



Beatrice Vaienti

PHD STUDENT

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CURRENT RESEARCH

I am studying the urban evolution of Jerusalem between 1840 and 1940 through the lenses of western cartography. On one hand I'm structuring this information in a 4D procedural model and on the other I'm analysing biases and errors in these sources to retrieve hidden information and understand copying processes.

SCHOLARSHIPS

Fellow of EPFLGlobleaders

A doctoral fellowship program funded by Horizon 2020 that supports early stage researchers to become leaders in the transition to sustainable societies.

2021-Present

Fellow of Collegio Superiore

The excellence center of the University of Bologna that offers top-performing students interdisciplinary education, free lodging, an annual grant, and tuition fee exemptions.

2014-2020

Scholarship for thesis abroad

2019

Scholarship for free lodging and tutorship at École Normale Supérieure

2019

EDUCATION

PhD student in Digital Humanities

DHLAB - EPFL (EDDH), Lausanne Oct 2021 - Present

Supervisor: Frédéric Kaplan

Co-supervisor: Isabella di Lenardo

Thesis title: Jerusalem 1840-1940: a Genealogy of Cartographic Inventions

BS and MS in Architecture and Building Engineering (110/110 cum Laude)

Università di Bologna (UNIBO) Sep 2014 - March 2020

Thesis title: "Analysis, interpretation and digital reconstruction of the centrally planned churches of Leonardo da Vinci's Manuscript B". Thesis conducted abroad at EPHE-PSL Paris.

WORK EXPERIENCE

Intern, 3D reconstructions

Iconem, Paris

Apr 2022 - Jun 2022

Consultant

Emilia-Romagna's Ministry for Culture and Landscape, Bologna

Jun 2020 - Sep 2021

Intern, VR

Open Project, Bologna

Sep 2019 - Oct 2019

PUBLICATIONS

- Vaienti, B.; Petitpierre R.; di Lenardo I.; Frédéric Kaplan. 2023. "Machine-Learning-Enhanced Procedural Modeling for 4D Historical Cities Reconstruction" Remote Sensing 15, no. 13: 3352. <https://doi.org/10.3390/rs15133352>
- Vaienti, B.; Guhenec, P.; Dupertuis, D.; Petitpierre, R. (2023, June 30). From Automated Bootstrapping to Collaborative Editing: A Framework for 4D City Reconstruction. Digital Humanities 2023. Collaboration as Opportunity (DH2023), Graz, Austria. <https://doi.org/10.5281/zenodo.8107906>
- Vaienti, B.; Guhenec, P.; di Lenardo, I.. 2022. "A data structure for scientific models of historical cities: extending the CityJSON format". In Proceedings of the 6th ACM SIGSPATIAL International Workshop on Geospatial Humanities (GeoHumanities '22). Association for Computing Machinery, New York, NY, USA, 20–23. DOI:10.1145/3557919.3565813
- Vaienti, B.; Apollonio, F. I.; Gaiani, M.. 2020. "Analysis of Leonardo da Vinci's Architecture through Parametric Modeling: A Method for the Digital Reconstruction of the Centrally Planned Churches Depicted in Ms. B." Heritage 3, no. 4: 1124-1147. DOI:10.3390/heritage3040063

TALKS

- Controversial cities. A 4D versioned model for the convergence of historical information - Isabella di Lenardo, Beatrice Vaienti, Paul Guhenne and Frédéric Kaplan. (2023, March 27) UHDL 2023 - 3rd Workshop on Research and Education in Urban History in the Age of Digital Libraries, Munich, Germany.
- Vaienti, Beatrice; Petitpierre, Remi, Kaplan, Frédéric, di Lenardo, Isabella. "Jerusalem 1840-1940: from historical maps to 4D GIS". presented at "Digitizing Jerusalem's Archives: Urban Heritage in the Age of Digital Culture", January 2 2022 to January 4 2022, Bezalel Academy for Arts and Design, Jerusalem, 2022. URL <https://www.bezalel.ac.il/en/jerusalemarchives>.

EXHIBITIONS

- **3D modelling and concepts**
Venise Révélée, Grand Palais Immersif, Paris
At Iconem, I created a 4D reconstruction of the evolution of Piazza San Marco from 800 to present and participated in the design process for two immersive panoramas of Venice and its lagoon, which were then featured in the exhibition .
- **3D modelling and animation**
Viva Venezia!, Belvedere Museum, Vienna
I created the 3D animation of the evolution of the Stato da Terra and Stato da Mar of the Republic of Venice between 1100 and 1800, which was featured in the exhibition "Viva Venezia!".

SUMMER SCHOOLS

- **Museo Futuro, course in experimental museography**
Museo Madre, Napoli Jan 2021 – Jul 2021
- **Venice Virtual Summer Camp on Digital and Public Humanities**
Venice Centre for Digital and Public Humanities (VeDPH), Ca' Foscari University, Venice Jul 2020
- **Landscape Education for Democracy**
University of Kassel Jul 2017

CERTIFICATES

Italian qualification to the profession of Civil and Environmental Engineer
30/07/2020

IELTS Overall Band Score: 8.0
03/03/2018

LANGUAGES

Italian (mother tongue)



English



French



TEACHING EXPERIENCE

Teaching Assistant for the courses:

- *Foundations of Digital Humanities (EPFL)*
Professor: F. Kaplan A.A. 2021-2022, 2022-2023, 2023-2024
- *Architectural Drawing and Graphic Analysis (UNIBO)*
Professors: F. I. Apollonio, F. Fallavollita A.A. 2020-2021
- *Urban Planning and Practice-Oriented Design Studio (UNIBO)*
Professor: S. Tondelli A.A. 2020-2021
- *Architectural Representation Studio T1 (UNIBO)*
Professor: Marco Gaiani A.A. 2020-2021