

## Events

# UID PhD Summer School Around Palladio / Attorno a Palladio. *Nuove metodologie di disegno per l'architettura*

Elisabetta Caterina Giovannini

The Polytechnic Department of Engineering and Architecture and the Science and Technology Pole of the University of Udine organized from June 13 to 17, 2022, the second PhD Summer School of the *Unione Italiana per il Disegno* entitled *Around Palladio / Attorno a Palladio. Nuove metodologie di disegno per l'architettura*. The Summer School [1], dedicated to advanced PhD training in the disciplines of representation, allowed PhD students to have a direct experience with respect to advanced tools and methods for the analysis, documentation, visualization and dissemination of architectural and cultural heritage. The initiative was held in continuity with the first edition, which took place from September 24 to 28, 2018, at the National Archaeological Museum of Aquileia and the University of Trieste's Gorizia Pole on the topic of *Cultural Heritage Survey and Inclusive Representation for Museum Accessibility / Rilievo dei beni culturali e rappresentazione inclusiva per l'accessibilità museale*.

The Summer School was inaugurated by an Open Conference entitled *Around Palladio / Attorno a Palladio. Architectural Drawing Between History and New Technologies of Representation / Il disegno di architettura tra storia e nuove tecnologie di rappresentazione* (fig. 1), held at palazzo Garzolini di Toppo Wassermann, home of the University of Udine Graduate School. The interdisciplinary conference featured international

speakers who addressed the topic of architectural drawing in the sixteenth-century context, both for architectural history and disciplines of representation.

After institutional greetings, the President of the *Unione Italiana per il Disegno*, Francesca Fatta opened the first day's proceedings by bringing greetings from the scientific community and emphasizing the success of the initiative in involving 11 universities, with the presence of their respective young doctoral students. Alberto Sdegno (University of Udine), coordinator of the initiative, after the presentation of the event, passed the floor to Donata Battilotti (University of Udine), moderator of the *History of Architecture* section, to introduce the *Lectio Magistralis* by Howard Burns, President of the Scientific Council of the Andrea Palladio International Center for Architectural Studies and professor emeritus of History of Architecture at the Scuola Normale Superiore in Pisa, entitled *Palladio: drawing as metamorphosis; the built as an alternative project / Palladio: il disegno come metamorfosi; il costruito come progetto alternativo*. Burns addressed the relationship between drawing conventions and the built project, recalling that Palladio's drawings often leave free design interpretation. The representation of architecture thus becomes a multi-layered system where different transformations

and metamorphoses of the same project can be read.

Sabine Frommel, Directeur d'Études Histoire de l'art de la Renaissance at the École Pratique des Hautes Études - Sorbonne (PSL), presented the paper *Leonardo's Architectural Drawings: assimilation and hybridization of models / Disegni architettonici di Leonardo: assimilazione e ibridazione di modelli*. The paper analyzed the architectural language in Leonardo's graphic production recognizing how the historical context and the Italian Renaissance influenced his design process.

Vitale Zanchettin, head of the Superintendence of Architectural Heritage of the Vatican Museums, addressed the topic of graphic analysis of architectural drawings with the contribution *The Perspective of the School of Athens. The rediscovery of method in a 'forgotten' drawing / La prospettiva della Scuola di Atene. Il ritrovamento del metodo in un disegno 'dimenticato'*. The talk made reference to the preparatory cartoon for Raphael's *School of Athens*, in which it is possible to observe the role of the architect in moving from the practical need to draw a large perspective to a geometric problem of creating the background of the scene in the foreground of the painting.

The first day of studies concluded with a visit curated by professor Donata Battilotti to the palazzo Antonini-Maseri, designed by Andrea Palladio in the mid-16<sup>th</sup>

Unione Italiana per il Disegno  
**PHD SUMMER SCHOOL**  
*Open conference / Workshop*  
 Udine 13-17/06/2022

Università degli Studi di Udine  
 Dipartimento Politecnico di Ingegneria e Architettura  
 Polo Scientifico Tecnologico

con il contributo del CISM – International Centre for Mechanical Sciences  
 e il patrocinio dell'Ordine degli Architetti, Pianificatori, Paesaggisti e  
 conservatori della Provincia di Udine

*Open Conference*  
**Around Palladio / Attorno a Palladio**  
**Il disegno di architettura**  
**tra storia e nuove tecnologie**  
**di rappresentazione**

Palazzo Garzolini di Toppo Wassermann  
 via Gemona 92  
 Aula T9

Lunedì 13 giugno 2022  
 ore 15.00-18.30

Martedì 14 giugno 2022  
 ore 9.30-13.00

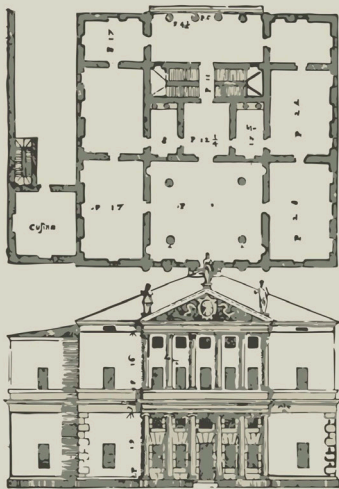


Fig. 1. Flyer of the event.

century, formerly home to the Banca d'Italia and now the Rectorate of the University of Udine.

The second day addressed the themes of architectural representation and its new languages. The session *Representation* was moderated by Alberto Sdegno and began with the talk by Mario Docci, professor emeritus of Sapienza University of Rome, *Drawings, Surveys, Plans and Proportions in the Work of Andrea Palladio / Disegni, rilevamenti, progetti e proporzioni nell'opera di Andrea Palladio: a critical reading of survey drawings, preparatory sketches and plans* edited by Palladio.

Marco Gaiani (University of Bologna), presented the paper entitled *Andrea Palladio Seen, Analyzed, Communicated and Narrated Digitally / Andrea Palladio visto, analizzato, comunicato e narrato digitalmente*, illustrating the outcomes of different researches that introduced digital tools to see, analyze, communicate and narrate Palladio and, in particular, the experiments he conducted: *Palladio Digitale*, the digital edition of *The Four Books of Architecture* and *Andrea Palladio 3D geo database*.

Cristiano Tessari (University of Udine) addressed the topic of *Palladio's Antiquity / L'Antico di Palladio* by highlighting how the master, through his graphic work, modified evidence from antiquity and his own work to validate his theories.

Pedro Manuel Cabezas Bernal (Universitat Politècnica de València), spoke instead about *Gigapixel Photography for the documentation of paintings / Fotografia gigapixel per la documentazione dei dipinti* and how this innovative technology is increasingly being used by museum institutions for the analysis and dissemination of cultural heritage by making it accessible to a wide and heterogeneous audience.

Giuseppe Amoroso (Politecnico di Milano) with his talk entitled *Palladio's Teatro Olimpico. Digital Experience at the Borders of Classical Theater / Il Teatro Olimpico di*

*Palladio. Esperienza digitale ai confini del teatro classico*, he expounded the analysis conducted for the *frons scaenae, proscaenium*, and *cavea* for the purpose of three-dimensional restitution from the digital acquisition of the Teatro Olimpico in Vicenza, Italy, designed by Palladio and built by his son Silla after 1580.

Orietta Lanzarini (University of Udine) addressed the topic of *The Antiquarian culture. Representation and Interpretation / La cultura antiquaria. Rappresentazione e interpretazione* in which drawing becomes a tool for designing and sharing ideas.

Finally, Alberto Sdegno presented a contribution entitled *Virtual Models of Palladian Architecture / Modelli virtuali di architettura palladiane* in which he described the genesis and advanced representation of some Palladian palaces, villas and bridges. The participants and academics of the PhD Summer School continued their work with the application session at The Advanced 3D LAB at LAB Village, recently started at the University of Udine, thanks in part to funding from the Friuli Venezia-Giulia Region.

The workshop, as highlighted by the event's subtitle, *New Drawing Methodologies for Architecture / Nuove metodologie di disegno per l'Architettura* was divided into three thematic seminars that covered the most innovative technologies for representing architecture: 3D capture, rapid prototyping tools and methods, and virtual, immersive and augmented reality applications.

During the first day, as part of the seminar on *Innovative Technologies for Architecture / Tecnologie innovative per l'Architettura*, doctoral students were able to experience the workflow from digital capture to 3D printing. Various 3D prototypes printed with different tools and materials were described. Elisabetta Caterina Giovannini delivered a lecture entitled *The Communication and Enhancement of Cultural Heritage through the Use of Open and Web-based*



Fig. 2. Panoramic photo with participants of the UID PhD Summer School 2022.

*Solutions / La comunicazione e valorizzazione del Patrimonio Culturale mediante l'utilizzo di soluzioni open e web-based.*

*Within the seminar Virtual and Augmented Reality for Architecture / Realtà virtuale e realtà aumentata per l'architettura, several case studies were examined: Augmenting Painting: perspective restorations of paintings and applications in augmented reality / Augmenting Painting: restituzioni prospettiche di dipinti e applicazioni in realtà aumentata (Silvia Masserano, Veronica Riavis), Zaha Hadid's Vitra Fire Station in immersive reality (Mattia Comelli), to which were added other case studies including real time navigation within Le Corbusier's Esprit Nouveau pavilion. Pedro Manuel Cabezas Bernal illustrated the workflow required for the creation of spherical panoramas (fig. 2) and their use in the field of Cultural Heritage for the creation of virtual tours. Silvia Masserano's talk on The architectural perspectives of the canvases of Paolo Caliari, known as Veronese / Le prospettive architettoniche dei teleri di Paolo Caliari, detto il Veronese, concluded the day.*

*The seminar Virtual Reality Applications to Digital Models/ Applicazioni di Realtà Vir-*

*tuale a Modelli Digitali featured an introductory lecture by Giuseppe Amoruso on creating BIMx hyper-models for museum exhibit design. Veronica Riavis presented a paper entitled Tactile representations of architecture and painting: geometric reconstruction of the church of Sant'Ignazio in Gorizia and perspective restitution of the wall fresco / Rappresentazioni tattili di architettura e pittura: ricostruzione geometrica della chiesa di Sant'Ignazio a Gorizia e restituzione prospettica dell'affresco parietale. Several case studies were subsequently illustrated: Frank Lloyd Wright's Waterfall House in virtual reality (Simone Veneziano) and the interactive Gorizia castle. The doctoral students were thus able to experiment with different advanced interaction techniques using immersive systems such as HTC Vive and Oculus Quest 2.*

*Particular attention has therefore been paid to the digitization processes affecting cultural heritage today, which increasingly refer to the broader concept of digital transition. Virtual, immersive and augmented reality are thus tools to which the discipline of representation turns its attention with a cultural gaze and a scientific dissemination perspective.*

## Notes

[1] The Summer School was promoted and funded by the *Unione Italiana per il Disegno (UID)* with additional financial/organizational support from CISM - International Centre for Mechanical Sciences. The initiative had the logis-

tical support of the Polytechnic Department of Engineering and Architecture of the University of Udine and was sponsored by the Order of Architects, Planners, Landscape Architects and Conservators of the Province of Udine with

an economic contribution from the company Techno Serramenti. The event was held as part of the initiative UID - *Survey and Representation Days - Specialist Seminars in the Disciplines of Drawing for PhD Students.*

## Author

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