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Master student.

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Date of Birth: 22 April 1995

Nationality: Egyptian

Education

December
2025

Master of Science in Science for the Conservation and Restoration of Cultural Heritage (Class LM-11) at Department of chemistry, Bologna University, Italy

Thesis title: "Integrated monitoring techniques for on-site damage assessment in historic buildings" - Grade : 103/110

2013 - 2017

Bachelor from Faculty of Archaeology – Fayoum University
Department: Heritage conservation.

Grade: **Very good with honor** Percentage: **89.3%**

May 2013

Certificate of Completion of High School Study,
Department of Science. Grade: **Excellent** Percentage:
93.3 %

Professional Experiences

March 2025
– October
2025

Intern Researcher

National Research Council of Italy – Institute of Atmospheric Sciences and Climate (CNR-ISAC) Bologna

Under the framework of the EU Horizon project "ChemiNova"

- Contributed to the digital documentation and damage mapping of historical buildings (e.g., La Nau, Valencia) using QGIS techniques.
- Participated in the development of non-invasive monitoring methodologies for climate-affected heritage sites.
- Collaborated with international experts and researchers in data acquisition campaigns (Palchetto Della Musica al Foro Italico, Palermo) involving tools like thermal imaging and Spectrophotometer.
- Supported the integration of field data for AI-based analysis aimed at heritage preservation.

2024

Cultural heritage preservation volunteer at the project "inherited culture 2024-vt5 "with open space foundation & European solidarity corps- Veliki Preslav, Bulgaria. (July 2024-September 2024)

- Participated in archaeological excavations and preservation efforts at Veliki Preslav, Bulgaria's second oldest capital.
- Assisted in the restoration of historical artifacts and ancient sites, contributing to cultural heritage protection.

2018	<ul style="list-style-type: none"> • Gained hands-on experience in archaeology, working alongside professionals and international volunteers. <p>Volunteered at the museum of the faculty of archaeology in Fayoum University 2/01/2018 - 30/12/2018</p> <ul style="list-style-type: none"> • Conducted restoration and preventive conservation of artifacts, ensuring their longevity and protection. • Assisted in developing and implementing typical display methods to enhance public engagement and education.
2017	<p>Volunteered work at the conservation center in the national library and archives in Cairo from 24/7/2017 – 4/12/2017.</p> <ul style="list-style-type: none"> • Assisted in the restoration of manuscripts through cleaning, consolidation, and reinforcement techniques. • Contributed to the preservation of historical documents, ensuring their accessibility for future research and public use

Master Thesis:

Title of thesis: “Integrated monitoring techniques for on-site damage assessment in historic buildings”

Degree: Master’s degree in science for the Conservation and Restoration of Cultural Heritage (Class LM-11)

Institution: University of Bologna

Year: 2025

Description:

Thesis focused on the assessment and documentation of deterioration in historic buildings exposed to urban and marine environments using non-destructive integrated techniques to detect structural and chemical damages. The research was carried out with CNR-ISAC ,and within the framework of the EU-funded **ChemiNova Project** and involved two case studies: **La Nau Building (Valencia, Spain)** and the **Palchetto della Musica (Palermo, Italy)**.

Main Activities and Methods:

- Visual survey and classification of deterioration patterns
- GIS-based digital mapping (QGIS) of damage distribution
- Infrared thermography for detection of moisture and subsurface detachment
- Portable spectrophotometry for quantitative analysis of surface colour changes
- X-ray Powder Diffraction (XRPD) for mineralogical characterisation of plasters and salt efflorescences

Key Outcomes:

- Developed an integrated diagnostic workflow combining visual survey, infrared thermography, spectrophotometry, XRPD and GIS mapping.
- Produced georeferenced datasets documenting deterioration patterns in historic buildings.
- Identified moisture-related decay and salt crystallisation processes linked to marine and urban environments.
- Contributed validated data and methodological input to the EU-funded ChemiNova project, supporting future AI-based heritage monitoring tools.

Attendance of Conferences, Workshops & Training course

July 2024	Certificate of attendance the project “ Inherited culture 2024-VT5 in Veliki preslav, Bulgaria – Preserving the cultural heritage of Bulgaria organized by open space foundation and European solidarity corps “ from 26/07/2024-08/09-2024.
April 2017	Training course " Heritage risk management " from April 18 th – 22 nd , 2017 from Civilization and Heritage center at Fayoum University.
April 2017	Internship in: Documentation for the metal Façade in khedewy Ismail Palace – Ministry of Antiquities in March 20 th -2 nd April 2017
March 2017	Training course: Digitization and virtual Museums " from March 13-14, 2017 from ICOM Egypt at heritage Aid Mobile Lab at Faculty of Archaeology-Fayoum University .
Dec 2016	Training course that has been held in 6/12/2016 on " Non-destructive method for analysis the Artifacts " in the center for research and conservation of Antiquities – Fayoum University
October 2016	Training course " Conservation of Mural paintings in Saqqara zone " at Ministry of antiquities , Cairo, Egypt.
Sep 2016	The training course " Preservation of photographic Materials " "that has been held in 20-30 September 2016 at Al Bayt al-Sinnari, Bibliotheca Alexandrina.
July 2016	Internship From Southern Federal university and Fayoum University : Certificate of an active participant of Archaeological excavations and conservation that has been held in Azov city –Russia in collaboration with Azov historical archaeological and paleontological museum in July 2016
November 2015	Training course in Heritage - Aid mobile Lab – Fayoum university “ Advances in scientific Imaging of artworks " that has been held in 29th and 30th November, 2015
Feburary 2015	Training program of” Treatment and Conservation of Metallic Elements in the historical palaces " at the company of Arab Contractor's, Cairo.

Technical skills:

- Digital mapping
- GIS analysis
- Material Analysis & Diagnostic Techniques
- Environmental Monitoring
- Preventive conservation strategies
- Academic Research
- Scientific report preparation

Language skills

Mother tongue : Egyptian Arabic

Other languages:

English : C1 (IELTS Certificate C1 band 7)

Italian : B1

References

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- **Prof. Alessandra Bonazza** Associate professor , Bologna university
Senior Researcher CNR-ISAC Bologna
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 - **Prof. Alessandro Sardella** Associate professor , Bologna university – Senior Researcher CNR-ISAC
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