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PhD School - Politecnico di Milano

Regulations of the PhD Programme in:

Built Heritage Conservation

Cycle XLII

1. General Information

PhD School - Politecnico di Milano

PhD Programme: **Built Heritage Conservation**

Course start: September 2026

Location of the PhD Programme: Milano Leonardo

Promoter Department: **Department of Architecture and Urban Studies**

(DAStU) Scientific Disciplinary Sectors:

CEAR-11/B Architectural Restoration
CEAR-11/A History of Architecture
CEAR-06/A Mechanics of Solids and Structures
CEAR-10/A Representation of Architecture
CEAR-12/B Urban and Landscape planning
CEAR-03/C Real Estate Appraisal and Project Evaluation
CHEM-01/B Chemistry for Environment and Cultural Heritage
GEOS-01/D Mining resources, mineralogic and petrographic applications for the environment and for cultural heritage

ERC Sectors
SH5_8 Cultural studies, cultural identities and memories, cultural heritage; SH6_1 Historiography, theory and methods in history; SH6_12 Historiography, theory and methods of history; PE8_3 Civil engineering; PE4_17 Characterization methods of materials; PE4_18 Environment Chemistry; SH6_3 SH2_9 Urban, regional and rural studies; SH2_10 Land use and regional planning; SH5_12 Computational modelling and digitisation in the cultural sphere; SH6_1 Archaeology, archaeometry, landscape archaeology; PE10_5 Geology, tectonics, volcanology; PE10_3 Climatology and climate change.

PhD School Website: Home - Dottorati di Ricerca (polimi.it)
PhD Programme Website: Built heritage conservation - Dottorati di Ricerca (polimi.it) Research – Dottorato-Conservazione – DAStU (polimi.it)
Linkedin *Built Heritage Conservation PhD Programme*

2. General presentation

The Doctorate Course in “Preservation of the Architectural Heritage”, from Academic year 2024-2025 “Built Heritage Conservation”, was first held at Milan-based Politecnico back in 1983. The PhD program focuses its attention to some currently crucial themes for the preservation, conservation, management and valorization of Built Heritage, having at the center the fundamental topics of heritage knowledge, preservation, design, and intervention, the PhD

program also takes care of the most important and urgent problems affecting the Built Heritage and Cultural Landscapes: the fragility of 20th century architecture; the abandonment of historic marginal areas; the climate change and its effects on the built environment; the improper pressure of mass tourism on our historic settlements and sites of cultural interest, the needs for a wider social involvement in the field also through appropriate ICT mediums, the management and the use of architectural heritage. The conservation of architectural heritage is, in fact, a strategic field as well as one of the main important resources for worldwide economy and for a sustainable future in different areas of the world. The team of professors, promoting and participating in the debate about these matters on a national and international scale, will thus deal with a broad range of issues requiring strong and real multi-disciplinary approach and all the many competences present in the PhD Board but also others outside it, for specific topics.
On the strength of a solid, long-standing research tradition, the themes addressed, and the methodologies adopted are meant to update contents and tools, the approach to the contemporary themes of cultural heritage protection and enhancement. Therefore, the development of innovative research processes will be encouraged, such as the investigation of the *territorial fragilities*, in abandoned settlements, in archaeological sites, in towns and cities damaged by earthquakes or in conflict areas. The Course reflects one of the main research lines carried out within the Department of Architecture and Urban Studies, regarded as excellent in research assessment by Italian Ministry of University and Research (MUR) for the quality of its research programs. DAStU is one of Italy's most important research structures for town and country planning, architecture and preservation, embedded in a well-established international network of centres of excellence, cooperating with institutional and social actors at the local, national and international level. Thanks to its multidisciplinary approach, the Department offers expertise and on-going projects in a plurality of areas and organizations, including European, national, regional and local authorities, social and economic based groups, and research institutions.

The PhD programme is meant as the place where theorization, methodology, investigation into the most significant chapters of the protection of historic architectural heritage and historic landscapes are connected to complex, challenging operating research themes, on-site and lab experimentation of analytical and diagnostic stages.

25 credits are acquired through the attendance of courses and the passing of the relative exams, concentrated in the first year of PhD programme.
In particular:
- 15 credits are offered and organized by the PhD programme in Built Heritage Conservation;
- 10 credits by the PhD School (soft and transferable skills courses).

The doctoral students in each cycle will also be required to attend specific seminars organized by the Phd Programme or suggested by Phd Board.
The activities undertaken, in particular during the second and third year, also include attendance of workshops, seminars, national and international conferences related to individual research, with great attention to conferences wherein PhD candidates present the results, even partial, of their research theses.

To the aim of their thesis research, PhD candidates can rely on facilities and laboratories, both inside and outside the University. The breadth and width of those provides them with a crucial support to the purpose of acquiring "competence for highly qualified research activities" in the domain of architectural heritage protection, such as advanced methods of investigation, knowledge management and preservation processes.

The PhD course is run by a Coordinator and a Faculty Board. The coordinator chairs the Faculty Board, coordinates the preparation of the annual Educational Program and organizes the general educational activities of the PhD course (see Attachment A1).
The Faculty Board is responsible for the educational program and for teaching and administrative activities related to the PhD course (see Attachment A2).
In addition to the professors of the Politecnico di Milano, the Faculty Board includes representatives from other well-known universities and Research Institutes (Università di Genova; Istituto di Scienze del Patrimonio Culturale; ISPC-CNR, Milano, Firenze; ISAC-CNR Bologna); they actively collaborate in the teaching and research activities.

3. Objectives

Aim of PhD course is providing the PhD candidates with a unique training experience in the Italian panorama, so far unparalleled also in domains other than the Built Heritage Conservation. The program of study leading to the doctoral degree is organized in such a way that the students can get ready to contribute to enhance knowledge in the field of Preservation of the Built Heritage and Cultural Landscapes; to enable to engage in advanced study and research; to integrate their professional education and experience with the larger problems of the research around the field.
The tutorial activities will be contributed by professors from prestigious schools of architecture and engineering as well as cultural heritage experts from foremost Italian Institutes. This aspect increases the technical characteristics and makes PhD immediately competitive at the European level.
The Faculty Board organization allows to investigate and share extremely relevant topics that describe the broad domain of preservation, a strategic field and, at the same time, one of the chief resources for the future and economy of a Country.
The multidisciplinary skills of the Faculty Board coverage a series of themes, which PhD students might take up in their thesis work:

a. New frontiers for the conservation of the architectural heritage

- 20th century architecture: values, issues and potentials;
- historic centres, fragility and potentiality; Urban plans and Historic cities;
- inner areas: conservation and re-use of Architectural Heritage; strategic approaches for the preservation; social involvement and Communities engagement in the protection and management of their Heritage; Activating latent territorial resources;
- impact of mass tourism on architectural heritage and cultural landscapes; cultural and sustainable tourism policies and practices;
- architectural Heritage at risk in seismic or in conflict areas;
- impacts of climate change on architectural heritage and cultural landscapes;

- ICT for Cultural Heritage; Open Data and innovative mapping tools for Cultural Heritage; Cultural Landscape Digital Education, Communication and Participation;
- architectural Heritage and Cultural Landscapes in Countries in transition.

b. Studies on built heritage

- construction techniques and materials: from the 15th to the 20th century;
- architecture and methods of construction: languages, technologies, products and sources;
- preservation, conservation and re-use of pre-20th century architecture. The question of re-use as possible cause of conflict with the issues of conservation;
- 20thcentury building techniques and methods of restoration;
- conservation management plan for 20th-century architecture;
- inventories of cultural heritage, their history and methodologies;
- historical systems of heating, lighting, water supply and drainage/waste evacuation in individual buildings and on an urban scale; Energy efficiency in historic buildings;
- wooden and masonry structures (carpentry, floors and ceilings, stone or brick vaults);
- traditional construction techniques: conservation problems and approach;
- materials and finishing of historic buildings: characteristics, production techniques and use as identified in technical literature and by material analysis;
- technical literature on construction: texts and their transmission, treatises, early technical and scientific journals, architectural manuals and journals;
- building archaeology: practical issues in archaeological research; buildings materials archaeology: history of their use, continuity and discontinuity in the use of traditional building materials; archaeology of modernism.

c. Diagnostics of materials and Structural Issues

- innovative materials and methods for the conservation of architectural surfaces;
- protocols for monitoring the state of preservation of building materials;
- innovative methods for the dynamic monitoring of resisting structures (under the effect of environmental noise or specific stimuli);
- critical evaluation of empirical construction technologies developed in the pre-scientific age to meet special needs (in particular, resistance to earthquakes);
- definition of evaluation process and knowledge of the increases “residual capacity” in existing buildings, ensuring the achievement of the preservation objectives.

d. Cultural Heritage and Economic Evaluation

- the economic perspective on Cultural Heritage;
- the notion of Total Economic Value;
- stated preferences and Revealed preferences methods
- how to support decisions about preservation, exploitation and re-use of Cultural Heritage.

One of the distinctive skills developed during the PhD experience is the ability to transfer

knowledge effectively, adapting it to different contexts, audiences, and communication occasions. This skill enables PhD graduates to work effectively in teams and disseminate their research results both within their specific community and to broader, more diverse audiences. The PhD program aims to help candidates communicate technical information, both orally and in writing, tailored to academic or non-academic recipients. This goal is supported by courses offered by the PhD School, including Technical Communication classes. Additionally, candidates participate in activities promoting experiential learning ('learning by doing'), the typical learning method of the PhD journey.

e. Professional opportunities and job market

Graduates of the PhD programme have often found employment in public sector and conservation institutions at progressively higher levels, as well as in professional practices and in the business world, in specific specialized fields. PhD candidates from abroad find job in their native countries at university or in Cultural Heritage Institutions, as well as numerous former Italian students.

As regards Italy, the relationship with Italian Ministero della Cultura (MIC) has been definitely fruitful, especially when we consider that many among the best PhDs in Preservation of Architectural Heritage have been hired as officers and executives to the above ministry. Recently (February 2018) twelve PhD in Preservation of the Architectural Heritage (Preservation of Built Heritage) won the competition to become public officers in prestigious seats of the Ministry of Cultural Heritage; others work in prestigious international organizations, still others teach and research in the Universities of their Countries (China, Vietnam, for example).

f. Enrolment

5.1 Admission requirements

Italian and International citizens can apply. They are requested to have graduated in accordance with the pre-existing laws D.M. 3.11.1999 n. 509, or to have a Master of Science degree in accordance with

D.M. 3.11.1999 n. 509, or a Master of Science in accordance with D.M. 22.10.2004 n. 270, or similar academic title obtained abroad. These titles must be equivalent for duration and content to the Italian one, with an overall duration of university studies of at least five years. The certified knowledge of the English language is a requirement for admission. Please refer to the PhD School website for details. The admission to the programmes will be established according to the evaluation of the candidates curricula, motivation letters, and an illustrative report about the development of a possible PhD research, which candidates will send contextually with their application to the admission announcement.

5.2 Admission deadlines and number of vacancies

The number of positions is indicated in the Call for admission to the 42th PhD cycle Programmes: http://www.polimi.it/phd. Scholarships both on general and on specific themes are available, in accordance with what is specified in the calls for admission.

g. Contents

6.1 Requirements for the PhD title achievement

The achievement of the PhD title in *Built Heritage Conservation* requires a study and research activity of at least three years equivalent of full-time study, research, and development of PhD thesis. PhD candidates in Built Heritage Conservation must earn a minimum of 25 course credits (see paragraph6 .3 below), and to continuously conduct studies and research.

At the beginning of the course, the Faculty Board assigns a supervisor, and, in some cases, a tutor to each PhD candidate to supervise and assist him/her in the overall training programme. The tutor shall be a professor belonging to the Faculty Board. The tutor assists the candidates in the choice of courses to be included in the study plan, which is submitted for approval to the Coordinator of the PhD Programme (see also section 6.4 below).

The Faculty Board may assign extra course credits to one or more candidates, in case they need to complete their preparation in specific topics, relevant for their research projects. Similarly, it may require the PhD student to modify topics and contents in relation to the research project presented in the phase of admission to the PhD programme.

Candidates will be asked to demonstrate knowledge of the Italian language, equal to at least A1 level of the Common European Framework of Reference for the knowledge of languages (suggested A2 level). This requirement will be needed in order to register for the final exam.

Italian native speakers and all those who can demonstrate knowledge of the Italian language to the required level will be exempt.

Each candidate must experiment three modes of technical-scientific communication:

1. Oral presentation to experts in the field and topic, aimed at developing the ability to communicate advanced content within a limited timeframe, highlighting key aspects of the research/project and justifying methodological choices, to an audience with high evaluation skills. This experience, aimed at sharing projects among colleagues, is achieved by participating in at least one conference or workshop where research results are presented.
2. Oral presentation to stakeholders with expertise in the field but not in the specific topic, transferring contents with appropriate details in unlimited timeframes. This skill, aimed at the ability to transfer research/project content to non-expert collaborators, is gained through specific training experiences with specific goals and typical timelines of academic and corporate settings.
3. Written communication for a community of experts. This skill is aimed at the ability to organize the document content, shorter than a book or thesis but still broad in scope, with an appropriate level of technical-scientific detail. This mode, typical of internal reports or technical notes, is experienced by creating written documents addressed to a relevant scientific community such as scientific or technical articles.

Each candidate is required to participate as a speaker in at least one international conference or workshop, complete at least one training activity, and publish at least two scientific or technical contribution aimed at an expert community. Any exceptions must be justified and authorized by

the Faculty Board.

6.2 Research development

The main aim of all Politecnico di Milano PhD programmes is the development in the candidates of a research-oriented mind-set, with expertise and skills in a specific research topic. To this end, candidates develop problem-solving capabilities in complex contexts, including the capacity of performing deep problem analysis, identifying original solutions, and evaluating their applicability in practical contexts. These skills provide the PhD candidates with major opportunities of development in their research both in the academic field, and in public and private organizations.

PhD candidates are requested to develop an original research contribution. The PhD thesis must thus contribute to increase the knowledge in the candidate's research field. Besides, it has to be coherent with the research topics developed in the Department where the PhD Programme is carried out. The original research results are collected in the PhD thesis, where the candidate's contribution is put in perspective with respect to the research state of the art in the specific research field.

The PhD research is developed, during the three years of the program, under the guidance of a supervisor, who supports the candidate in the setting-out and in the everyday activities related to the thesis development. The supervisor is not necessarily a member of the Faculty Board and may also belong to a different institution. The supervisor can be supported by one or more co-supervisors. Further activities intended to develop the candidate's personal skills and research expertise are encouraged during the PhD path. Candidates must acquire the capability to present and discuss their work in their research community. Consequently, both the participation to international conferences and the publication of the research results in peer-reviewed journals are encouraged. The PhD programme favors the candidates' research interactions with other groups in their research field, preferably abroad. Research visits of at least three months are strongly encouraged, as through them the candidates may acquire further skills to develop their research work and thesis. The duration of the programme is normally three years.

6.3 Objectives and general framework of the teaching activities

The PhD Programmes and the PhD School activate teaching forms of different kind and credit value, including courses, seminars, project workshops, laboratories. Teaching activities both cover the basic research issues (problems, theories, methods), which represent the founding element of the PhD programme and clearly identify its cultural position and deepening in a specialist way some research issues connected with the problems developed in the theses.

Lessons are usually held in English, except when indicated otherwise. The PhD programme includes at least one complete path delivered in English language.

Structured teaching activities allow to earn ECTS credits. Other activities typically specialized and for which it is difficult to evaluate the learning and its quantification, fall within the scientific activities of which the Faculty Board takes into account in the overall evaluation, but they do not allow to earn ECTS.

The PhD School of Politecnico di Milano proposes a set of courses aiming to train the PhD candidates in soft and transferable skills. The skills and abilities provided by these courses are expected to help candidates across different areas of their careers in order to respond to the rapidly evolving needs of the global economy and society at large.
At least 10 of the 25 course credits that each candidate is required to earn shall be obtained through soft and transferable skills courses organized by the PhD School.

Characterizing Courses

The courses activated by the CPC programme, for the 42° cycle, in the first year are the following:

1 – *THEMES AND METHODS of research for Cultural Heritage (5 credits)*

Through ex-cathedra lessons, seminars, and exercises, the course aims to initiate the students to know the methods and themes of the research for cultural heritage and their conservation.
The PhD students will be asked to work on topics related to Phd thesis to experiment concretely with what they learned in class.

2– HERITAGE AT RISK. Managing the effects of seismic actions and traumatic events on the built heritage by digital tools

The course provides a look onto themes, processes, modifications, and recovery initiatives which, under the effect of multiple risk factors, involve the architectural Heritage at different scales and different declinations, and their management by digital tools.
Through seminars and lectures, implications, approaches, and intervention methods concerning appropriately identified specific issues are discussed.

3- *HERITAGE IN CLIMATE CHANGE. Damage and environmental impacts (5 credits)*

The course deals with climate change, its risks and its impact on the architectural and landscape heritage. The course, after introducing the topic of decay and the interaction in between building and the environment, with the aim of providing students with the tools to address a cogent and complex field, will be developed through seminars that illustrate case studies at the architectural and territorial scale.

Each course earns the student five credits. Each learning activity is subject to grading through oral examination and/or submitting written papers to achieve the provided credits. More details will be available on specific program of courses. The courses do not design an independent field in themselves but will always interact with all the other contributions provided to the students regarding some common issues, topics, and case studies. The PhD students will be required to carry out common research activities at the beginning of the first year.

The tables below summarize the candidate's path (as regards coursework activities). At the same time, the programme foresees that the candidates are devoted to research activity in a continuous way for three year starting from the first, following the lead of their supervisors and of the Faculty Board.

First Year

Courses	*Reference to following tables*	*Number of credits*	*Note*
PhD School Courses	3 courses	each course 5 credits	
Courses characterizing the PhD	2 courses	each course 5 credits	

Second year

In the second and third year, the candidate should be devoted entirely to the research and to the development of the PhD thesis.
A period of study abroad in qualified Research Institutions, chosen in relation with the particular research topic, is strongly recommended and participation to the international workshop organized by Phd Programme

Third year

In the third year the candidate should be devoted entirely to the research and to the development of the PhD thesis. In the third year the PhD student must have partecipated at least in national and international conferences as a speaker or have presented a paper in relation to the PhD research to international journal. Participation in seminars and conferences, as well as the publication of paper, must be agreed with the supervisor.

Periodical milestones (every six months approximately), starting from the first year, will verify PhD students' progress in individual research.

The milestones involve submitting written materials (reports), to be delivered in advance according to the schedule communicated to the PhD candidates with sufficient notice, and a PowerPoint presentation on the day of the milestone. The material – both the written report and the PPT presentation – must be consistent and correspond to the state-of-the-art of the research, even though the presentation will represent a summary of the report.

The 1st milestone (first year) must illustrate and argue the chosen research topic and its originality. It should include a first recognition of the research field with direct reference to a first outline of its state-of-the-art, meaning an initial review and brief account of the existing and available literature on the given topic. It should also be exemplified through an annotated bibliography. Furthermore, the PhD candidate should indicate his/her future research path.

The 2nd milestone (first year) must be in continuity with the first, bringing further developments considering the observations received from the two internal reviewers and by any other member of the PhD Board. The structure of the report and the presentation should clearly state the differences from the previous milestone, using different text colours, fonts, or font sizes in such a manner as to indicate the variations and advancements. Additionally, an incipient research structure should be presented and argued.
The 3rd milestone (second year); the report will no longer be an independent written

material, but it should present (even though schematic and provisional) the thesis's table of contents, underlining the draft's progress. The PhD thesis draft should be preceded by a brief introduction of a maximum of two pages, serving as a guide to reading the document and summarizing the research program of the PhD candidate given the successive milestones.

For the subsequent milestones (4th, 5th, 6th), the PhD candidate will have to present the thesis's state of the art and advancement, always preceded by the introduction mentioned above.

PhD Course List

The PhD Programme in *Preservation of Built Heritage* organizes the **Characterizing Courses** listed in table A. For the admission to the final exam the acquisition of **at least credits** in this list is **mandatory**.

The PhD School organizes general and Interdoctoral courses every year. The acquisition of **at least 10 credits** is **mandatory** among the courses of B type. The list of PhD courses organized by the PhD School is available at the website
https://www.dottorato.polimi.it/en/phd-school/phd-level- courses

Other PhD courses

A maximum of 5 mandatory credits can be obtained by choosing among courses provided by other PhD programmes at Politecnico di Milano and/or external Institutions (in this case the previous approval of the supervisor and the coordinator is mandatory).

PREPARATORY COURSES

If the supervisor and the tutor find it useful or necessary that the candidate attends preparatory courses, the Faculty Board of the PhD programme may assign some extra-credits to be acquired to complete the training path. The credits acquired in this way will be considered as additional, in relation to the mandatory credits to be acquired with the PhD courses.

A specific study path will be organized for each PhD candidate that may also attend courses offered by the Scuola di Specializzazione in Beni Architettonici e del Paesaggio, SSBAP [Graduate School in Architectural and Landscape Heritage] in Milan and in Genoa, and, in relation to the various topics of their thesis or courses, from Master degree programs.

SPECIALISTIC COURSES, LONG-TRAINING SEMINARS

The attendance of Specialist Courses, Workshops, Schools and Seminars cycles is strongly encouraged, in particular those organized by PhD Programme. If these seminars, workshops are certified and evaluated, may permit to acquire credits according the modalities established by the Faculty Board and previous approval of the study plan submitted by the candidate. These courses and workshops can be inserted in the study plan, even if they are not evaluated (and therefore not qualified as credits), as optional “additional teaching”. The scheduled course planning for the academic year 2026-2027 follows. Other courses may be activated during the year. In this case, the candidates will be promptly informed and will be allowed to insert these new courses in their study plan.

Table A: PHD COURSES CHARACTERISING THE PHD PROGRAMME

SSD	Name of the Course	Professor	A.A./Semester	Language	Credits
CEAR-12/B CEAR-11/A CEAR-11/B	THEMES AND METHODS of research for cultural Heritage	Bertrando Bonfantini Daniele Pisani Francesca Albani	1	English	5
CEAR-06/A CEAR-10/A CEAR-06/A	HERITAGE AT RISK. Managing the effects of seismic actions and traumatic events on the built heritage by digital tools	Claudio Chesi Daniele Villa Massimiliano Bocciarelli	1	English	5
CEAR-11/B CHEM-01/B GEOS-01/D	HERITAGE IN CLIMATE CHANGE. Damage and environmental impacts	Davide Del Curto Antonio Sansonetti Alessandra Bonazza	1	English	5

Table B

See https://www.dottorato.polimi.it/en/phd-school/phd-level-courses

ADVANCED INTERACTION SKILLS FOR ACADEMIC PROFESSIONALS
COMMUNICATION STRATEGIES THAT SCORE IN WORLDWIDE ACADEMIA
ENGLISH FOR ACADEMIC COMMUNICATION
ETHICAL ASPECTS OF RESEARCH ON DUAL-USE TECHNOLOGIES
INNOVATIVE TEACHING SKILLS
LA COMUNICAZIONE NELLA SCIENZA
PRACTICING RESEARCH COLLABORATION
RESEARCH SKILLS
SCIENTIFIC / ACADEMIC ENGLISH: WRITING AND PRESENTING WITH AND WITHOUT THE SUPPORT OF LLMS
STRENGTHENING CRITICAL SPATIAL THINKING
PROFESSIONAL COMMUNICATION
PROJECT MANAGEMENT BASICS
CREATIVE DESIGN THINKING
ETHICS IN RESEARCH
ETHICS OF ARTIFICIAL INTELLIGENCE
POWER OF IMAGES AND VISUAL COMMUNICATION FOR RESEARCH DISSEMINATION
SCIENCE DIPLOMACY FOR RESEARCHERS. FILLING THE GAP BETWEEN SCIENCE AND POLICY WITHIN THE GLOBAL CHALLENGES
SUSTAINABILITY METRICS, LIFE CYCLE ASSESSMENT AND ENVIRONMENTAL FOOTPRINT
HOW TO SUPPORT COMPLEX DECISIONS: APPROACHES AND TOOLS
DATA VISUALIZATION FOR PHD
SCIENCE, TECHNOLOGY, SOCIETY AND WIKIPEDIA
SULLA RESPONSABILITÀ ETICA DELLA TECNICA
TEACHING METHODOLOGIES, STRATEGIES AND STYLES
CREATIVITY, SCIENCE AND INNOVATION: THE MULTIMAGINEERING COURSE
INNOVATION SKILLS

a. Presentation of the study plan

PhD candidates must submit a study plan, which may be revised periodically in order to adequate them to possible changes in the course list, or to needs motivated by the development of their PhD career. The study plans must be approved by the PhD programme Coordinator, according to the modalities established by the Faculty Board of the PhD Programme itself.

b. Yearly evaluations

Candidates present their work to the Faculty Board at least once a year. In particular, the candidates must pass an annual evaluation in order to be admitted to the following PhD year. In addition to the year-end review, PhD candidates have to submit the thesis to the Faculty Board 2 times a year.

The third year evaluation establishes the candidate's admission to the final PhD defense.

As a result of each annual evaluation, the candidates who pass annual evaluation receive an evaluation (A/B/C/D) and may proceed with the enrolment at the following year. Candidates who do not pass the year-end review, are qualified either as “Repeating candidate” (Er) or “not able to carry on with the PhD (Ei)”. In the former case (Er), the candidates are allowed to repeat the PhD year at most once. The PhD scholarships – if any – are suspended during the repetition year. In the latter case (Ei) the candidates are excluded from the PhD programme and lose their scholarships – if any.

In case the Faculty Board holds appropriate to assign directly an exclusion evaluation (Ei) without a previous repetition year, the request must be properly motivated, and validated by the PhD School.

After the final year, candidates who have achieved sufficient results but need more time to conclude their research work and write their theses may obtain the admission to a further year.

c. PhD thesis preparation

The main objective of the PhD career is the development of an original research contribute. The PhD thesis is expected to contribute to the advance of the knowledge in the candidate's research field.

The PhD study and research work is carried out, full time, during the three years of the PhD course. Stages or study periods in (Italian or International) companies or external Institutions may complete the candidate's preparation.

The resulting theses needs to be coherent with the research issues developed in the Department where the PhD programme is developed.

The candidate must present an original thesis, discuss its contribution to the state of the art in the research field in the research community.

The PhD research is developed following the lead of a supervisor, who supports the candidate in the setting out and in the everyday activities regarding the thesis development.

At the conclusion of the PhD studies, the Faculty Board evaluates the candidates.

Candidates who receive a positive evaluation submit their theses to two external reviewers for refereeing. If the evaluation provided by the reviewers is positive (after the revisions required by the external reviewers), the candidates defend their thesis in a final exam, in front of a Committee composed of three members (at least two of which must be external

experts).

7. Laboratories, PhD Secretary Services

The Department of Architecture and Urban Studies, provides the PhD students of the Architectural Heritage Preservation Programme with classrooms at DAStU (PC workstations, desks and wi-fi connection).

Libraries and archives:
The PhD candidates can reference publications from the Libraires and Archives Polimi (Historical Libreries, Historical Archives, Leonardo Campus Library, Candiani Campus Library, DASTU Historical Archive)
Scientific laboratories:
Diagnostics and Investigations on Building Materials Laboratory (DICA);
LADC Laboratory – Construction Analysis and Diagnostics Laboratory (DAStU);
TeCMArcH –Techniques for the Conservation and Management of Architectural Heritage (DAStU); Interdepartmental Laboratory 'Climate and Energy for Cultural Heritage' (CECH);
Interdepartmental Laboratory Characterization of materials for architecture (MatArch)

In relation to PhD thesis and topics with the agreement of the competent structures, PhD candidates will have access to the following laboratories and libraries:

Università degli Studi in Genoa
Libraries

- Library of the MARS Laboratory – Division of Archaeology of Architecture
- Library Service Centre "Nino Carboneri" of the Faculty of Architecture
- Library of the Institute of History of Material Culture
(ISCUM) Laboratory

ISPC- CNR
The candidates can also access to laboratories of ISPC_CNR Milano to develop research dealing with:
-characterization of constituent materials of Architectural Heritage and understanding of their degradation processes;
- development of new technologies and materials for the conservation of cultural heritage;
- development of innovative criteria for planning and carrying out conservation treatments.

Doctoral program – secretarial services:

Dott.ssa Marina Bonaventura
Department of Architecture and Urban
Studies Tel.: 0039 2 2399 5165
e-mail: marina.bonaventura@polimi.it

Marilena Mastalli
Department of Architecture and Urban
Studies Tel.: 0039 2 2399 5405
e-mail: marilena.mastalli@polimi.it

Doctoral program – administrative services:

Arch. Gloria Paoluzzi
Department of Architecture and Urban
Studies Tel.: 02-2399.5550
e-mail: gloria.paoluzzi@ polimi.it

Dott. Costanza Mangione
Department of Architecture and Urban
Studies Tel.: 02-2399.5410
e-mail: costanza.mangione@ polimi.it

8. Internationalisation and inter-sectoriality

Study and research activities in external laboratories are strongly recommended.
Politecnico di Milano supports joint PhD paths with International Institutions, as well as Joint and Double PhD programmes. Further information is available on the PhD School website and on the PhD programme website.

More specifically, the PhD programme in Built Heritage Conservation collaborates with:

- UNIVERSITAT DE VALÈNCIA – Double Doctorate
- UNIVERSIDAD DE CASTILLA-LA MANCHA - cotutelle agreement;
- UNIVERSITE' PARIS I - PANTHEON SORBONNE – stage, co-supervised theses;
- ETS DE ARQUITECTURA DE GRANADA, teaching activities, exchange;
- SCOTTISH CENTRE FOR CONSERVATION STUDIES, UNIVERSITY OF EDINBURGH, co-supervised theses
- XI'AN JIOTONG UNIVERSITY, exchange for teaching activities;
- ETHZ, Zurich, Switzerland, exchange for teaching activities.
- Qatar University – Double Doctorate
- RMIT University, Melbourne, Australia, Marie Curie fellowship
- Universidade Pontificia Catholica de Minas Gerais (PUC), co-supervised theses, exchange for teaching activities, joint workshop
- Universidade Federal de Minas Gerais (UFMG) co-supervised theses, exchange for teaching activities, joint workshop
- Universidade Federal de Ouro Preto (UFOP), exchange teaching activities, joint workshop,
- Beijing University of Civil Engeeniring (BUCEA) exchange for teaching activities, joint workshop

Other international agreements
CSC – Chinese Government (from 36th to 41th cycle)

MAECI - Ministero degli Affari Esteri (33th cycle)

Interaction with and exposure to non-academic sectors provides significant benefits to doctoral candidates as well as to research and innovation intensive employment sectors. Direct exposure to the challenges and opportunities in non-academic sectors of the economy and society at large is fostered by networking, connectivity, inter-sectoral mobility and wide access to the knowledge. In particular, the PhD programme in Built Heritage Conservation collaborates with the following Research Agencies: ISPC-CNR, I*stituto di Scienza del Patrimonio Culturale*; (co-supervised theses, Laboratories, teaching activities);
ISAC-CNR, *Istituto di Scienze dell'atmosfera e del clima* (co-supervised theses, Laboratories, teaching activities).

Attachment A1 – PhD Programme Coordinator

Francesca Lucia Maria Albani

CURRENT POSITION

Full Professor of Architectural Restoration in the Department of Architecture and Urban Studies, Politecnico di Milano

PERSONAL PROFILE

Since 2003 I have dealt with issues relating to construction and architectural, urban and cultural landscape restoration with reference to historical architecture and 20th century architecture with particular attention to materials and construction techniques, theories and history, study and design methods, as well as the problems of heritage protection and management.
These topics were developed in my PhD thesis, in my specialisation thesis then continued through research grants and collaborations in national and international researches.
2006-2008: UNIVERSITY RESEARCHER JUNIOR, Università della Svizzera italiana, Accademia architettura di Mendrisio; 2008-2010 UNIVERSITY RESEARCHER SENIOR, Università della Svizzera italiana, Accademia architettura di Mendrisio; 2012:-2015 UNIVERSITY RESEARCHER A Department of Architecture and Urban Studies, Politecnico di Milano; 2015: VISITING RESEARCHER, Università della Svizzera italiana, Accademia di Architettura di Mendrisio; 2015-2018 UNIVERSITY RESEARCHER B and 2018-2023 ASSOCIATE PROFESSOR in Architectural Restoration, Department of Architecture and Urban Studies, Politecnico di Milano

EDUCATION

1999: GRADUATED in Architecture at Politecnico di Milano supervisor prof. Andrea Bruno;

2006: PHD IN CONSERVATION of the Architectural Heritage supervisor prof. Alberto Grimoldi, in collaboration with Université de Genève prof. Franz Graf

2009: POST-GRADUATED in “Architectural and Landscape Heritage” (School of Specialisation) at the Politecnico di Milano supervisor prof. Paolo Maria Farina co-supervisor: arch. Daniela Lattanzi, Regional Directorate for the Cultural and Landscape Heritage of Lombardy

ACADEMIC RECORDS

<u>Scientific research projects</u>

Among Them:
2012-2017 Bellinzona Cultural Heritage Office, Canton Ticino, Diocese of Lugano, Parish of Castel San Pietro - Preliminary studies for restoration and conservation of the stuccoes and plasters of the Parish Church of Castel San Pietro, Canton Ticino, Switzerland. Conservation of restoration of 20th century” 2015-2017 Associazione Arte e Terra, Canton Ticino – “Borgo di Castel San Pietro In Canton Ticino” 2015-2019 Departement Architektur, Gestaltung Und Bauingenier Wesen, Zhaw, Winterthur/Architekturforum Zurich/Kogakuin University,

Tokyo/Fondazione Angelo Mangiarotti – “Angelo Mangiarotti. The Tectonics of Assembly “– with Franz Graf
2017-2018 Università della Svizzera Italiana, “The architecture of the second half of the 20th century. Thin Shells In Concrete. History and Conservation”
2018-2019 Municipality of Novara - “Studies and researches for the definition of the conservation, enhancement and use of the walls of the Visconti-Sforza Castle and the bastions of San Luca and San Giuseppe” with Matteo Gambaro (Department of Architecture, Built Environment And Construction Engineering), Politecnico di Milano
2018-2019 Autonomous Province of Bolzano, Cultural Heritage Office Dr. Waltraud Kofler Engl/SPARKASSE – “The architecture of fascismo in Bolzano. The case of Sparkasse headquarte” 2018-2019 Institute of Italian Culture, Tokyo/Angelo Mangiarotti Foundation – “Angelo Mangiarotti” with Franz Graf
2019 to today MUNICIPALITY OF NOVARA - methodological and technical approach to conservation work on the Ghirlanda of Novara castle. with Matteo Gambaro (ABC Department, Politecnico Di Milano)
2021-2024 Università della Svizzera Italiana/Studio Valle - "Gino valle. The profession as an artistic discipline". With Franz Graf
2020-2024 COMUNE DI TRENTO – UFFICIO URBANISTICA (det. 53/6 19 febbraio 2020) “Schedatura del Secondo Novecento a Trento”, Scientific Responsible with Francesca Odorizzi (Ordine degli Architetti di Trento) 2020 until now
2023-2025 COMUNE DI MONZA “Gli edifici storico testimoniali al di fuori del NAF. Indirizzi per la conservazione”
2023 to today STATO DEL CANTON TICINO “Conservazioen della volta del Gran Consiglio”
2024 to today COMUNE DI MONZA “Indirizzi per la conservazione dei Nuclei di Antica

Formazione” Teaching and tutoring

I taught at the Politecnico di Milano since 2008 (BSc and MSc) in the courses on “Fundamentals of preservation” and “Restoration”;
since 2021 Graduate School in Architectural and Landscape Heritage, DASTU, where she taught “Conservation of the built heritage of the 20th century”
SUPERVISOR OF BSC AND MSC DEGREE THESES
SUPERVISOR OF PHD THESES, PhD in Preservation of the Architectural Heritage, DASTU Polimi LECTURER at Università della Svizzera italiana, Accademia di architettura di Mendrisio, where she taught “Tools and methods of analysis of 20th century architecture”.

COMMITTEES, BOARDS AND OTHER ACADEMIC ROLES

2020-2025 MEMBER OF THE BOARD OF THE DEPARTMENT of Architecture and Urban Studies, Politecnico di Milano (delegate for teaching, publications and laboratories)
Since 2017 MEMBER OF THE ACADEMIC BOARD OF THE PHD in “Preservation of the Architectural Heritage”, Department of Architecture and Urban Studies, Politecnico di Milano.
Since 2021 MEMBER OF THE TEACHING BOARD OF THE GRADUATE SCHOOL in “Architectural and Landscape Heritage”, Politecnico di Milano, where she teaches the course “Preserving 20th-

Century Architecture".
2021-2025 MEMBER OF THE BOARD of AVA_MIUR MONITORING COMMITTEE of THE MASTER DEGREE COURSE in "Architectural Design", School of Architecture, Urban Planning and Construction Engineering, Politecnico di Milano

PRINCIPAL PUBLICATIONS

AUTHOR of more than 130 pubblications among them: monographs, curatorships, articles in journals, essays in volumes, papers in proceedings of conference on subjects relating to construction, architectural, urban and cultural landscape restoration with reference to traditional architecture and 20th-century architecture. Many of them are in English, French and Japanese and they have been reviewed in many journals, such as "Territorio", "Archi", "Il giornale del Ticino, quotidiano della Svizzera italiana", "Docomomo journal", "Casabella". Among the principales publications:

Books

2012 F. Albani, *Superfici di vetro negli anni Trenta. Storia e conservazione* Maggioli Editore, Santarcangelo di Romagna (RN)

2019 F. Albani, F. Graf, *Variazioni e modularità*, Interlinea, Novara

2023 F. Albani, C. Dusi, A. Cavallo, *Mushroom Field*, Interlinea, Novara

2026 F. Albani, G. D'Amia, P.P. Marceca*, Il fondo fotografico di Ambrogio Annoni al Politecnico di Milano*, Biblion Edizioni, Milano

Edited Books

2011 F. Graf, F. Albani (eds), *Glass in the 20th century architecture. Preservation and Restoration*, Mendrisio Academy Press, Mendrisio

2013 F. Albani, C. Di Biase (eds), *Architettura minore del XX secolo. Strategie di tutela e intervento*, Maggioli Editore, Santarcangelo di Romagna

2015 (1 edizione) F. Graf, F. Albani (eds), *Angelo Mangiarotti La tettonica dell'assemblaggio/ Angelo Mangiarotti. The Tectonics of Assembly,* Mendrisio: Mendrisio Academy Press Silvana editorial

2017 F. Albani (ed), *La chiesa di Castel San Pietro in Canton Ticino. Studi, Restauri, Conservazione*, Roma: Gangemi Editore International

2019 C. Di Biase F. Albani, *The Teaching of Architectural Conservation in Europe,* Santarcangelo di Romagna (RN): Maggioli Editore

2019 F. Graf, F. Albani (eds), アンジェロ・マンジャロッティ構築のリアリティ組み立て工法による生成/ Angelo Mangiarotti. The Tectonics of Assembly, Tokyo: Opa press

2020 F. Albani (eds), *Castel San Pietro. Paesaggi culturali in Canton Ticino,* Roma: Gangemi

2022 (4 edizione) F. Graf, F.Albani (eds), *Angelo Mangiarotti La tettonica dell'assemblaggio/ Angelo Mangiarotti. The Tectonics of Assembly,* Mendrisio: Mendrisio Academy Press Silvana editoriale

2022 F. Albani, M. Gambaro (eds), *Vercelli littoria. L'architettura nel Ventennio fascista,* Edizioni illustrate e d'arte, Interlinea

2024 F.Graf, F. Albani (eds), *Gino Valle. La professione come sperimentazione continua*, Mendrisio: Mendrisio Academy Press Silvana editoriale

2024 F. Albani, M. Gambaro (eds), *Monza littoria. L'architettura nel Ventennio fascista*, Edizioni illustrate e d'arte, Interlinea

2025 F- Albani, M. Gambaro (eds), Piacenza Littoria. L'architettura nel Ventennio Fascista, Edizioni illustrate e d'arte, Interlinea

Chapters in edited books and articles in referred journals

2009 F. Albani, *Diventa una realtà la casa dei Marchiondini, Vicende e riflessioni sulla costruzione della nuova sede*, in F. Graf, L. Tedeschi (eds), *L'Istituto Marchiondi Spagliardi di Vittoriano Viganò*, Mendrisio Academy Press Mendrisio

2009 F. Albani, *Le prime case prefabbricate nel QT8 a Milano: le ragioni della tutela,* in C. Di Biase (ed), *Il degrado del calcestruzzo nell'architettura del Novecento*, Maggioli editore Sant'Arcangelo di Romagna (RM), p. 203-227

2011 F. Albani, *Expérimentations en Italie de l'après-guerre : le quartier QT8 à Milan. Réalisation, événements, perspectives / Post-war experimentation in Italy: the QT8 housing estate in Milan. Construction, episodes, perspectives*, in F. Graf, Y. Delemontey (eds), *Architecture industrialisée et préfabriquée : connaisance et sauvegarde / Understanding and Conserving Industrilised and Prefabricated Architecture,* Presses Polytechniques et Universitares Romandes, Lausanne, p. 241-271

2013 F. Albani, *La prefabbricazione, strategie per la ricostruzione a Milano. Dalle sperimentazioni alle realizzazioni*, in F. Albani, C. Di Biase (eds), *Architettura minore del XX secolo. Strategie di tutela e intervento*, Maggioli Editore, Santarcangelo di Romagna (RN), p. 111- 137,

2015 F. Albani, *Icone dimenticate. La patina dell'architettura industrializzata Forgotten Icons. The Patina of Industrialized Architecture in* F. Graf, F. Albani (eds), *Angelo Mangiarotti La tettonica dell'assemblaggio/ Angelo Mangiarotti. The Tectonics of Assembly*. Mendrisio Academy Press Silvana editoriale, Mendrisio, p. 38-55

2015 F. Albani, *The Durability Of Restoration Of Exposed Concrete. Case Histories Compared, in* M. A. Chiorino, L. Coppola, C. Mazzotti, R. Realfonzo, P. Riva (eds), *Durability and Sustainability of Concrete Structures*. Farmington Hills, Michigan: American Concrete Institute, p. 31-39 ISBN: 978-1-942727-44-6, Bologna (Italy), 30/9 - 3/10

2016 F. Albani, F. Graf, *Conservare i prototipi della serialità. Le architetture di Angelo Mangiarotti*, in "MATERIALI E STRUTTURE", vol. V (2016), p. 9-28

2016 F. Albani, *La prefabbricazione in Italia nel secondo dopoguerra tra quartieri popolari ed industrial designers, in "*Le culture della tecnica", vol. 26, p. 53-68

2016 F. Albani, *Prefabricated industrial architecture in Italy. Preservation versus transformation, in Proceedings of the 14th International Docomomo Conference - Adaptive Reuse: The Modern Movement Towards the Future* Calouste Gulbenkian Foundation, Lisbona, p. 297-303

2017 F. Albani, *New lives for deconsecrated churches. Symbolic values and the identity of places, in* D. Fiorani, L. Kealy, S. Francesco Musso (eds), *Conservation/Adaptation. Keeping alive the spirit of the place. Adaptive re-use of heritage with symbolic values*. Hasselt, Belgium, EAAE, European Association for Architectural Education, p. 11-16

2018 F. Albani*, Architettura e materiali*, in "ARCHI" rivista svizzera di architettura, ingegneria e urbanistica , vol. 5, p. 13-15

2019 F. Albani, *Are we all pilgrims? The cultural heritage and sustainable tourism, in* D. Fiorani, G. Franco, L. Kealy, S. Francesco Musso, M. Calvo-Salve (eds), Conservation/Consumption. Preserving The Tangible And Intangible Values, European Association for Architectural Education, Hasselt, p. 31-38,

2019 F. Albani, F. Graf, フランツ・グラフ、フランチェスカ・アルバーニ組み立て方法 10 のバリエーション/ *Assembling to Build: Ten Variations on a Theme*. In F. Graf, F. Albani (eds), アンジェロ・マンジャロッティ構築のリアリティ組み立て工法による生成 */ Angelo Mangiarotti. The Tectonics of Assembly,* Opa press, Tokyo, p. 72-216

2020 F. Albani, M. Gambaro (2020). *Multiscalar Approaches to Re-Appropriating the Visconti-Sforza Castle In Novara Between Conservation and Re-Use*, F. Scalisi (ed), *From Mega To Nano*, Palermo University Press, Palermo, p. 102-123

2020 F. Albani, F. Graf, *Zanuso versus Mangiarotti. Due interpreti del dopoguerra milanese*, in L. Crespi,L. Tedeschi, A. Viati Navone (eds), *Marco Zanuso Architettura e design,* Roma, Officina Libraria, p. 149- 160

2021 F. Albani, *La fotografia di cantiere negli anni Sessanta e Settanta. Tra documentazione e promozione*, in "Rivista dell'istituto per la Storia Dell'arte Lombarda", vol. 33, p. 43 – 54

2021 F. Albani, *Passion, Enthusiasm and Hope. A Conversation with Aurelio Galfetti / Passione, entusiasmo e speranza. Una conversazione con Aurelio Galfetti*, in F. Graf (ed), Aurelio Galfetti. The Construction of Space / Costruire lo spazio, Academy Press, Mendrisio, p. 151-159

2021 F. Albani, *Social housing in Venice. The Giudecca housing estate by Gino Valle (1980-1986) and the challenges of change*, in A. TOSTOES, Y. YAMANA (eds), *Inheritable Resilience: Sharing Values of Global Modernities* - 16th International Docomomo Conference Tokyo Japan 2020+1 Proceedings. vol. 1, Tokyo: Docomomo International, 29 August - 2 September 2021, p. 398-403

2022 F. Albani, C. Dusi, A. Cavallo, *Cupole d'aria e cemento: ricercando l'innovazione*, in "Rivista dell'istituto Per La Storia dell'arte Lombarda", n. 35, p. 25-33

2022 F. Albani, M. Gambaro, *Oltre il recinto di fabbrica. Stratificazioni, significati, conservazione e*

riuso, Stati generali del Patrimonio Industriale 2022, Roma, p. 1-24

2023 F. Albani, *Seriality. A Challenge for the Future*, in F. Irace (ed), *Quando le strutture prendono forma/When structures take shape*, Electa, Milano, p. 53-72

2024 F. Albani, M. Gambaro, *Il Patrimonio Diffuso come occasione per la città di riscoprire se stessa. Il Caso delle Zone "Extra Moenia" di Monza / The Built Heritage as an Opportunity for the City to Rediscover Itself. The Case of Monzas Urban Expansion Areas,* in A. Cardaci, F. Picchio, A. Versaci (a cura di), *ReUSO 2024 Documentazione, restauro e rigenerazione sostenibile del patrimonio costruito,* Publica, 2024, pp. 749-759.

2024 F. Albani, *Le opere di Gino Valle. Tra futuro e oblio / The works of Gino Valle. Between a future and oblivion, in* F.Graf, F. Albani (eds), *Gino Valle. La professione come sperimentazione continua*, Mendrisio: Mendrisio Academy Press Silvana editoriale, pp. 69-85

2025 F. Albani, *Modularità e prefabbricazione in Italia nel Secondo Novecento. Sfide per la conservazione / Modularity and Prefabrication in Italy in the Second Half of 20th Century. Challenge for the Conservation,* in Restauro Archeologico, n. 2, 33, pp. 258-263

2025 F. Albani, *Milano verticale, in principio fu la Velasca: 70 anni con restauro*, in *Giornale dell'Architettura*, 4 febbraio, pp. 1-4

2025 F. Albani, M. Gambaro, *Piacenza Nuova, Piacenza Moderna, i*n *Piacenza Littoria*, Interlinea, Novara

Attachment A2 – PhD Faculty Board

Description of the composition of the Faculty Board

Name	Affiliation	Scientific Disciplinary Sector
Francesca ALBANI (coordinator)	Politecnico di Milano, DASTU Full professor	CEAR-11/B
Bertrando BONFANTINI	Politecnico di Milano, DASTU Full professor	CEAR-12/B
Francesco AUGELLI	Politecnico di Milano, DASTU Associate professor	CEAR-11/B
Massimiliano BOCCIARELLI	Politecnico di Milano, ABC Associate professor	CEAR-06/A
Susanna BORTOLOTTO	Politecnico di Milano, DASTU Associate professor	CEAR-11/B
Alberta CAZZANI	Politecnico di Milano, DASTU Associate professor	CEAR-11/B
Davide DEL CURTO	Politecnico di Milano, DASTU Full professor	CEAR-11/B
Marica FORNI	Politecnico di Milano DASTU Associate Professor	CEAR-11/A
Mariacristina GIAMBRUNO	Politecnico di Milano, DASTU Full professor	CEAR-11/B
Stefano MUSSO	Università di Genova, Full professor	CEAR-11/B
Alessandra OPPIO	Politecnico di Milano, DASTU Full professor	CEAR-03/C
Annunziata Maria OTERI	Politecnico di Milano, DASTU Full professor	CEAR-11/B
Damiano Cosimo IACOBONE	Politecnico di Milano DASTU Associate professor	CEAR-11/A
Angelo LANDI	Politecnico di Milano, DASTU Associate professor	CEAR-11/B
Gianfranco PERTOT	Politecnico di Milano, DASTU Associate professor	CEAR-11/B
Daniele PISANI	Politecnico di Milano, DASTU Associate professor	CEAR-11/A
Sonia PISTIDDA	Politecnico di Milano, DASTU Associate professor	CEAR-11/B
Renzo RIBOLDAZZI	Politecnico di Milano, DASTU Associate professo	CEAR-12/B
Antonella E. SAISI	Politecnico di Milano, DABC, Associate professor	CEAR-11/B
Cristina TEDESCHI	Politecnico di Milano, DICA Associate professor	CEAR-11/B

Daniele VILLA	Politecnico di Milano, Associate professor	CEAR-10/A
Ferdinando ZANZOTTERA	Politecnico di Milano, Associate professor	CEAR-11/A

non-academic staff		
Claudio CHESI	Expert (retired full professor POLIMI)	CEAR-06/A
Marco Andrea PISANI	Expert (retired full professor POLIMI)	CEAR-06/A
Antonio SANSONETTI	Senior Researcher ISPC-CNR	CHEM-01/B
Alessandra BONAZZA	Senior Researcher ISAC-CNR	GEOS-01/D

Attachment A3 – PhD Advisory Board

Description of the composition of the Advisory Board

Name	**Affiliation**
Carla DI FRANCESCO	Director Scuola dei beni e delle attività culturali
Yeo, Sok Yee	Professor, Department of Architecture, Xi'an Jiaotong University
Marie Laure LAVENIR	General Director, ICOMOS International Secretariat
Javier GALLEGO ROCA	Full professor, Restauración Arquitectónica, ETSA, Universidad de Granada (Spain)
Cristina SABBIONI	Past director Istituto di Scienze dell'Atmosfera e del Clima (ISAC-CNR)