



PhD in ARCHITETTURA, INGEGNERIA DELLE COSTRUZIONI E AMBIENTE COSTRUITO / ARCHITECTURE, BUILT ENVIRONMENT AND CONSTRUCTION ENGINEERING - 38th cycle

PNRR_351_PATRIM_CULT Research Field: ENHANCEMENT, NEW FRUITION OPPORTUNITIES AND NEW MATERIALS FOR ARCHAEOLOGICAL SITES. REFERENCE CASE STUDY: POMPEII, THE NEW EXCAVATIONS OF REGIO V

Monthly net income of PhDscholarship (max 36 months)
€ 1275.0
In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity	
Motivation and objectives of the research in this field	<p>The National Recovery and Resilience Plan, Next Generation Italy (2021-26) is divided into six Missions with their specific Components. The main focus of the proposed research is under the theme of 'Digitalization, Innovation, Competitiveness, Culture and Tourism' (Mission 1) and cross-cuttingly under 'Environmental Sustainability and Innovation' (Mission 2). Moreover, the research is developed with reference to the Framework Agreement (2017-2026), Contract of Scientific Collaboration PA-Pompei and Polimi (Promoter DABC, scientific responsible L. Ferro) and the Implementation Agreement (Enhancement of the Domus of Orion, Adonis and Garden, of Archaeological Park Pompeii, Regio V, DABC, scientific coordinator L. Ferro).</p> <p>Substantive points of the proposed research Components related to 'Cultural Heritage for the Next Generation' (Mission 1) and with the following objectives: 'Development of digital strategies and platforms for cultural heritage to foster interoperability and data usability for tourism, technical (business) and research purposes'. 'Improving cultural usability and tourism accessibility</p>



	<p>aimed at removing physical and cognitive heritage barriers to enable wider access and participation in culture, supporting digital transition in tourism and culture sectors, supporting cultural and creative recovery'. 'Environmental Sustainability and Innovation' (also partially cross-cutting with Mission 2, 'Green Revolution and Ecological Transition'): construction of new itineraries (and tourism events) capable of decongesting and diversifying fruition in the post-pandemic era by fostering 'new practices of organization in a logic of sustainability'.</p> <p>The Objective of the proposed research will concern the enhancement of the new Pompeii excavation areas. Knowledge also applied, training of new skills, theoretical development (of the project in archaeological areas), study of Innovative materials and traditional materials applied with innovative techniques, intend to be placed as guidelines for future similar initiatives. Digitalization, data sharing will take place through the innovative use of the platform of the Great Pompeii Project and the National Directorate of Museums. Moreover, the editing and dissemination of results also constitute a moment of high-level scientific project experimentation in the archaeological and historical-monumental field. For this purpose, a period (6 months) is planned at the Superintendence of the Archaeological Park of Pompeii and a period abroad (6 months) at institutes specialized in the field of innovative materials.</p> <p>The research focus will be multidisciplinary: heritage and cultural heritage, architectural design, technological design, structures.</p>
<p>Methods and techniques that will be developed and used to carry out the research</p>	<p>The research work will consist of:</p> <ul style="list-style-type: none"> • Survey regarding the state of the art of enhancement works in archaeology. Methods and projects. • Survey regarding the state of the art of knowledge of construction techniques regarding roofing in archaeological areas. • State of the art knowledge of new excavation areas. • Study of new methods of enhancement project through



	<p>the use of new materials or through the use of traditional materials applied with innovative methodologies.</p> <ul style="list-style-type: none"> • Study and application in the specific cases of the Domus in question. • Application new communication platforms research outcomes. <p>The research will be carried out in qualified specific operational and scientific facilities for study and research activities. Main office Politecnico di Milano (@ polimi.it). A 6-month period is planned at the Pompeii Archaeological Park Superintendency (@pompeisites.org). A period abroad (6 months) will be planned.</p> <p>The location is yet to be precisely defined depending on how the structure of the research evolves one of these facilities will be chosen: University of Brussels VUB (@vub.be), Institute for Research in Lightweight Building Systems or at Engineering Studio FORM-TL, which carries out work in the field of tensile structures and lightweight structures.</p>
<p>Educational objectives</p>	<p>Training objectives: training and development of new theoretical and applied knowledge concerning new materials for enhancement; building new skills related to design in archaeological areas and skills in knowledge transmission through new types of communication platforms.</p>
<p>Job opportunities</p>	<p>New specialized skills in the enhancement of archaeological and monumental heritage through innovative materials and the use of innovative communication platforms could open up prospects at research institutions, in specialized companies and in museums.</p>
<p>Composition of the research group</p>	<p>1 Full Professors 2 Associated Professors 1 Assistant Professors 1 PhD Students</p>
<p>Name of the research directors</p>	<p>Prof. Luisa Ferro</p>

Contacts



Prof. Luisa Ferro
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Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	--
Housing - Out-of-town residents (more than 80Km out of Milano)	--

Scholarship Increase for a period abroad	
Amount monthly	637.5 €
By number of months	6

National Operational Program for Research and Innovation	
Company where the candidate will attend the stage (name and brief description)	Pompeii Archaeological Park Superintendency (@pompeisites.org)
By number of months at the company	6
Institution or company where the candidate will spend the period abroad (name and brief description)	University of Brussels (Belgium)
By number of months abroad	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information

Additional information can be found in the Regulations for the 37th Cycle of ABC-PhD:

download is available at link:

<https://beep.metid.polimi.it/web/abcphd/documenti-e-media>

Additional information about ABC department and ABC-PhD programme:

available at link:

<https://www.dabc.polimi.it/>

Additional support for the research activity:

a total amount of 5.197,62 Euros per student, available since the first year, to be spent according to the department rules.

Study period abroad:

a period of 6 months of study and research at **University of Brussels** (Belgium) is mandatory, preferably during the 1st and/or 2nd year.

Internship in a public administration:

an internship at Pompeii Archaeological Park Superintendency (preferably in the 1st - 2nd year) is mandatory for a period of 6 months.



Desk availability:

the ABC department provides non-permanent desks to be temporarily booked in common PhD rooms.