that maintain a high score at all the design scales are *Regeneration* and *Cultural Enhancement*. At the Architectural scale *Conservation*, *Restoration*, *Refurbishment*, *Adaptive Reuse*, *Energy*

*Conscious Design* and *Nature Base Solution* are the most relevant concept. According to this premise, it can be assumed that Cultural Heritage awareness is related to Sustainability and *reuse* at Architecture and detail scale. At the urban and landscape scale, the most evaluated concepts are related to *Regeneration* and *Reuse*.

Fig 2. Mapping of Key Concepts' relevance in the context of Design



## PILLARS OF SUSTAINABILITY IN THE DECISION MAKING PROCESS



Almost all the experts referred to Sustainability as a socio-cultural theme that helps to create society's ideas and design actions. They addressed the Conservation of Cultural Heritage as a strategic action aiming towards Sustainability (Chiara Occelli). On the other hand, it is highlighted that in Italy, it is not easy to reach a widespread consciousness of Sustainability cultural pillar as in other countries for different reasons, such as:

- the labelling and the political exploitation of themes concerning Sustainability, environmental preservation, and Cultural Heritage enhancement (Battista),
- the missing relation between the new buildings and the Social, Cultural and Environmental context where they are built (Mario Gemin),
- the equilibrium between safeguarding and conservation on the one hand, and dynamic approaches to respectful and compatible Reuse and management on the other (Marco Chiuso);
- the absence of quality in the architectural space's demand (Elisa Brusegan).

Despite the awareness of these issues related to the Sustainability pillars, experts state the importance of a "shared Cultural Heritage" (as in the 2018 principles European Year of Heritage), a better social inclusion, and preservation of the environment (avoiding soil exploitation). The main objective for Professor Chiara Occelli is to change people's mindset through a better relationship between academic research and local communities. Architect Marco Chiuso believes that the cultural pillar of Sustainability in Cultural Heritage is pivotal. He affirms the possibility to transform a historical building by respecting its cultural identity and historical value (referring to the Italian Code for Cultural Heritage and Landscape and the Compatibility criteria from the European Quality Principles For Eu-Funded Interventions With Potential Impact Upon Cultural Heritage). And he highlights how the temporary abandonment is always a problem for the building's Sustainability in conservation and transmission to future generations.



**A MULTIDISCIPLINARY APPROACH TO SUSTAINABILITY IS THE MOST IMPORTANT ADDITION IN DESIGN PRACTICE TO CONNECT PEOPLE, TERRITORIES AND RESOURCES. IN THIS CONTEXT, SUSTAINABILITY SHOULD NOT BE A GOAL BUT THE ACHIEVEMENT OF PROPOSITIVE RESULTS**

**SUSTAINABLE PRINCIPLES ARE EFFECTIVE IF CONSIDERED IN A SYSTEMATIC DECISION-MAKING PROCESSES THROUGH THE ACTIVE INVOLVEMENT OF CITIZENS AND STAKEHOLDERS. THE RECOGNITION BETWEEN ACTORS, STAKEHOLDERS, TERRITORIAL ELEMENTS AND RESOURCES IS ESSENTIAL TO ADD VALUE TO THESE DECISION-MAKING PROCESSES."**



**Dott.ssa Luisa Cattozzo  
Council member / Assessor -  
Municipality of Rovigo**



# COMPETENCES IN RELATION TO SUSTAINABILITY AND HERITAGE IN PRACTICE

## AWARENESS OF SKILL LEVEL OF GRADUATES FROM ACADEMIC STUDY PROGRAMS DEALING WITH SUSTAINABILITY AND/OR CULTURAL HERITAGE



All the experts recognise an ever-growing interest and attention in academic study programs towards Cultural Heritage and Sustainability themes. They reported that they had noticed it from the several cooperations with young graduates from academic study programs dealing with Sustainability and/or Cultural Heritage they had in the recent ten years. Mariano Carraro, Luisa Cattozzo, Elena Jachia and Raffaella Gianello underline that the collaboration with graduated students represents continuous professional growth for the whole work team because they have a higher awareness of the latest and newest discoveries in technical and research fields about Sustainability and Cultural Heritage. Architect Elisa Brusegan noticed that experts who graduated in engineering manage Sustainability issues in a more specific and technical aspect while architects manage the inputs from different fields in a holistic perspective.

Architects Elisa Brusegan, Giovanna Battista and Raffaella Gianello and Professor Chiara Occelli state that Sustainability and Cultural Heritage issues are complex. It could be relevant to deal with them at a postgraduate educational level. For example, Specialisation Schools' learning programs guarantee highly qualified specialists in the field of Cultural Heritage, Landscape and Sustainability. These specialists will be able to draw projects and direct the execution of complex commissions. They will have a deep methodological, theoretical, and scientific preparation. These learning programs help young experts during working activities

to understand deeper the compromises between safeguarding and dynamic approaches (Giovanna Battista, Marco Chiuso, Chiara Occelli). Almost all the experts agree to consider the Sustainability and Cultural Heritage issues as interdisciplinary themes, a chance to work and discuss with different professional figures and to understand each field's peculiarity.



**GRADUATED STUDENTS, WHO WORK IN SUSTAINABILITY AND CULTURAL HERITAGE, COULD BENEFIT FROM ATTENDING SPECIALIZATION SCHOOLS TO IMPLEMENT THEIR AWARENESS ABOUT THE ROLE OF CULTURAL HERITAGE IN SUSTAINABLE DEVELOPMENT.**



**Arch. Giovanna Battista  
Architect - Superintendency  
for Architectural Heritage and  
Landscape in Verona, Rovigo e  
Vicenza**

## QUALITY AND LEVEL OF SKILLS AND KNOWLEDGE OBTAINED FROM ACADEMIC EDUCATION IN RELATION TO THOSE EXPANDED IN THE WORK ENVIRONMENT



The analysis of the Q3.2a question confirms the results of the 2.3.2 session. The balancing between Skills obtained through academic programs and Skills obtained through practice respect the ideas express in the question: the educational programs should aim to give the fundamental tools and knowledge: practice should be a continuous learning process implemented during the working activities.

The experts share the idea that University should educate people to a more open-minded approach, capable of discussing and dealing with complex scenarios. Teaching should aim to give students scientific, theoretical, and technological tools to design with a creative/cultural approach and help them develop autonomous and critical thought (Elisa Brusegan, Chiara Occelli). The experts express the necessity of a better understanding of basic knowledge (Mario Gemin) and long-life learning to manage the changing state of the art (Mariano Carraro, Marco Chiuso, Mario Gemin). All experts and practitioners recommend pursuing local, national and international experiences promotion at different academic levels (internship, Erasmus exchanges, Erasmus projects) to broaden students' case studies knowledge and train them to a multiscale and multicultural vision. It is fundamental for students to communicate with the professional world, the local areas, and the institutions to understand Sustainability and Cultural Heritage issues during academic careers (Raffaella Gianello, Elena Jachia).

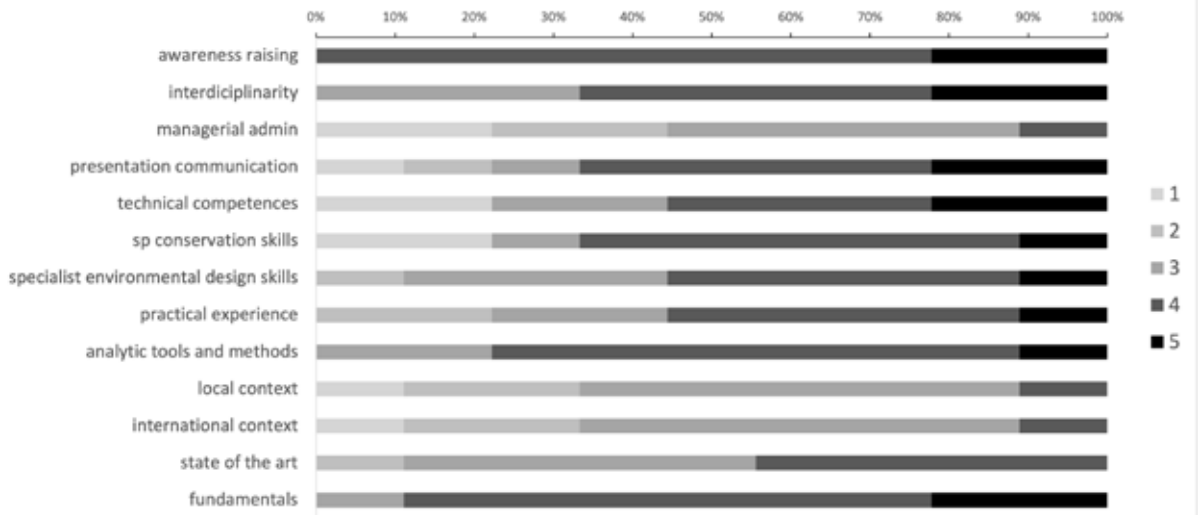


**SINCE SUSTAINABILITY AND CULTURAL HERITAGE DO NOT HAVE A UNIQUE DEFINITION, THEY ARE OPPORTUNITIES FOR DISCUSSION WITH COLLEAGUES, COLLABORATORS, AND PROFESSIONALS FROM DIFFERENT ACADEMIC FIELDS. CULTURAL HERITAGE AND SUSTAINABILITY FIELDS SHOULD DIALOGUE MORE TO SUPPORT AN INFORMED DEBATE AND CREATE SHARED KNOWLEDGE**



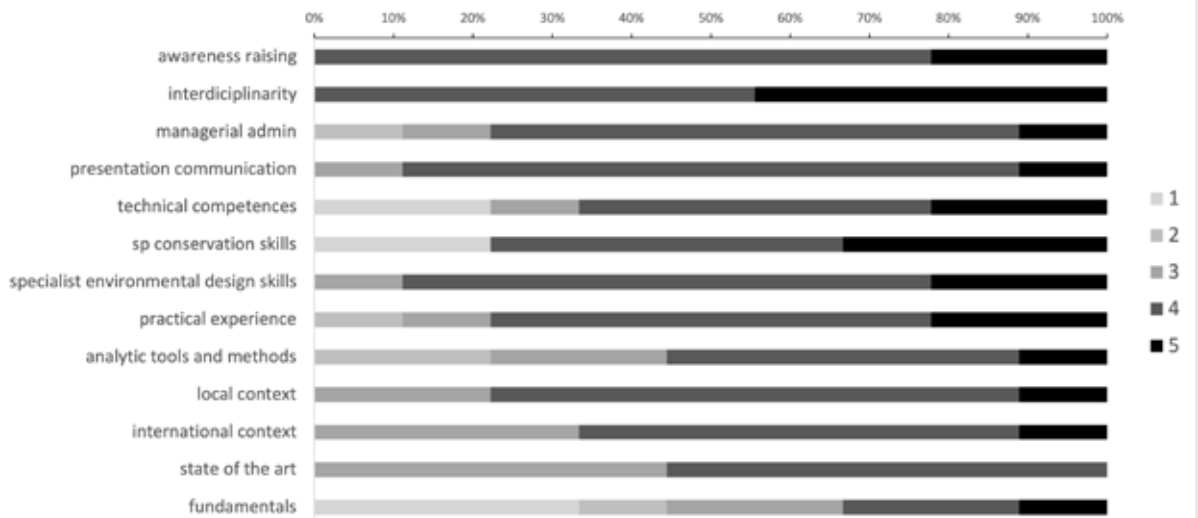
**Professor Chiara Occelli  
Councillor of National University  
Council and professor at the  
Politecnico di Torino**

**Q3.2a Skills obtained through academic programs**



ACADEMIC PROGRAMS

**Q3.2a Skills obtained through practice**



PRACTICE

Fig 3. Mapping of the quality and level of skills and knowledge of graduates.

# REQUIREMENTS IN THE CONTEXT OF ACADEMIC PROGRAMS ON SUSTAINABILITY AND HERITAGE

## IDENTIFYING AND OVERCOMING KNOWLEDGE GAPS IN EXISTING ACADEMIC PROGRAMS



All practitioners and experts acknowledge a distance between the theoretical and practical subjects on the one hand and the systemic analysis and design skills on the other one. During the interviews, emerged the necessity to discuss those topics from different fields to create shared knowledge and, therefore, increase an informed debate (Elisa Brusegan, Mariano Carraro, Chiara Ocelli).

The gaps in the knowledge regarding Sustainability and Cultural Heritage are multiple according to different points of view. The Sustainability problem is related to the multiplicity of definitions and the specific functions or specialist technical tools referred to it (Luisa Cattozzo, Mario Gemin). The Cultural Heritage problem is associated with the need for a strong interdisciplinary among the design team (Giovanna Battista, Elisa Brusegan). Architect Elisa Brusegan, Mario Gemin and Giovanna Battista consider manual learning an essential tool in Architectural and Urban Design Higher Education. The most important educational experiences that help students to obtain the ability to face difficult practice situations are:

- educational reference case studies (Giovanna Battista),
- architectural competitions with an interdisciplinary team and international workshops (Elisa Brusegan),
- training internships in professional offices or field-specific companies, perhaps abroad, before and after graduating (Giovanna Battista, Mariano Carraro, Mario Gemin, Raffaella Gianello).

Professor Chiara Ocelli involved a third fundamental subject, the Community. She hopes that University will hold an ever-closer

debate about socially relevant themes in contemporaneity. She suggested studios and workshops on relevant issues for local communities with collaborative observation sessions and research result presentations as sharing experiences with the University and society. In line with the principles from Faro Convention - 2005, education programs promote a better understanding of Heritage and its relationship to communities and society. Academic research should recognise the place, the meanings and uses that people assign to them. This approach should help finding solutions to the problematic equilibrium between Cultural Heritage preservation and Sustainability dynamic approaches.



**THEORETICAL FRAME AND WORKING EXPERIENCE ARE EQUALLY IMPORTANT IN ACADEMIC PROGRAMS. EDUCATIONAL PATHS SHOULD AIM TO PREPARE PROFESSIONAL FIGURES AWARE OF CULTURAL HERITAGE'S TRANSFORMATION AND CONVEY PAST-TIME VALUES. INCREASING AND IMPLEMENTING ARCHITECTS' CRITICAL THINKING IS NECESSARY TO GRANT THEM THE OPPORTUNITY TO OBTAIN A RELEVANT ROLE IN SOCIETY.**



**Arch. Mario Gemin, Architect and Treasurer of Professional Order of architects, urban planners, landscape designers and conservators of Treviso Province**

## BALANCING THEORY, TOOLS AND PRACTICAL TRAINING IN ACADEMIC PROGRAMS



Experts and practitioners from the different categories agree that theoretical knowledge and operational tools, and practical abilities should always be present in future architects' education. The experts believe that the architectural field theoretical topics and operative tools should interact in academic programs. All the experts consider theoretical, historical, and technological basic teachings as a shared cultural base, which results especially relevant in the first few years of learning. From the master study course, the education should focus on training professional figures aware of their actions and reliability in the building practice. The universities networks and collaborations with public institutions (such as Municipalities, Provinces and Superintendencies) are important tools to implement higher education students' involvement in complex design exercises.

The survey reports (Figure 04) that experts and practitioners prefer a balanced combination, in terms of academic educational activities, on Heritage Awareness and Sustainability of the Built Environment, among theory, tools and practical applications: 40-60 % of Lectures, Seminars, Study and analysis of literature, Site visits and study trips; 40-60% of Laboratory work, Field work, Practical tutorials, Internship, Applied Art Project, Interactive tutorials on software / ICT skills, and Design Project; and 20-40% of Research Thesis, Exams, Public presentation of work.

Q4.3b appropriate proportion of activities in academic education

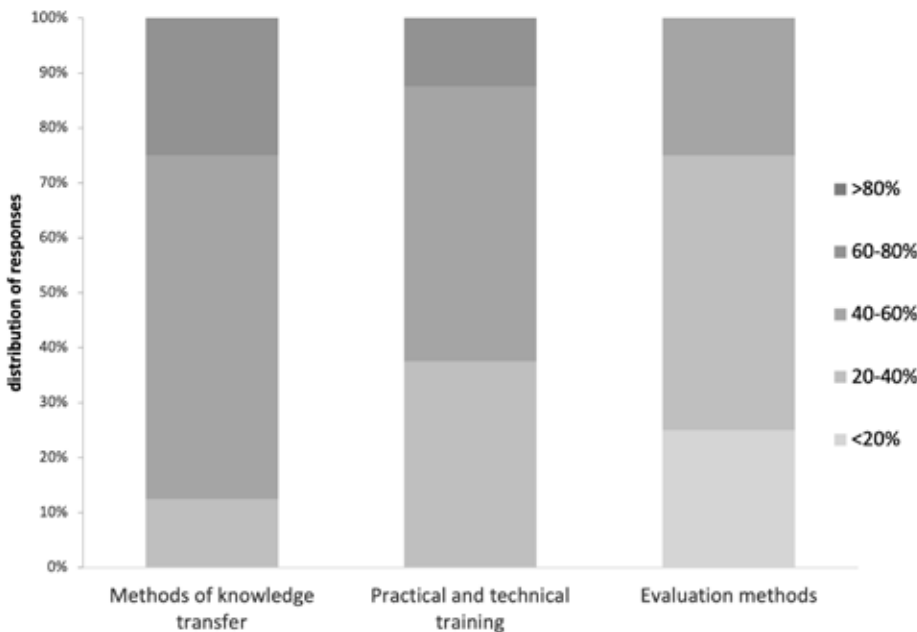


Fig 4. Mapping the proportion of activities in academic education.

## THE SIGNIFICANCE OF KEY CONCEPTS IN EDUCATIONAL PROGRAMS



The survey reports (Figure 05) that experts and practitioners consider *Conservation* and *Cultural Enhancement* as the most relevant key concept in Academical Education (more than 50% with 5). The key concepts related to *Restoration*, *Whole-lifecycle design*, *Regeneration*, and generally about *Reuse* were evaluated with 4 or 5. It results that in educational programs the key concepts related to Cultural Heritage and Sustainability should be integrated.



PARTICIPATORY DESIGN, IN MY OPINION, SHOULD BE DEEPLY INTEGRATED INTO UNIVERSITY EDUCATIONAL PROGRAMS. THE PUBLIC-PRIVATE COLLABORATION AND THE DIALOGUE BETWEEN UNIVERSITIES AND THE THIRD SECTOR ARE CENTRAL THEMES FOR A FUTURE ACADEMIC PERSPECTIVE. THE COOPERATION AND CONTAMINATION BETWEEN SUBJECTS OF DIFFERENT FIELDS WILL PLAY A CENTRAL ROLE IN SUSTAINABILITY AND CULTURAL HERITAGE AWARENESS, AS WELL AS IN DESIGN PRACTICE.



Elena Jachia  
Director of the Environment Area  
– Cariplo Foundation

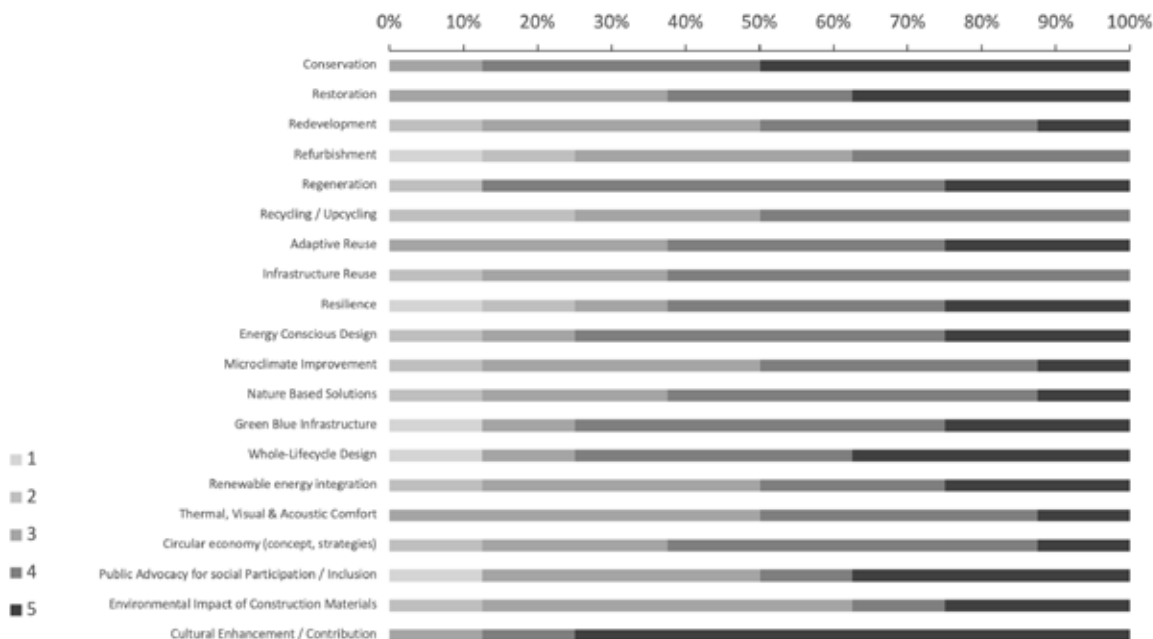


Fig 5. Mapping the significance of Key Concepts of Sustainability and Heritage in academic education.



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**PRACTITIONERS, WHO WORK WITH CULTURAL HERITAGE, NEED TO DEVELOP INDEPENDENT CRITICAL THINKING. PRACTICE, OPERATIVE TOOLS AND WELL-STRUCTURED ACADEMIC KNOWLEDGE HELP TO FACE WORKING ON BUILDING SITES.**

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**Arch. Giovanna Battista**  
 Architect - Superintendency for Architectural Heritage and Landscape in Verona, Rovigo e Vicenza



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**REUSE SHOULD HAVE A WIDER MEANING INCLUDING RESILIENCE AND RESTORATION CONCEPTS. THE CONTEMPORARY PROBLEM OF CITIES WITH SITES NO LONGER SUITABLE FOR THE COMMUNITIES COULD BE SOLVED BY REUSE. THIS APPROACH BECOMES AN OPPORTUNITY TO GIVE BUILDINGS, PLACES AND LANDSCAPES A NEW MEANING, FITTING COMMUNITIES' NEEDS.**

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**Arch. Raffaella Gianello**  
 Architect in Charge of the technical office - Municipality of Verona

## KEY FACTORS FOR THE IMPROVEMENT OF ARCHITECTURAL EDUCATION IN TERMS OF SUSTAINABILITY AND CULTURAL HERITAGE AWARENESS AND TRAINING



To improve architectural education in terms of Sustainability and Cultural Heritage awareness and training, experts and practitioners suggest different solutions focusing on a synergic perspective of Cultural Heritage and Sustainability. Experimental educational programs should aim to create a more contemporary interdisciplinary approach to improve and facilitate understanding the complex link between communities, territories, resources, and Cultural Heritage. The Interdisciplinary workshops and courses help the students get closer to the professional working situation and enhance the acknowledgement of society's values and local Cultural Heritage.

Architect Elisa Brusegan, Raffaella Gianello and Mario Gemin highlight that the academic environment is a promoter of opportunities for discussions. Students can discuss with local and international experts and practitioners from architecture and other disciplines during academic activities. This opportunity allows students to deal with different methods and develop creative skills through active forms of learning. Among the activities that Universities promote, the experts focus on formative post-graduated experiences, perhaps abroad (such as summer schools), to enlarge and implement their critical ability. In the same way, Architect Giovanna Battista and Marco Chiuso underline how graduated students who work in Sustainability and Cultural Heritage could benefit from attending Specialisation Schools after obtaining their degree to implement their awareness about the role of Cultural Heritage in Sustainable development.





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**THE RELATIONSHIP BETWEEN ACADEMIC INSTITUTIONS, PROFESSIONAL PRACTICES AND COMMUNITIES IS BUILT THROUGH PARTICIPANTS' COOPERATION AND INVOLVEMENT. LABORATORY ACTIVITIES, COLLECTIVE OBSERVATION SESSIONS AND COMMUNICATION OF RESEARCH RESULTS ARE FUNDAMENTAL TO CREATE CONNECTIONS BETWEEN UNIVERSITIES AND COMMUNITIES.**

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**Professor Chiara Ocelli  
Councillor of National University  
Council and professor at the  
Politecnico di Torino**

# DISCUSSION / CONCLUSIONS

*The experts share common ideas about some crucial issues, such as the necessity of a multidisciplinary approach in educational programs, the need for a strategical synthesis of Social, Cultural and Environmental themes regarding Sustainability and Cultural Heritage, a better Social Inclusion and Environmental Preservation, and the integration of Third Stream activities in academic courses and programs.*

*According to the experts, Sustainability and Cultural Heritage are complex topics. The practitioners that work with Cultural Heritage ask for a clear educational path to overcome the complexity in architectural design in dealing with Sustainability, Environmental and Cultural Values Preservation.*

*However, there is no clear and univocal definition regarding Sustainability. The meaning of this central issue requires clarification to build common ground and approach different design scales. The interviews enhance the main challenge to consider Cultural Heritage and Sustainability as part of social development.*

*This central topic requires exploring Cultural Heritage's role in sustainable development and integrating cultural values and community concerns with development processes.*

*To face this process, higher educational and post-graduate training courses and programs in the Cultural*

