



# THE SCHOOL OF MATHEMATICS AT ROME'S UNIVERSITY CAMPUS

GIO PONTI, 1935

Edited by Simona Salvo | Sapienza University of Rome

The Getty Foundation | Keeping It Modern Project

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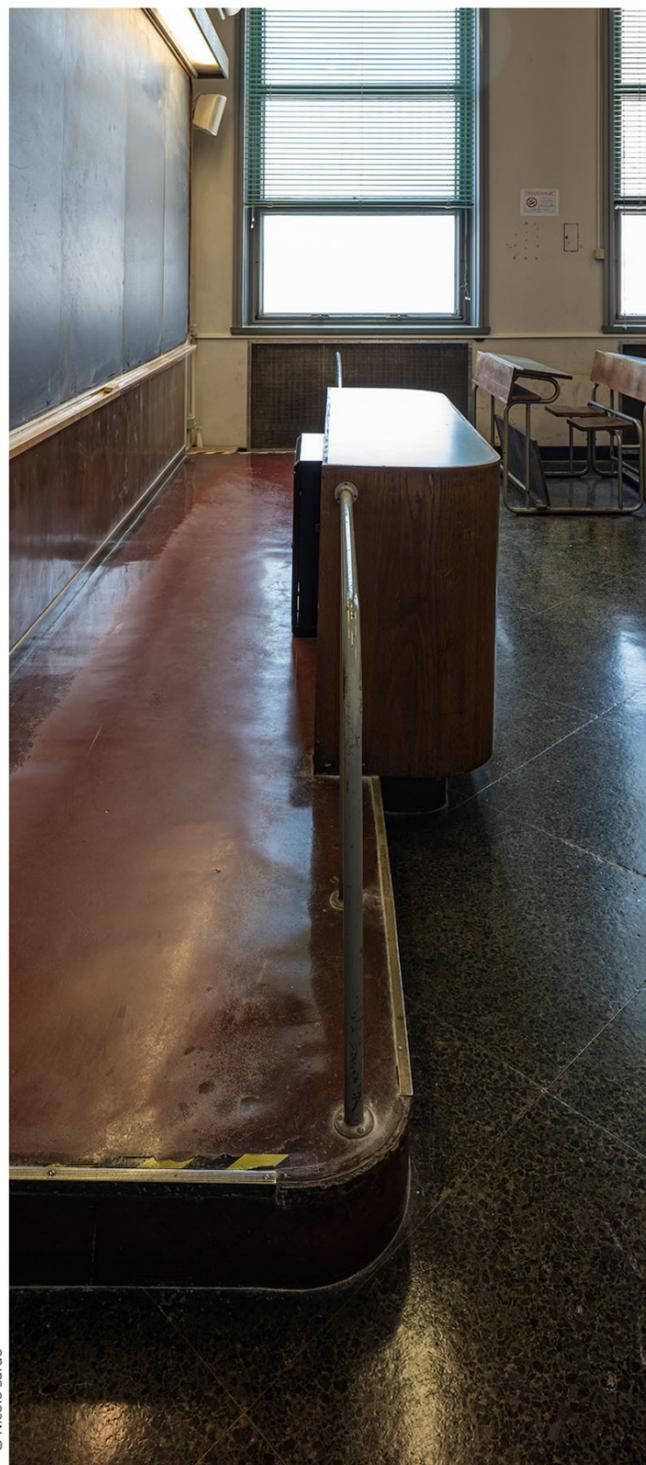
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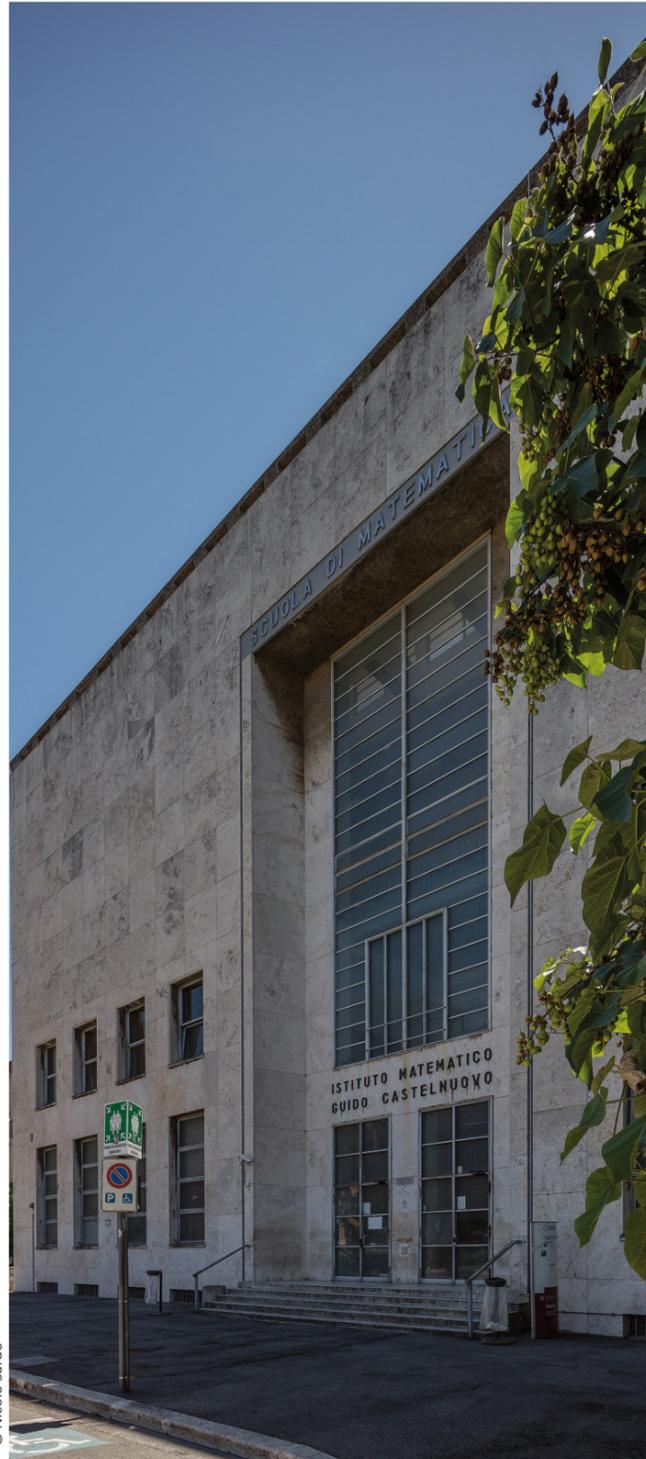
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 List of Research Documents | KIM2018\_R-ORG-201838588  
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## THE INTERIORS: FURNISHINGS, DOORS AND LIGHTING FIXTURES

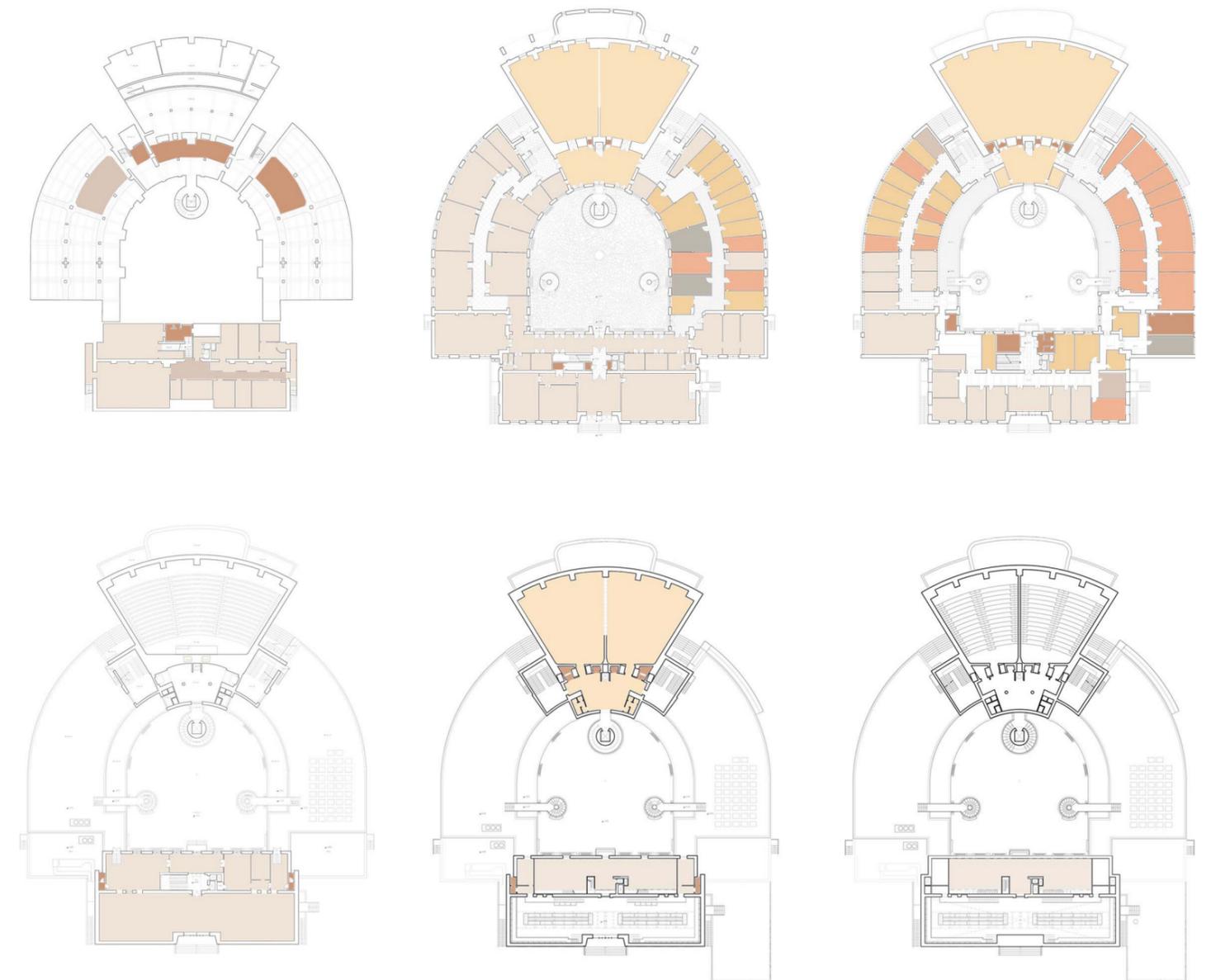
Flamina Bardati, Chiara Turco

In Gio Ponti's project for the School of Mathematics, as in many of his projects, the design of the interiors and of the furniture represented an important matter, equal to architectural design. His drawings indicated precise instructions about the shape, the colours, the materials and their finishes, sometimes asking to modify the models proposed by the furniture suppliers who were entrusted with the work. Such an attention to every detail of the furnishings has left traces in the archival documentation. The companies often asked to adjust the agreed price per item in consequence to the supplementary of work and the major quantity of materials required by Ponti's modifications.

The systematic investigation on furniture and doors, both the original and the ones added later, helps to understand the entire project for the interior- and therefore of the architecture in its entirety- as well as the building's story. In fact, new furnishings were produced for the School of Mathematics in occurrence of the phases of its life, already before the deep transformations from the 1960s onwards.

Therefore, the first step of this research was a preliminary survey of the furnishings and doors existing in the building in 2020 (Figure 1)<sup>4</sup>. The survey immediately revealed the coexistence of objects from different periods and provenience in almost all rooms; thus, contextualization of each item with respect to the main construction and transformation phases was a prior step in view of the identification of each item. For this reason, the analysis of the building's history, based on the archival sources also concerning the entire campus, has been carried out in close collaboration with

Figure 1 - Chronology of on-site survey of furniture and interiors (© Turco 2021)



### LEGEND

 first survey 06.02.20, last survey 31.03.21	 first survey 18.06.20, last survey 12.04.21	 first survey 31.03.21, last survey 31.03.21	 spaces detected through photos sent by teachers
 first survey 18.06.20, last survey 31.03.21	 first survey 17.09.20, last survey 31.03.21	 first survey 12.04.21, last survey 12.04.21	

the historical critical investigation and developed with a cross disciplinary strategy.

Within the chronological span that frames the life of the building's furnishing- 1935-2020- six major phases have been identified, ranging from the first supply of furniture pieces to their integration, additions and varied alteration;

- Phase 1- 1935-1938

Design of the first furniture and doors supply.

- Phase 2- 1939-1942

Transformations, new furnishings, and new doors due to the introduction of the seat of IndAM in the upper floor of the west curved wing.

- Phase 3- 1943-1949

Completion of furnishing after the war damages due to the occupation by the German troops, then by the allied bombing, and further by the allied occupation.

- Phase 4- 1950-1974

Integration of furnishing due to major architectural transformations.

- Phase 5- 1975-1980

Introduction of new furnishings and doors due to further main architectural transformations concerning the front building and the curved wings.

- Phase 6- 1980-2020

Adaptation furniture to safety standards and new supplies.

The data derived from the analysis of archival sources relating to furnishings and doors (supplies contracts, reports, drawings, photographs, videos) have been compared with the objects identified during the survey, in order to recognise which piece was attributable to the original project and which one to following periods.

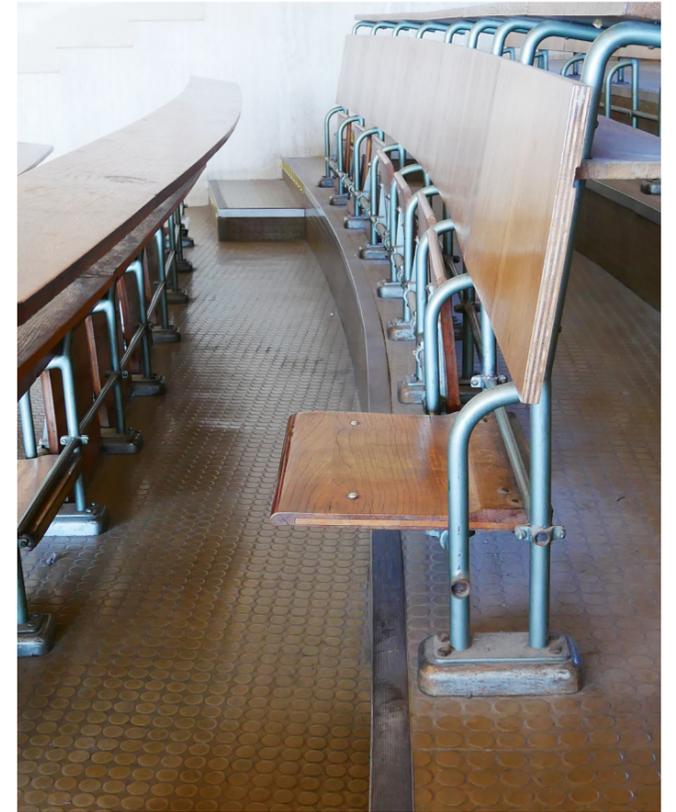
During this step of the research, several methodological issues specifically linked to furniture emerge, concerning the dating, the materiality and state of conservation of each item.

The most important is referred to the numerous alterations

- repairs, relocation, dimensional adjustments due to safety reasons, painting etc. - suffered by the objects over time. In general, furniture is subject to considerable wear, which can involve both its replacement and restoration or maintenance (i.e. loss of the item or modification of its original state), while doors have been very often adequate to safety standards (phase 6, 1980-2020), sometimes replaces or moved, in particular during the phases 3 (1943-1949) and 5 (1975-1980).

Fixed furnishings may also need to be adapted to current safety regulations or to changing needs with consequent modification of the original state, as in the case of the formidable curved rows of integrated desks and chairs of the 3rd floor of the Tower of classrooms, cut to adapt to two smaller teaching space obtained by the division of the 434-seat classroom in 1960 (Figure 5). If this kind of intervention could be dated, other actions as the small, continuous, undocumented maintenance works relating to locks, handles, studs, coatings, glass etc. keep the object 'alive' and usable but alter its original state, making the dating and recognition more difficult. In fact, generally the archival sources only allow to date 'original' doors and furnishings belonging to phase 1 (1935-1938), while, for the following ones, materials and artisanal or industrial processing of the original pieces could help to hypothesize a plausible dating: the "do-it-yourself" actions make often impossible this kind of analysis.

The documents conserved in Sapienza's historical archive, within the section of the CERUR Consortium, and the historical pictures and shootings of 1938-1939, represent valuable sources that allow a scientific analysis of the original doors and furnishings (phase 1, 1935-1938), strictly linked to Ponti's vision of interior architecture. Nevertheless, there are gaps in this systematic reading of the archival sources, such as the presence of lists of furnishings with pairable drawings which do not correspond to any survived furniture, or



*Figure 2 - A row of desks in the tiered lecture hall at the third level supplied by the firm Liporesi; note the chromed steel tubes, sheared in 1960 to adapt the display of the furniture as the room was divided into two (© Bardati 2021)*

vice versa the presence of furniture stylistically datable to phase 1- that is the one to be considered original- which is not mentioned in the documents.

Another critical factor concerned the initiative to furnish the rooms modified in 1939 with items similar or identic in shape and materials to the original ones, as in the case of the doors supplied to reorganize the spaces destined to IndAM, explicitly produced following the originals designed by Ponti (Figure 6), or of the teachers' desks for the new tiered lecture hall at the third floor of the tower of classrooms.

Furthermore, it should be noted that not all archival drawings of the 1930s concerning furniture correspond to items effectively purchased. The industries that supplied them often proposed several models and solutions on catalogue, among which the architects made their choice, some of which could also be rejected by the Administration. Similarly, the archival sources mention furnishings that have gone lost during the transformations undertaken from the 1960s onwards, as in the case of the drawing tables placed in the curved wings (ASS\_drw\_81; ACS\_pht\_14 and 15; GPA\_pht\_03) and of the sofa in the Council Hall (ASS\_drw\_80). Another difficulty has been encountered with the identification of the modifications required by Ponti, as the furnishing sometimes appears quite different from the drawing, as in the case of the coat hangers (ASS\_drw\_107).

Yet, the greatest difficulty concerns the supply of furniture dating back to phases 4-6 (1950 to today), which has left almost no trace in the archives. These pieces of 'anonymous' furniture represent the most conspicuous part of the building's furnishing, not always of historical or artistic interest, mostly produced in recent times.

Therefore, after a first bibliographic and archival investigation, the corpus of furnishings datable between 1935 and 1980 has been revised, excluding what was subsequently introduced into the building. These

chronological limits have been identified as follows: spring 1935 is the date of the first documents related to the inner doors and furnishings of the Mathematics building (ASS\_dcm\_51; ASS\_dwg\_75; ASS\_dcm\_53 and ASS\_dwg\_76); 1980 is the terminus of several events that subvert the internal organization of the building. The transformation of the professors' lobby into two minor rooms in 1954 and the subdivision of the major tiered lecture hall at the third level of the Tower in 1960, mark the beginning of deep functional changes; the students' protests and occupation of the campus buildings in 1968 and in 1977 contributed to the dispersion of various pieces of furniture (and probably to the shift of pieces from one building to the other); the campaign of further extensive functional modifications of the curved wings dates to the years 1974- 1980. Last but not least, Gio Ponti passed away on September 16, 1979.

Once the chronological limits were established, the following step consisted in drawing up a catalogue of furnishings and doors, in separate series.

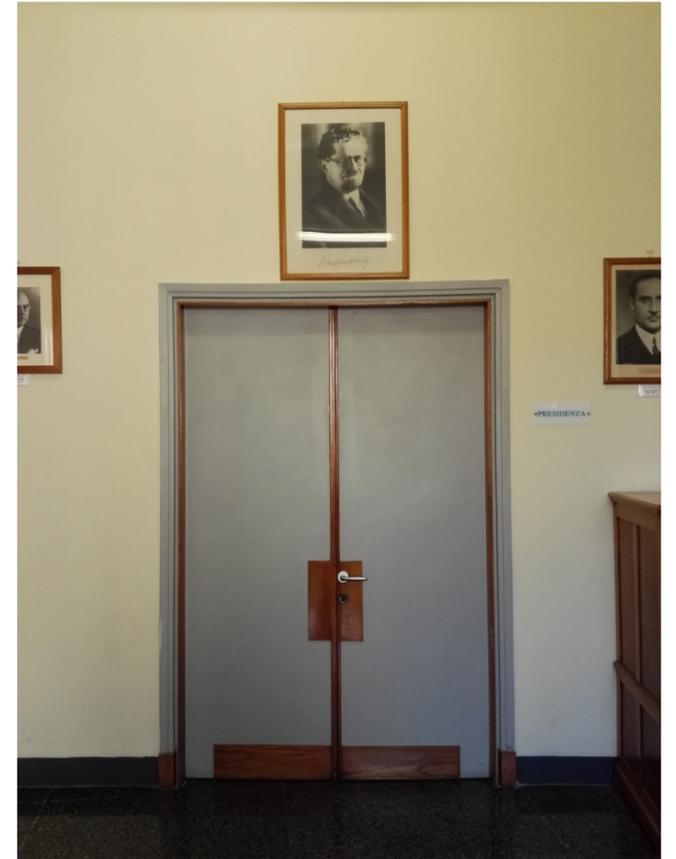


Figure 3 - Entrance door supplied in 1939 for IndAM offices in the east wing, replicating the original design of Model B2 produced in 1935 by firm Cantieri Milanesi (© Bardati 2020)

Targeted inspections allowed to further define the items to select for the catalogue and to discover several chairs, armchairs, benches, stools, tables and even blackboards and shelves, stocked in the basement of the Tower of classrooms, and reduced to very bad conditions. Following these surveys, seven main categories of furniture were identified: chairs, tables, lighting fixtures, leaning furniture, suspended furniture, platforms and more, each including specific under categories and types. The catalogue also provides a localization of each specific piece of furniture to its location (as of 2021, at the date of the survey) marked with an identification code on the survey drawings<sup>5</sup>. The mapping resulting from this survey in 2021 was then compared to the original location of the pieces in 1935, when possible<sup>6</sup>.

Concerning the doors, a selection of the ones attributable to the original design and following periods, including the transformations of the 1960s-1970s were included in the catalogue. Again, the story of the building was a useful reference to propose dates and relative phases for the doors: 1935-1937 (first project); 1939-1940 (creation of INDAM headquarter); 1954 (transformation of the open lobby on the 1st floor to create two professors' studios); 1969-1980 (extension of the curved wings and subdivision of drawing classrooms into five teaching spaces and in many offices). As in the case of the furniture, an identification code was linked to each door, to allow a precise mapping of the doors on to the survey drawings (as of 2021 at the date of the survey), again compared to the original location or to our hypothesis.

The aim of these catalogues is to allow a more precise knowledge of the furnishing, intended as a specific heritage of the School of Mathematics, very representative of Ponti's idea of architecture where space, interior design and furniture are always considered as a one, but also featuring the aesthetic of the Thirties and of the development in terms of taste, functions and functional needs since then until the present day.



*Figure 4 - Chairs, armchairs, tables, blackboards and other old furnishing dating back to the 1930s stacked in the basement of the building (© Salvo 2020)*



## SCIENTIFIC PROFILES OF AUTHORS

### **Martina Attenni**

Architect and PhD, is adjunct professor since 2019 at the Department of History, Representation and Restoration of Architecture at Sapienza University of Rome. She is interested in integrated methods of non-contact surveying for architectural and archaeological heritage, and studies 3D surveying technologies and data modeling, and BIM/HBIM processes for the knowledge, management, and communication.

### **Flaminia Bardati**

Architect and PhD, is Associate Professor of History of Architecture at Sapienza University. Her research interests mainly focus on cross-cultural interactions between Italy and France from the 15th to the early 20th century, especially on the role of cardinals' patronage of arts in the diffusion of Renaissance (research supported by a Getty Postdoctoral Fellowship in 2006). She has published extensively on these topics, with books essays and articles on national and international scientific reviews and, more specifically, on Sapienza's seat of the School of Architecture in piazza Borghese and on the interiors of Gio Ponti's School of Mathematics.

### **Maria Carla Ciacchella**

Conservation Scientist, PhD in Materials Engineering, is a conservation scientist mainly interested in material characterization, provenance studies and technologies applied to cultural heritage. Her professional activity deals with the analyses of the materials the construction techniques and the state of conservation.

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Mathematician, currently PhD candidate, studied at "La Sapienza" in Rome, where he completed his Bachelor (2018) and Master (2020) in Mathematics. He is currently PhD candidate at the University of Glasgow. His research focusses on algebra and representation theory, with applications to integrable systems. He is particularly interested in problems of quantization, both of Poisson and Poisson vertex algebras.

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Architect, Specialist and PhD student in Architectural Conservation at Sapienza University, has recently obtained funding for research on recycled materials dedicated to architectural conservation. Her scientific interests focus on the conservation of modern architecture and on advanced sustainable policies for the conservation and maintenance of construction materials.

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Architect and PhD in History of Architecture at Sapienza University of Rome, is currently freelance professional in historical and archival investigation and has long collaborated with the Accademia di San Luca of Rome in the reorganization of 20th century architects' archives and with the Italian Ministry of Culture within the project "Censimento delle Architetture del Secondo Novecento". His scientific interests focus on the history of Italian modern architecture and on contemporary urban planning.

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Architect, qualified in Restoration of Monuments, has taken part in research activities at ICCROM-International Centre for the Study of the Preservation and Restoration of Cultural Property, in restoration sites for the consolidation of frescoes, experimenting hydraulic mortars. She has cooperated with IsCR-National Institute for Conservation and Restoration in educational sites and takes part to research and teaching activities of the Architecture courses at Sapienza University, where she is currently the technical manager of AStRe LabMat Laboratory for Historical Architecture and Restoration.

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Engineer and PhD, is currently Associate Professor at Sapienza University of Rome. He obtained his M.S. degree in Hydraulic Engineering in 1988 and his Ph.D. in Geotechnical Engineering in 1995, from Sapienza University of Rome. Primary research interests are in geotechnical engineering, with focus on soil dynamics. He has participated to national and international research projects and has been speaker and session leader in national and international conferences. He is the author or coauthor of more than 150 scientific publications.

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Mechanical engineer and PhD, is Assistant professor in Technical Plants at Sapienza University of Rome since 2002. He has been carrying out research activities since 1999, focussing on procedures and methodologies for the control and improvement of energy-environmental quality in buildings, with specific reference to the passive behaviour of the building envelope; on plant systems with low primary energy consumption that rely on renewable energy sources or high-efficiency plant systems; and on the definition of maintenance strategies to increase energy efficiency of the building heritage.

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**Maria Rosso**

Architect and PhD, she has been postdoctoral fellow at the Research Center for Sciences Applied to the Protection of the Environment and Cultural Heritage at Sapienza University of Rome has obtained a Master's in Museum Didactics Centre of the Roma Tre University and has worked for CNR-National Research Center. She is currently cooperating within CITERA Department of Sapienza University focussing on adaptive reuse of historic buildings and perceptive comfort.

**Simona Salvo**

Architect, PhD and Specialist, is Associate Professor in Architectural Conservation at Sapienza University of Rome. Her scientific interests are focused on restoration theory and technology, especially concerning contemporary architecture, and the dynamics of spread of the conservation culture throughout the world, and therefore carries out research and teaching activities in collaboration with international universities and cultural institutions. She has lectured extensively and has coordinated national and international research projects, among which the restoration of the Pirelli skyscraper in Milan (2002-2004). She has authored a number of scientific publications concerning architectural conservation.

**Maria Laura Santarelli**

Chemist and PhD, is Associate Professor at the Department of Chemical Engineering Materials and Environmental of Sapienza University of Rome. She has been Director of the CISTeC-Research Centre in Science and Technology for the Conservation of the Historical-Architectural Heritage of the same university (2013-2019) and is currently responsible for the Heritage-Lab of Sapienza University of Rome and member of the DTC Lazio-Technological District for the Cultural Heritage of the Lazio Region. She has authored over hundred scientific publications.

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**Chiara Turco**

Bachelor's Degree in Architectural Sciences with honors at Sapienza University in March 2020 with a dissertation on Gio Ponti's School of Mathematics, she is currently enrolled in the Master's Program in Architecture (Conservation) at Sapienza University and has obtained an internship at the International Research Center on Contemporary Arts of the Venice Biennale.



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