



THE SCHOOL OF MATHEMATICS AT ROME'S UNIVERSITY CAMPUS

GIO PONTI, 1935

Edited by Simona Salvo | Sapienza University of Rome



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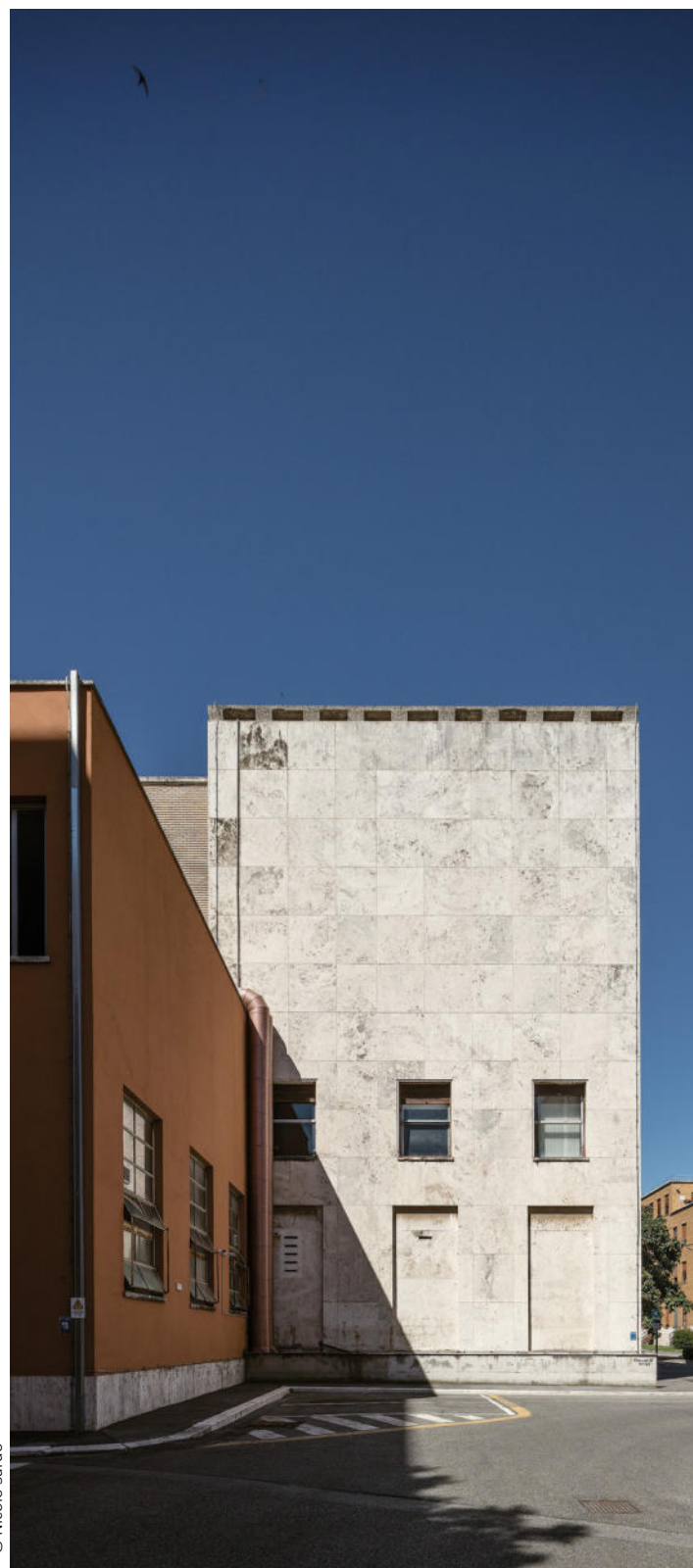
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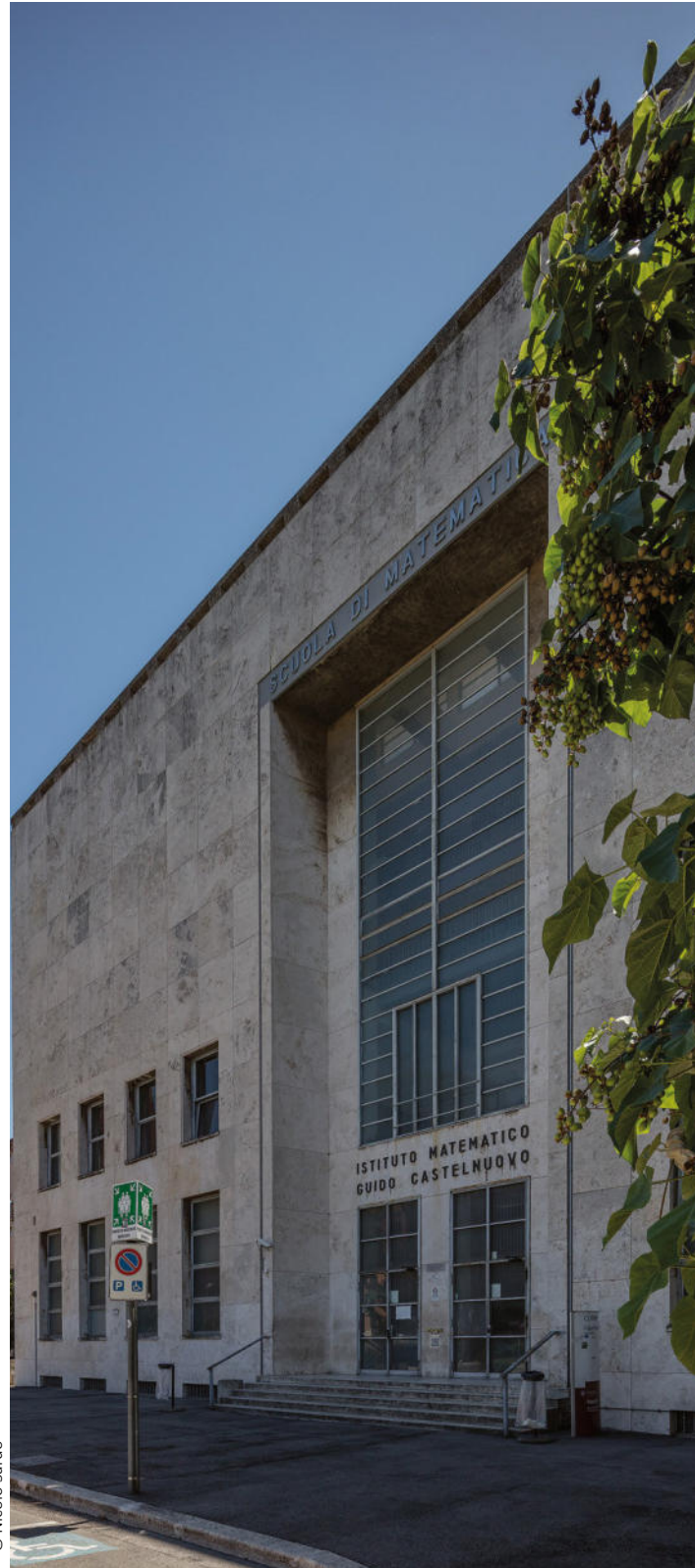
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FUNCTIONS, USES, AND STATISTICS, 1935-2021

Simona Salvo, Marianna Cortesi

Gio Ponti's building has been home to Sapienza's Institute of Mathematics since 1935. This is not just a practical piece of information, but highlights the fact that the building, designed in 1935, was chosen to host one of the best scientific research institutes in Italy, both in the past and now. The names of the building and institute have changed over the years, while the many reforms that have been implemented in past decades have modified the Italian academic system, and also Sapienza University. So, although the building's function has remained unaltered throughout the decades, its use has instead radically changed.

As is well known, continued use is one of the best ways to preserve architecture: in the case of the School of Mathematics this has saved the building from major interventions, but it has also been the main source of 'stress' for its material conservation due to the continuous adjustments it has endured to accommodate the changes in academic activities and regulatory compliance. In other words, the use of a building is a watershed in architectural conservation.

Investigating the way in which the School of Mathematics has functioned and been used in its almost ninety years of life was therefore a key topic in this research, given that continuous and qualified occupation of the building- in line with the scope for which it was designed- is not only a value, but also partially guarantees its conservation. Its continuous use ensures that the site is maintained and cared for on a daily basis; it also establishes a crucial relationship between users and the building, and is the premise for its appreciation and, therefore, its assessment and conservation.

The daily presence of a caretaker, who also lives in the building, is a true asset for its continuous maintenance and care. The 'porter's house' was designed by Ponti as part of the original building in 1935 and has always been used by the porter and his family. This has ensured that the building has always been cared for throughout the years, somehow compensating for the lack of care by the governing body. This is why we have considered the presence of the porter in the building as a key element in the conservation plan.

Researching the functions and uses of the building over a period of time was implemented as follows:

- historical research in archives;
- analysis of research and teaching in the School of Mathematics from the Thirties to the present day;
- identifying the courses taught in the building;
- surveying statistical data regarding increases in the number of students, professors, and staff in the building from 1935 to the present day;
- analyzing the link between the different uses and recurring compliance with safety regulations; trying to find data regarding the use of the more notable spaces in the building, such as the library and courtyard.

We have also recovered and collected statements by those who attended courses in the building in the early Sixties and have continued working there as academics until their retirement; we also interviewed people who have lived in the building, considering it their private home, i.e., the former and current porters.

By merging this information with our analysis of the interiors and furniture we have been able to make our historical reconstruction more accurate, as well as detect weak and strong points.

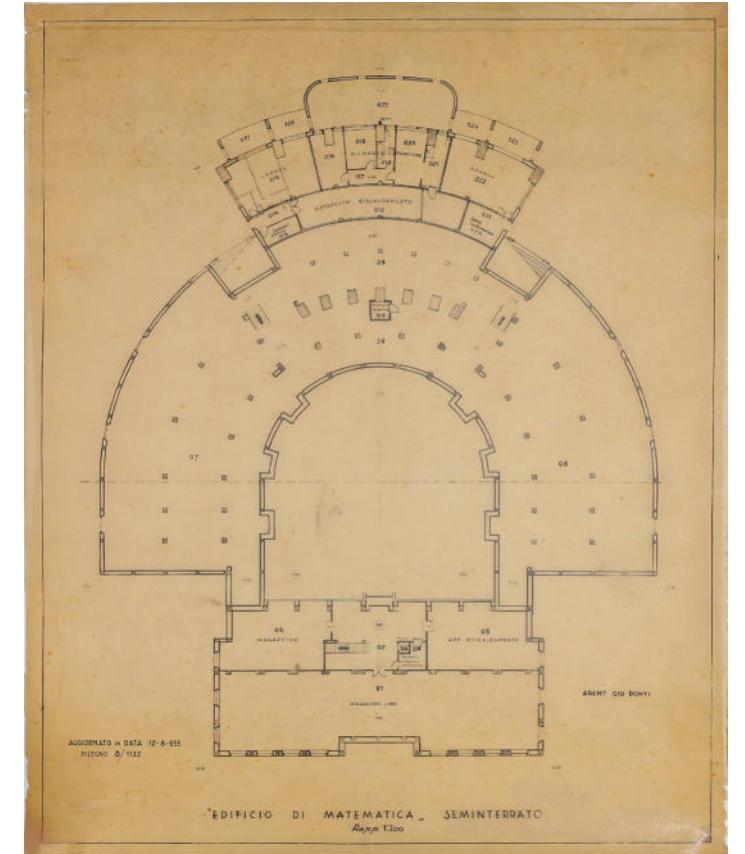


Figure 1 - Plan of the basement designed by Ponti in June 1935; details are provided regarding the house of the porter and his family, located at the foot of the classroom tower with its systems and garages (ASS_drw_69)

A HISTORY OF HOW THE BUILDING HAS BEEN USED

The history of the building, and its archival documentation, shows that one idea was paramount for Marcello Piacentini when he designed the general plan of the University campus and assigned the projects for each building to select architects: it was to ensure that the buildings were functional. To achieve his goal he adopted a dual method: he encouraged each architect to communicate with the older and younger academics of the future Institute, in this case Gio Ponti and the well-known mathematicians Guido Castelnuovo and Enrico Bompiani¹. Archival documents clearly illustrate the correspondence between the three- Ponti, Castelnuovo, and Bompiani- and the exchange of information regarding the space needed for teaching and research activities, as well specific rooms, such as the library.

It is interesting to note that as far back as 1928 there had been an attempt to commission a building for the Institute of Mathematics in the area around via Panisperna, as part of a group of buildings to be used by other scientific institutes. The functional program drafted at that time by the Civil Engineering Corps was not very different to the one developed by Ponti a few years later in 1932².

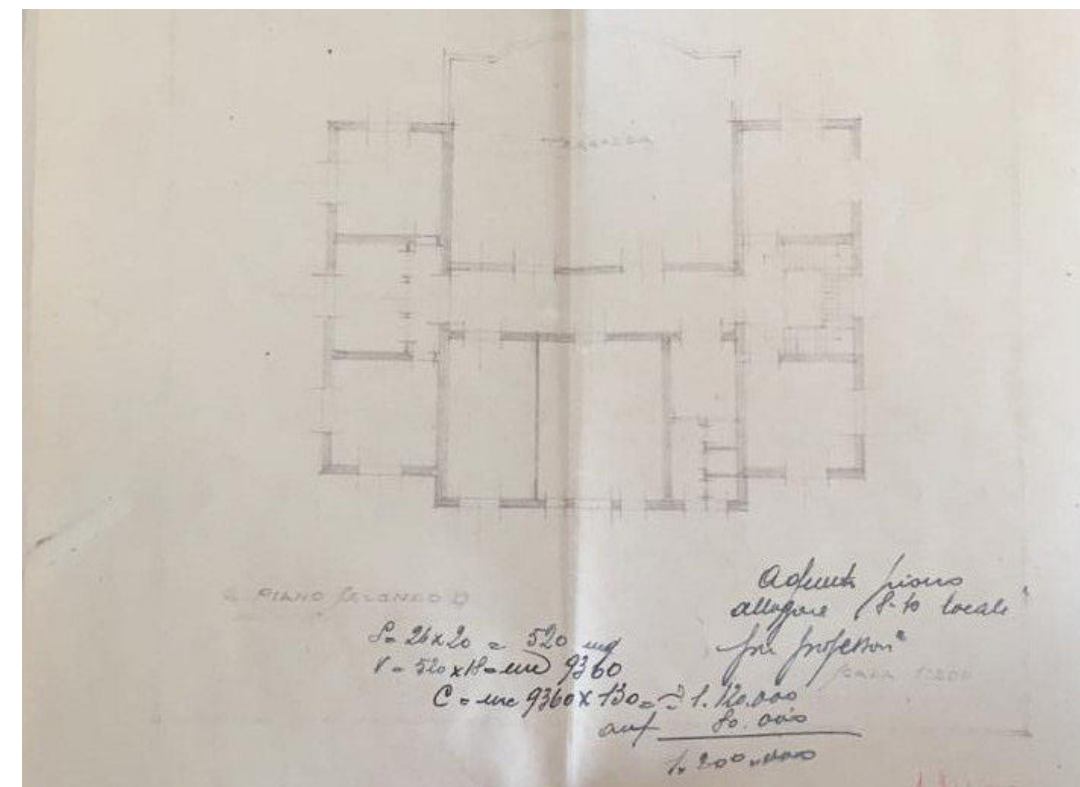
Apart from the list of courses to be held in the classrooms³, other spaces were specifically requested by the two academics, i.e., the professors' rooms, big halls for crowded activities such as seminars and scientific meetings, and a library big enough to contain the numerous books collected by the Institute of Mathematics and housed in the library of the School of Engineering at San Pietro in Vincoli⁴. Ponti's very original library- on three floors and designed as a closed box with walls completely covered in bookshelves- was certainly a great architectural invention, inspired by Castelnuovo's request to house up to 100,000 volumes. A similar input probably came from Enrico Bompiani, but this time it had to do with the need for big, well-lit halls, where it would be possible

Figure 2 - Letter from Guido Castelnuovo to the Rector Francisci, March 30, 1932, explaining which spaces and rooms in the building were to be used by the School of Mathematics in the new University campus, (ASS_dcm_02)

Figure 3 - Plan of the ground floor of a building to be used by the Higher School of Mathematics drafted in 1928 by engineer Tullio Nicoli on behalf of the Civil Engineering Corps Technical Office (ASR_drw_02)

È necessario che, oltre alle due aule da 300 studenti ciascuna e alle due sale di disegno (che per la disposizione dei tavoli non possano prestarsi ad altri usi), si trovino altre due aule da 150 studenti l'una. Ciò per il fatto che per le esercitazioni è necessario dividere gli studenti in due gruppi, e che spesso le esercitazioni di un corso sono contemporanee con quelle dell'altro. Inoltre, è opportuno che 150 persone possano riunirsi per le sedute del seminario o per altre riunioni scientifiche. A tal fine naturalmente vi dovrebbe essere una sala per i professori.

2) Al primo piano occorrono quattro aule per il corso bianco, da 50 studenti ciascuna; o meglio: due da 50, una da 75 e una da 25. Bisogna infatti tener conto, oltre che dei due corsi ordinari, dei corsi di perfezionamento che vorremmo moltiplicare sempre più, e dei corsi della Scuola di Scienze Matematiche e Astronomiche. Al 1° piano dovrebbe esistere anche la biblioteca. Qui vi ricordate che la biblioteca attuale contiene circa 75.000 numeri, di cui oltre 50.000 volumi, e il resto opuscoli. Poiché le nostre pubblicazioni vanno rapidamente aumentando, occorre per il progetto per una biblioteca di 100.000 volumi. A questo vanno aggiunte due sale di lettura, una per i giovani del 1° biennio che hanno bisogno di sorveglianza, l'altra per



to teach “Drawing and Descriptive Geometry”, and big tiered lecture halls, given the many students that would enroll in courses on “pure mathematics”.

At the time there were very few professors’ offices because there were just 23 full professors, of which only eight were ‘resident’ and therefore entitled to have private office space in the front building, to be used for research in ‘Higher Mathematics’. In fact, there are exactly eight rooms on the first floor, all with similar surface areas; they all give onto the central square of the campus⁵. Three less prestigious offices on the same floor overlooked the courtyard and were probably earmarked for younger, recently-hired professors who did indeed arrive over a period of time⁶. The ‘professors’ lounge’, at the junction between the landing of the staircase and the very silent corridor of the offices, was directly connected to the reading room in the library.

After the inauguration of the building and University campus on October 31, 1935, it took several more months to complete the curved wings and the classroom tower, as well as finalize the finishings and furnishing of the School. Although the first academic year on campus was inaugurated in 1935, it is likely that the School of Mathematics was only up to full speed the following year. A picture of Libyan leaders visiting the building in May 1936 is proof that construction was indeed complete⁷.

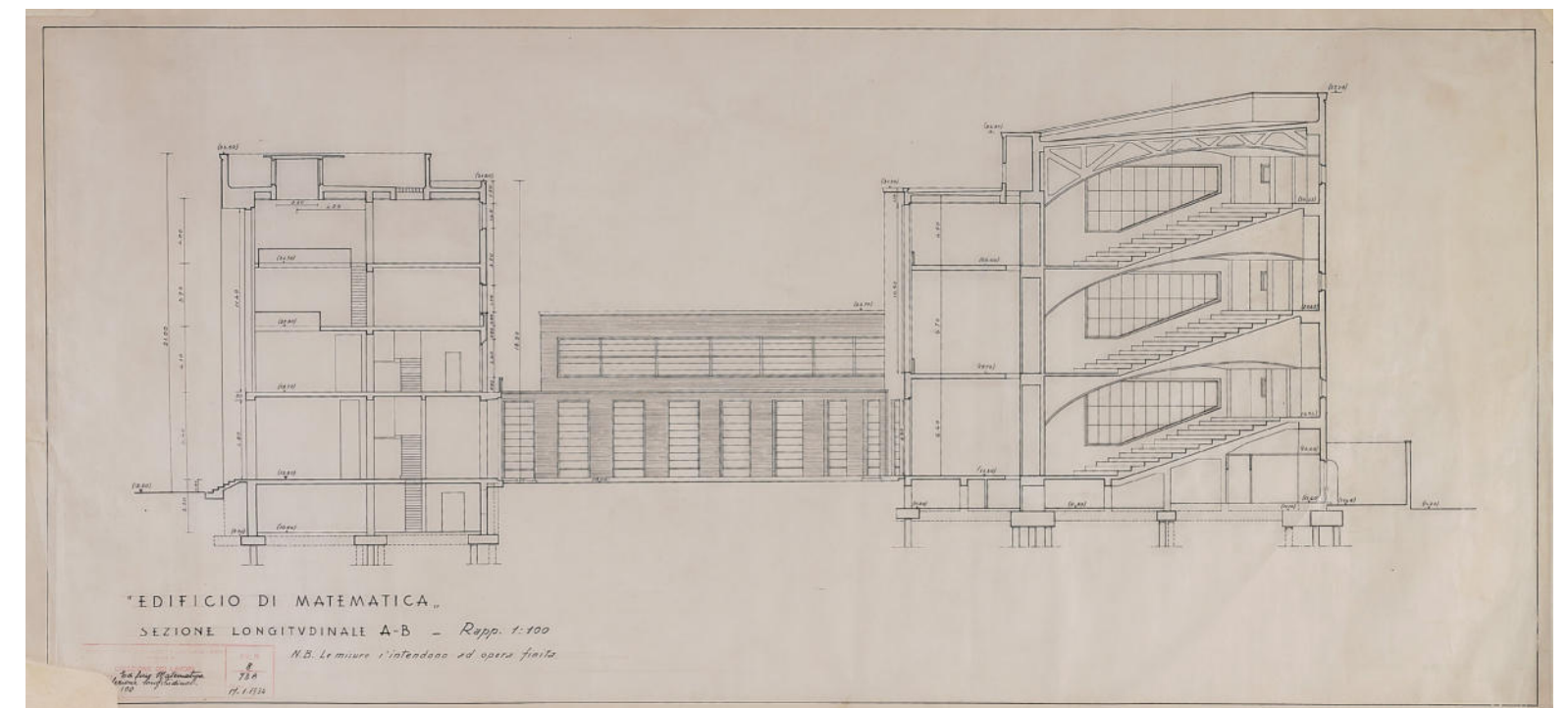
A little less than three years later, a rather substantial part of the building- the second floor of the curved west wing- was assigned to the National Institute for Higher Mathematics (IndAM). This assignment was requested by Francesco Severi, one of the most famous mathematicians of his age, very close to Mussolini, and so influential he could allocate this distinguished venue within the School’s premises to the newly-established institute. In many ways this initial alteration to Ponti’s project undoubtedly subverted the functionality, harmony, and balance of the building. Despite this turn of events, this very first addition should be

considered ‘historical’, and should therefore not be removed.

The history of the country also undoubtedly influenced the way in which the building was used; remember that the campus was bombed, occupied by Nazi military forces, then by the Allies, and finally returned to its academics in the Spring of 1945. It is interesting to note that Sapienza’s yearbooks⁸, drafted annually from 1934 onwards, continue to be seamlessly published⁹. Yearly issues were initially interrupted during World War II and then began again, albeit purged of any reference to fascist propaganda, which was instead very frequent in the years prior to the war. Archival documents reveal that the building was damaged during this period and, most of all, its furniture was mistreated and ended up in other campus buildings.

Notwithstanding the symbolic and ideological fascist content that influenced the founding of the University campus, after the war all the buildings remained in place, including the School of Mathematics. The most obvious fascist symbols were of course removed, in some cases only scraped away, and the campus restarted its activity as early as 1946. This must be emphasized in order to also underline the importance of the continuous functional use of these buildings over a period of time, especially during the darkest post-war years when the ‘uncomfortable memory’ aroused by this and other buildings was much less important than their strategic function. This also highlights the fact that use is the watershed that exists between the building’s importance, but also its worst deterioration.

Figure 4 - Longitudinal section of the front building, drafted by Ponti in January 1934; it is easy to see that he envisaged a direct link between the corridor, the professors’ lounge and the library (ASS_drw_33)



The ten post-war years- from 1946 to 1955- were dedicated to repairing the damages caused by the war and reactivating research and teaching: it wasn't long before the number of students and teachers began to steadily increase. This was true for nearly all study courses at Sapienza and in other Italian universities, but the increase was even greater for courses in Natural and Life Sciences, and especially in Mathematics and in Physics in Rome and in other major academies (Salvo 2019). The graph showing the number of students enrolled in the faculty is unequivocal.

The next two decades- from 1956 to 1975- saw numbers increase exponentially not only thanks to the social and economic boom initially enjoyed by Italy, but also to easier access to university courses by all high school students pursuant to the reform of the education system after the students' movements in 1968. This trend remained stable for years, despite the suppression and merging of many courses, first and foremost when the first two-year courses in Engineering were transferred from the Mathematics building to the School of Engineering off campus. An initial deceleration and inversion of this trend began in the Eighties and has continued steadily until just recently.

According to the latest data- i.e., in 2020- there are 2,131 first-year students enrolled in courses on Mathematics, Physics, and Natural Sciences, plus another 4,418 students in the following years of those courses, for a total of 6,549. But these statistics do not reflect the number of students that actually use the School of Mathematics. As a matter of fact, the use of rooms on campus has become chaotic, depending on the greater or lesser flow of students in the many study courses proposed by the Faculty of Sciences, i.e. Mathematics, Physics and Natural Sciences. When courses are being organized for the academic year, the assignment of halls and classrooms depends on the space available: this means that students enrolled in other courses may easily be present in the School of Mathematics, even if they are not students of Mathematics.

In 2019, for example, the tiered lecture halls in the Tower- some of the very few that can accommodate up to 435 students (in compliance with fire escape regulations) in the Faculty of Sciences- have been assigned to first-year Biology courses which need the space due to an unexpected increase in the number of enrolled students. This complicates the reassignment of the classes and use of the building, forcing a yearly revision of where the courses can be held.

The library, instead, is a case apart. Variation in the numbers of students and professors has only indirectly influenced its functional organization because the number of employees has remained much the same: from two in the Thirties- the director and one assistant - to a maximum of five in the Nineties, and a current average of four.

Unlike the increase in the number of students, attendance in the library has not grown proportionally. The fact that 'paper' books are available is not linked to the study of Mathematics, since scientific progress is now published chiefly online or in scientific reviews rather than in traditional books. Attendance in the library is certainly steady, but this is mainly due to the fact that students are always searching for a place to study. The original reading halls in the library overlooking the courtyard have therefore been assigned to students, but have been separated from the main reading hall by plugging doors and corridors. In the past the library has also been used for more unusual events, such as theatrical performances, assemblies, and special ceremonies, including the kick-off of this research awarded by The Getty Foundation.

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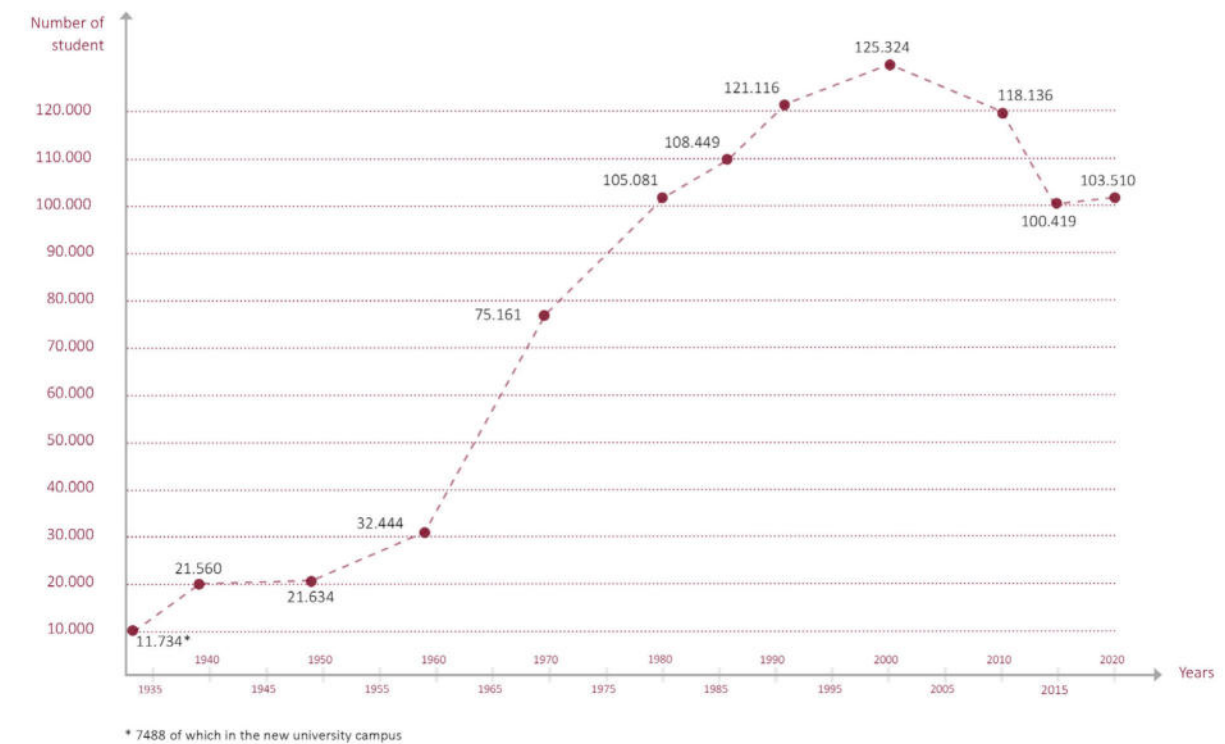


Figure 5 - Students enrolled at Sapienza University from 1935 to the present day (© Salvo 2020)

MATHEMATICAL RESEARCH, TEACHING METHODS AND PONTI'S FURNITURE

A Mathematician- either an academic, student, researcher, or professor- needs a blackboard, while a Geometry teacher needs a drawing table. This must have been very clear to Ponti as he began to design the building and its interiors, especially the furniture; and it is still true today, although technological instruments have changed the tools and their location. Ponti's specific focus on the design and details of the blackboards and drawing tables is part of his general approach to architecture considered as Gesamtkunstwerk, a rule that influences his architectural work and is embodied by the School of Mathematics- an early, true masterpiece.

Research on the building's furniture has shown that the design of the interiors and furnishings were a significant part of Ponti's commitment and a rather complicated aspect of the construction process both technically and economically. Most of Ponti's solutions regarding the furnishings are 'embedded' in the architectural design of the space, sometimes with strict reference to the systems (heating and lighting).

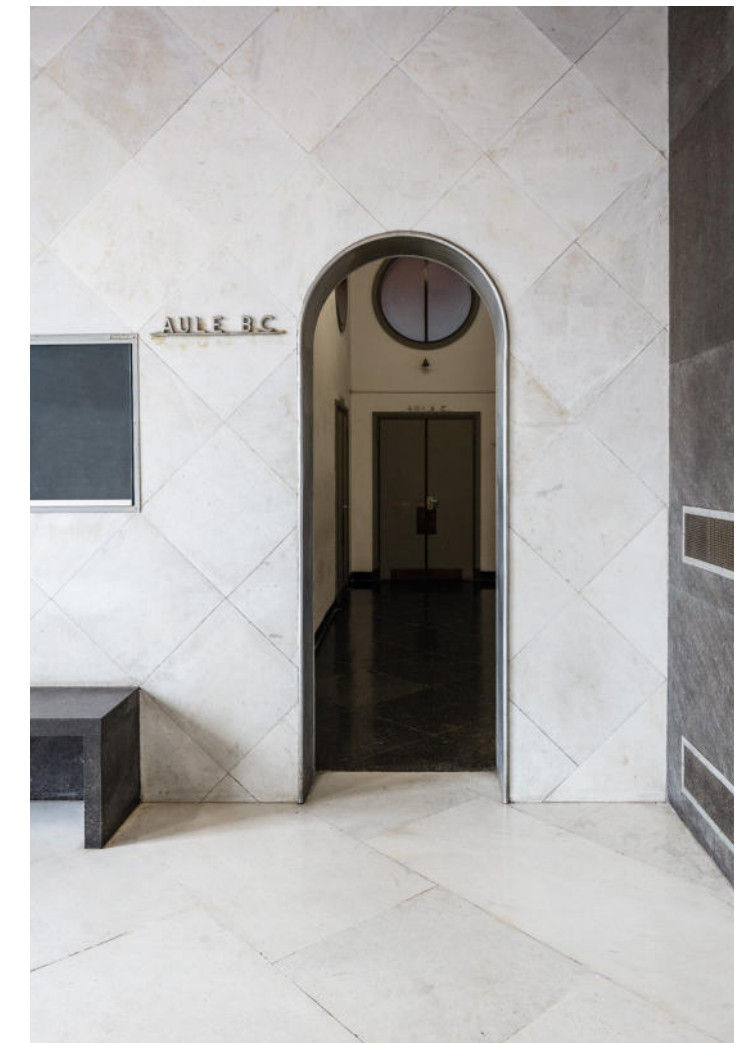
One good example is the study tables in the main reading room of the library incorporating the heating system and designed to be located right under the skylight since this is the only source of natural light in the room; another is the huge blackboards on the rear wall of the tiered lecture halls; the blackboard / teacher's desk / footboard / and an 'exclusive' entrance door for professors are rolled into one: a prototype of contemporary wall systems. They should all be considered 'inventions' with a special historical, artistic, and technical value, albeit mirroring an academic structure and a community of teachers and professors that has long disappeared.

Figure 6 - One of the many blackboards designed ad hoc by Ponti for each classroom and lecture hall (© Salvo 2020)

Figure 7 - Integration of architectural features, cladding, furniture, and finishings in a corner of the main entrance hall (© Sardo 2021)

The strong hierarchy between the academic staff, the separation of spaces between students and teachers, and the use of traditional slate blackboards and chalk are all aspects that have gradually been replaced by a much more integrated academic community, by informal relationships between students and professors, and by the use of technological hardware and

software. This is of course true in any academic environment, but has strongly impacted the design of classrooms and halls in a very delicate and refined environment such as that of the School of Mathematics where everything was meticulously designed by Ponti, "from the spoon to the city".



MATHEMATICS FOR MATHEMATICIANS, PHYSICISTS, ARCHITECTS, AND ENGINEERS

The School of Mathematics originally hosted not only students in mathematics in the Faculty of Sciences, which included Mathematics, Physics and Natural Sciences, but also students of the School of Architecture (Dall'Aglio, Emmer, Menghini, 2001)¹⁴ and students enrolled in the first two years of the course in Engineering¹⁵. For decades it was also home to the Institute of Drawing, where drawing and descriptive geometry were taught in the drawing halls located in the curved wings, tailor-designed for drawing sessions.

In 1961 the course in Mathematics and Physics was gradually eliminated until it was no longer taught in 1969; however, this did not affect the general increase in the number of enrolled students. In 1961, the first two-year courses in Engineering also began to move from the School of Mathematics to the School of Engineering; the process was completed in 1976, but there is no precise indication as to when exactly the students of Engineering left the building.

In the Sixties the Institute of Drawing also started to downsize¹⁶ as this discipline was slowly absorbed by the School of Architecture. Available data ends in 1963; we know that its directors were Vincenzo Fasolo (since 1934) followed by Giulio Pediconi in 1955 who continued until the Institute was closed. However, a Geometry and Drawing course for Mathematicians was still active up to 1960. Although these events did not determine a decrease in the number of students and professors, they were probably compensated by an increase in the number of students in Mathematics.

After the Institute of Drawing was no longer present in the building, and students in Mathematics grew in number, another setback occurred: the drawing halls in the curved east wing were divided up (in 1939 Francesco Severi had already turned the halls in the west wing into the Institute of Higher Mathematics). This is also reflected by a change in the names of the

courses for mathematicians: “Analytical geometry and elements of projective and descriptive geometry, and drawing” was simplified to “Geometry I” and “Geometry II”, while “Rational Mechanics and Drawing” in 1960 simply became “Rational Mechanics”, reflecting the fact that the Institute was no longer present.



Figure 8 - Rows of curved desks in the tiered lecture hall on the second floor of the classroom Tower (© Salvo 2021)

STUDENTS, TEACHERS, STAFF, 1935-2021

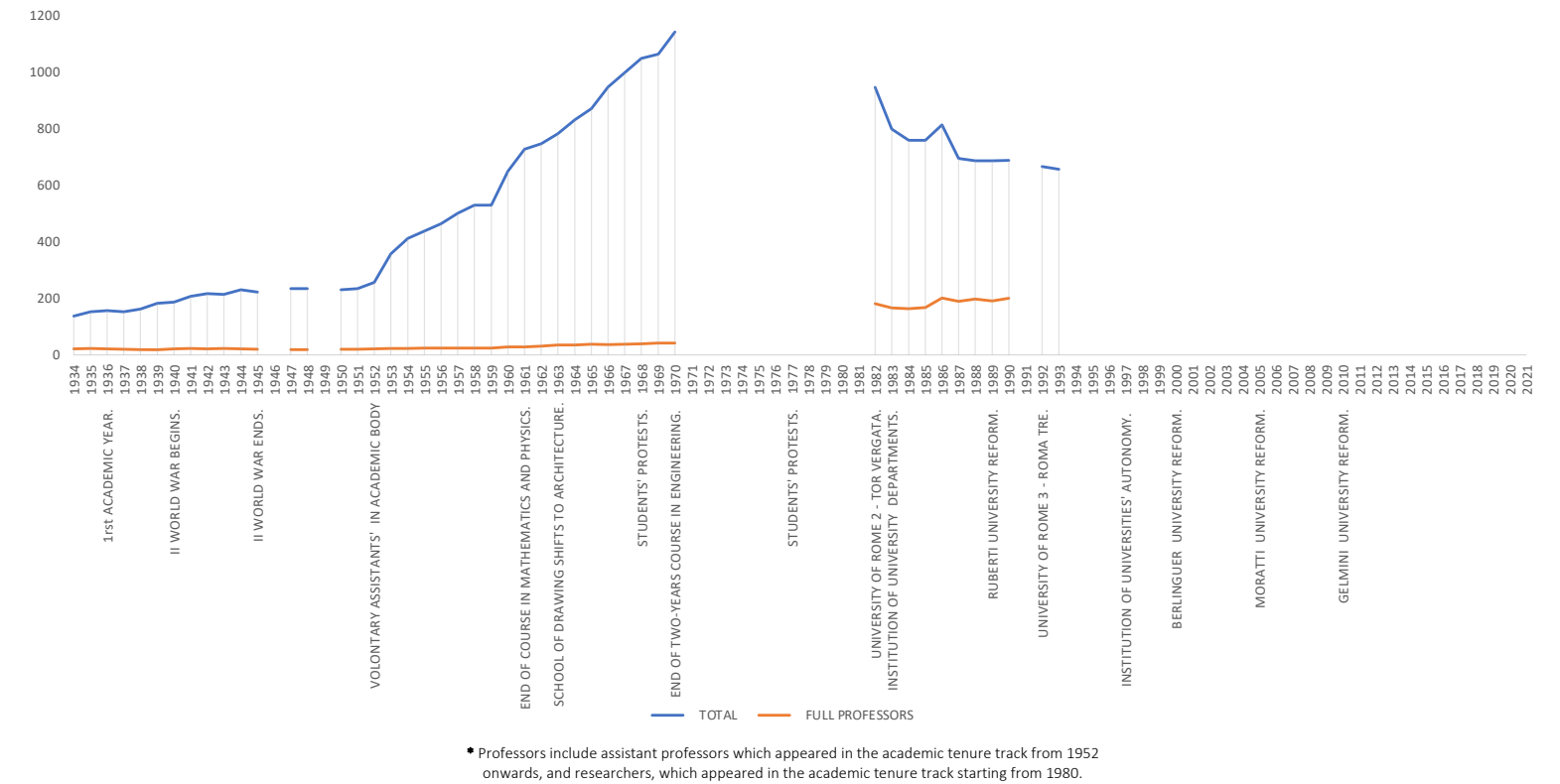
The exponential increase in the numbers of students and professors has undoubtedly impacted the conservation of the building and the preservation of its original configuration. Although this is true for all the campus buildings in Rome's university, analyzing the relationship between the enrollment trends relative to the Faculty of Sciences, and the continuous search for space that characterized the period from 1965 to 1985, has been crucial in order to establish the changes made to the building, and accurately assess their authenticity and significance.

Graphs and charts provide evidence of the dramatic increase in numbers that marked the central decades of the XX century. Archival documentation and the frantic correspondence between the Directors of the Department of Mathematics, the Dean of the Faculty of Sciences, and the Rector, emphasize the lack of space for teaching and research. However, when reviewing these statistics, one should consider that the numbers refer to all the students enrolled in Natural Sciences courses- Physics, Mathematics and Natural Sciences- as well as several changes that are hard to detect and extrapolate; for example, the evolution of academic careers, changes in study courses, etc. This means that a more than accurate calculation of the number of students and professors at any given date is practically impossible, although the general trend is unequivocal.

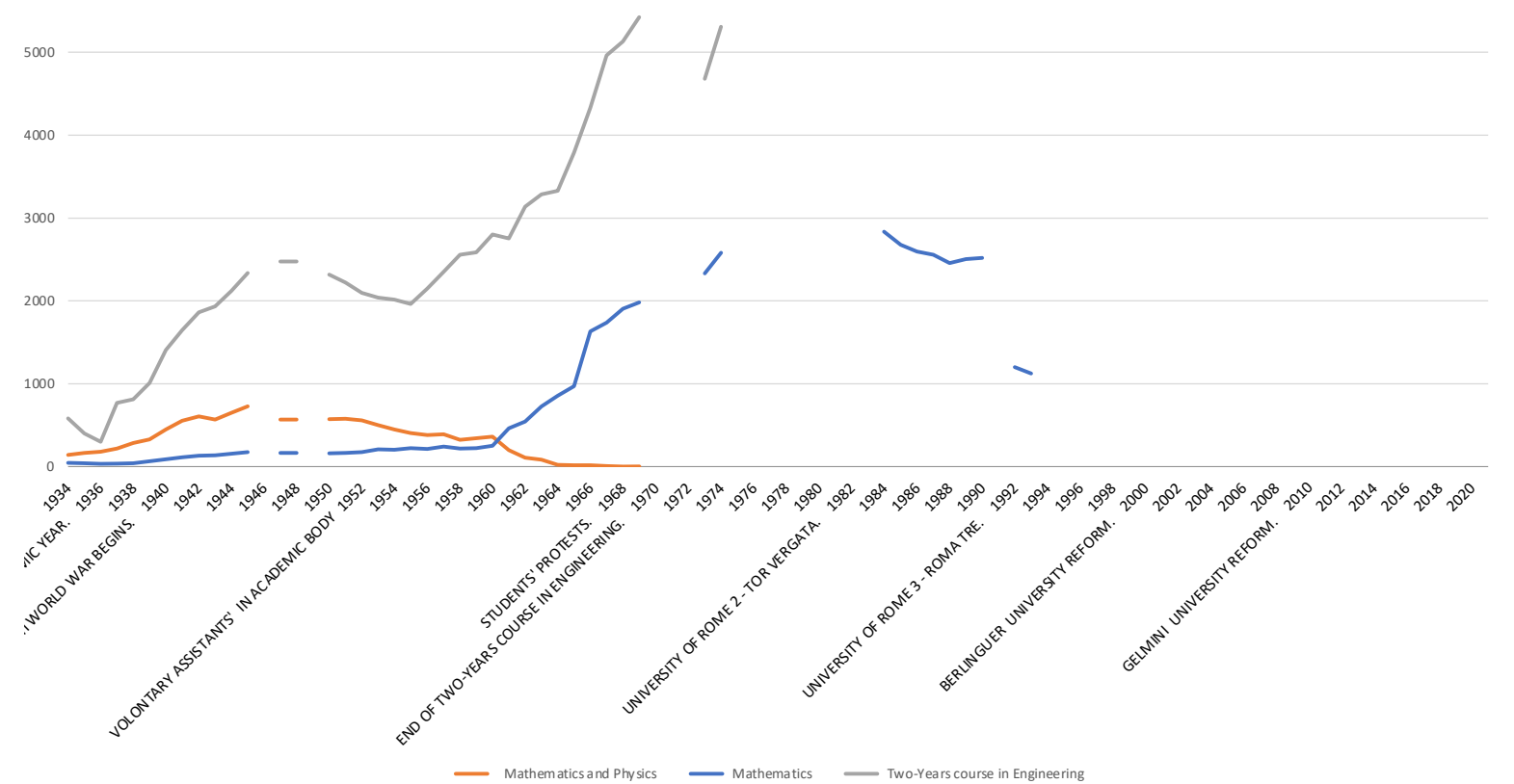
The situation was such that two other premises were rented so courses could be held: the so called 'via Vicenza' and the Wuhrer building. This increase was implemented at a time when in 1983 the Departments were newly designed, at national level, as official and administrative academic institutions; it also mirrors the founding of Rome's second university "Tor Vergata" in 1982, and Rome's third university "Roma Tre" in 1992.

Figure 9 - Statistical study of the number of academics in the Sciences Course (© Castellan 2020)

Figure 10 - Statistical investigation on the number of students in the School of Mathematics (© Castellan 2020)



Professors include assistant professors which appeared in the academic tenure track from 1952 onwards, and researchers, which appeared in the academic tenure track starting from 1980.



The overcrowding of the building and the changes in its functions, especially in the curved wings, inevitably affected the heating, electrical, fire safety, and communications systems. Without a general plan the upgrading, compliance, and updating of the wiring, ducts, cables, and machinery was performed piece-meal, rather than based on a strategic conservative approach. The result was an invasive presence of bundles of cables along corridors and in offices, as well as the unprepared installation of technical devices in classrooms and halls to allow the use of technological equipment especially during the pandemic (i.e. digital screens, video cameras, computers, etc.)

Yet one key consideration is that almost no demolition has occurred since 1939. This is true of most Italian buildings built during that period which are often unrecognizable due to the bundling of additions, and not due to demolition or destruction. This is to be deemed positive in terms of conservation of authenticity; it also makes it possible to reinstate the original condition by accurately and gradually removing the insignificant additions, at least ideally.



Figure 11 - Front building, first floor, bundling of cables, ducts, and wiring in the office corridor (© Sardo 2021)

MEMORIES: INTERVIEWS WITH PROFESSORS EMERITUS, ACADEMICS, SPECIALISTS, AND ORDINARY PEOPLE

One commonly shared opinion within Sapienza's academic body, especially by mathematicians and architects, is that the School of Mathematics is a true gem, and that its library is probably the most interesting interior not only on campus, but probably throughout all modern Italian university buildings. This opinion is certainly based on many individuals' sensitivity, on the presence of old photographs, and certainly on a cliché; as a result, many people appreciate the building, but without having personally experienced the architectural space.

For this reason, and to revive the personal memories of those who have used the building in the past, as well as provide scientific evidence of the trend of growing appreciation for the building, we conducted a series of interviews that have proved enlightening for several reasons. We have collected memories, experiences, opinions, knowledge, and information from different sources, starting with those who are more acquainted with Gio Ponti: Fulvio Irace; experts in the field of Architectural Modernism in Italy, such as Giorgio Ciucci and Alessandra Muntoni; experts in contemporary Italian arts, such as Antonella Greco; those who met him and shared his everyday life, such as his nephews Salvatore Licitra and Alberto Rosselli; those responsible for the Department of Mathematics, the former director Vincenzo Nesi and the current director Isabeau Birindelli; and those who live and deal with the building every day: the porter Paolo Mariani and the caretaker Beniamino Iezzi. Specific insight into the microcosm of the library was possible thanks to the memories and input by the former and current directors, Maria Rosaria Del Ciello and Lucilla Vespucci.

A very interesting view of the cultural context that inspired Ponti's project for the School of Mathematics is provided by Enrico Rogora's studies and Michele Emmer's research on the relationship between art and

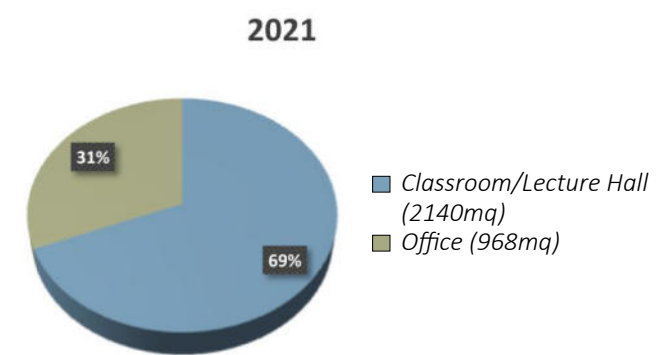
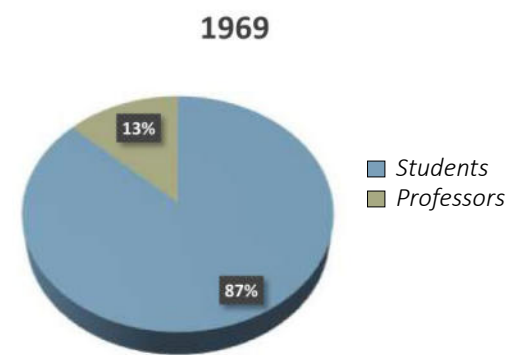
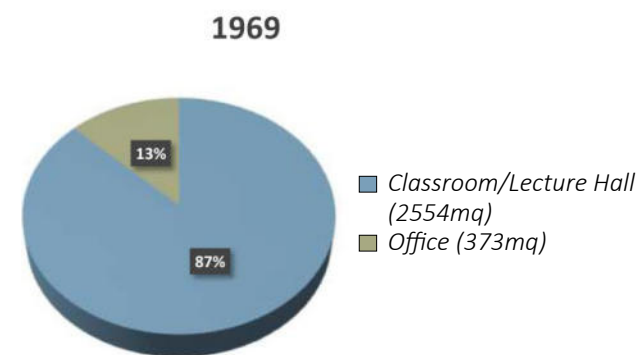
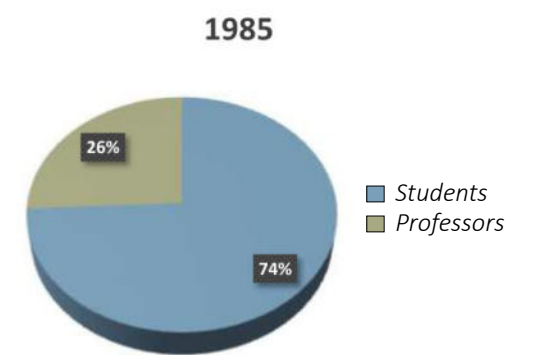
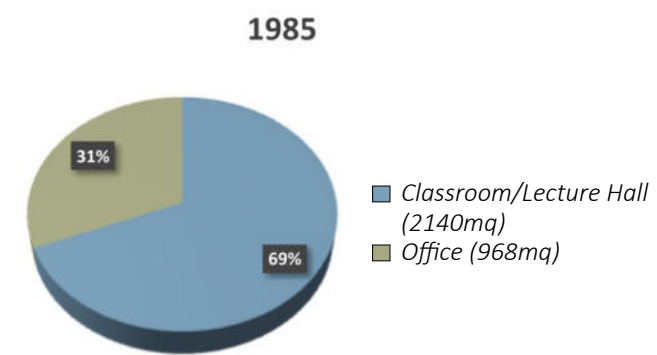
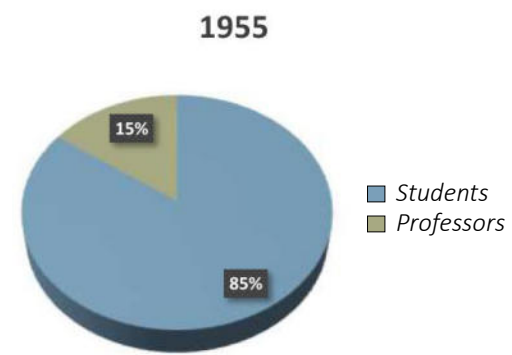
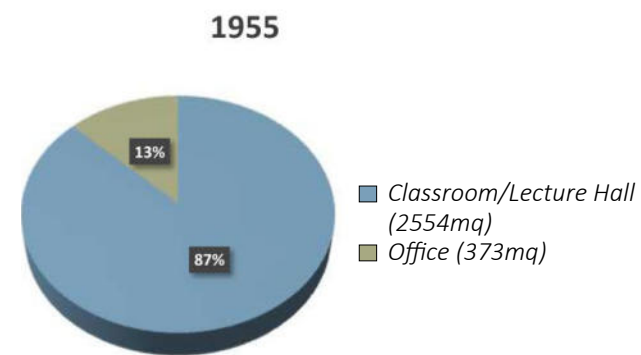
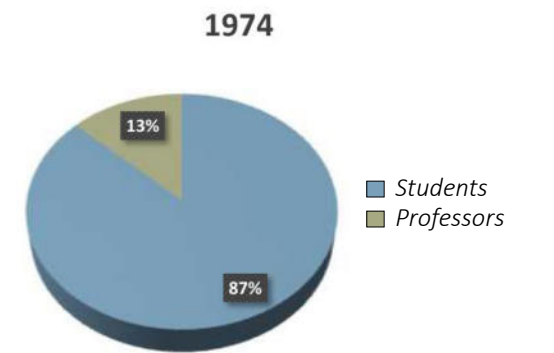
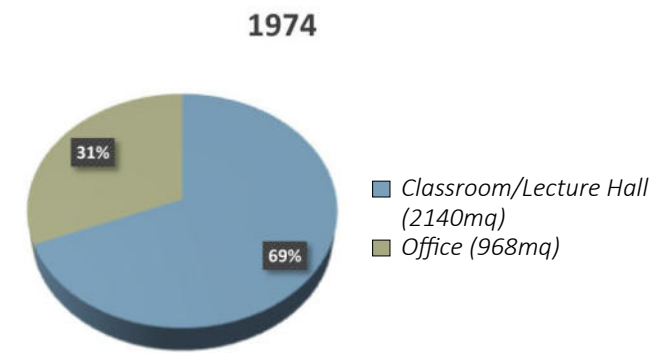
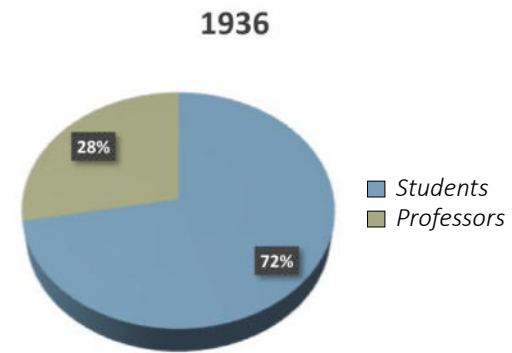
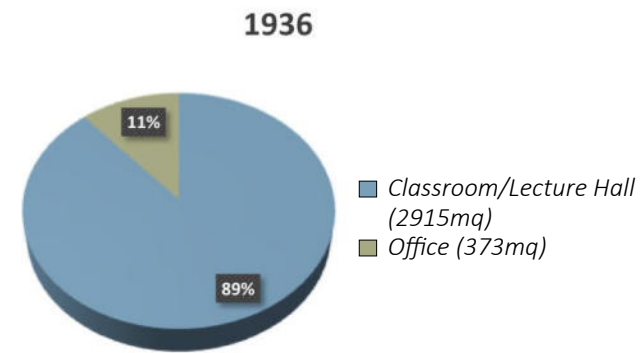
mathematics, both focusing on this building. Afterwards we interviewed people who were key figures in the past history of the building and who could tell us stories that have never been recorded, neither in archives, nor in old photographs. They include: famous alumni of the Department of Mathematics- Claudio Procesi, Lamberti, Silvana Abeasis, Lamberto Lamberti – and Bruno Bozzetti, a former employee of Sapienza's Technical Office.

The idea to broaden the scope of our study from the building to the University campus was supported by Carla Onesti, director of the Sapienza Historical Archive; it was also prompted by a desire to achieve specific insight into the geology of the site. This was crucially important in order to assess major structural and seismic risks for the building, data provided by geologist Lamberto Lambiase.

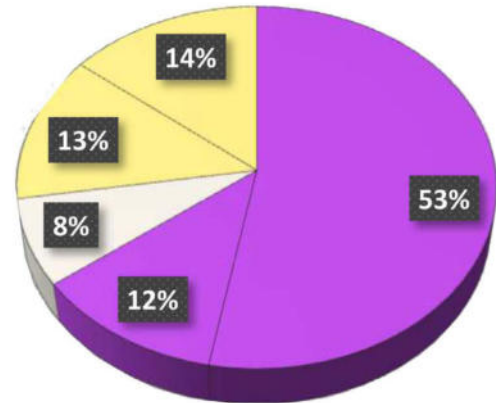
Given the culture of restoration that reigns in Italy and the role of conservation management planning, we had a very rewarding discussion with Pietro Petrarola about conservation issues, with a special focus on the restoration of Ponti's major works.



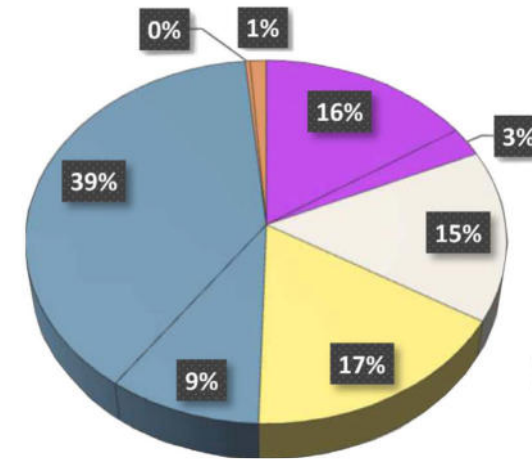
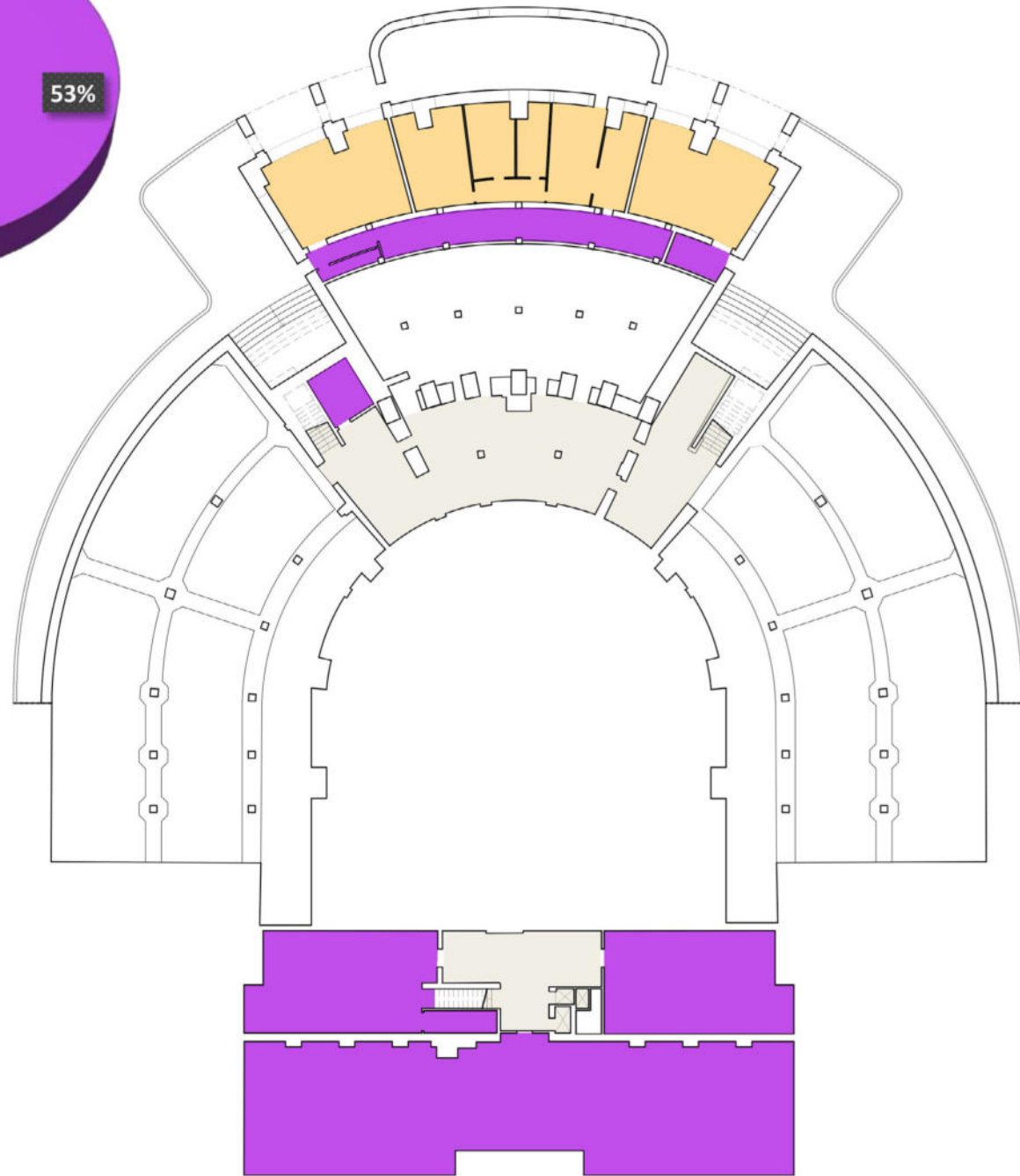
Figure 12 - Chairs in the library (© Salvo 2020)



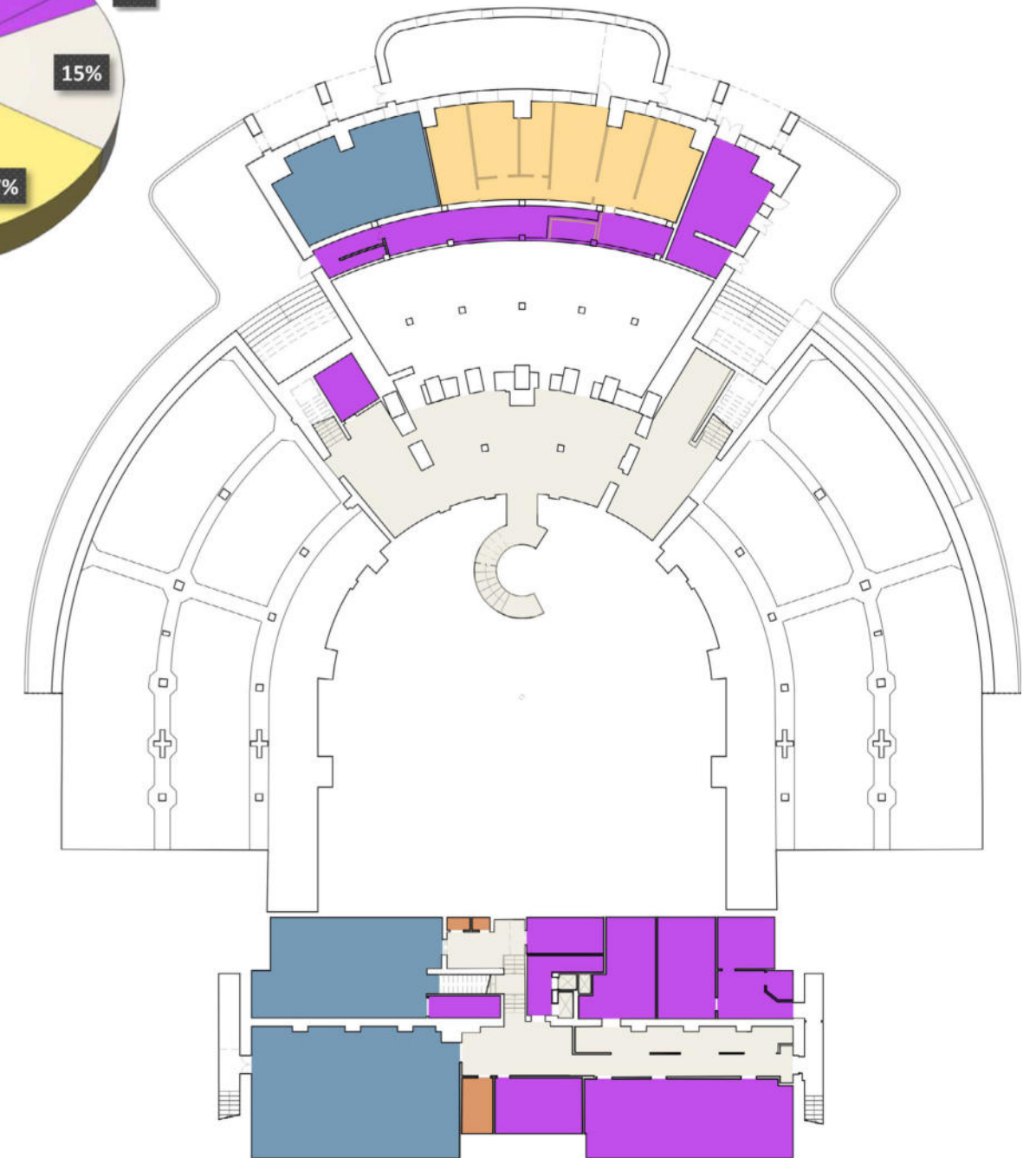
Comparison between the number of users (professors and students) and square meters destined to research (offices) and teaching (classrooms), from 1936 to today; information has been retrieved on statistical data, archival documentation and direct survey (© Castellan, Cortesi, Salvo 2020)



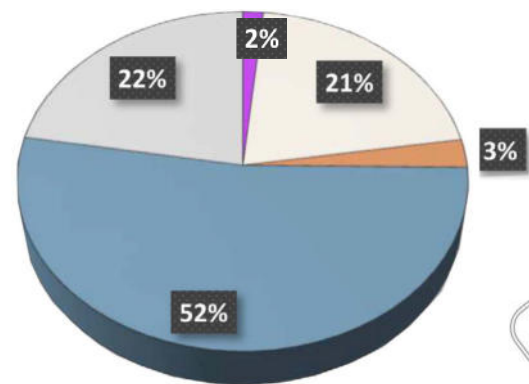
- Storage room (348mq)
- Equipment room (77mq)
- Distribution (51mq)
- Caretaker's house (87mq)
- Garage (94mq)



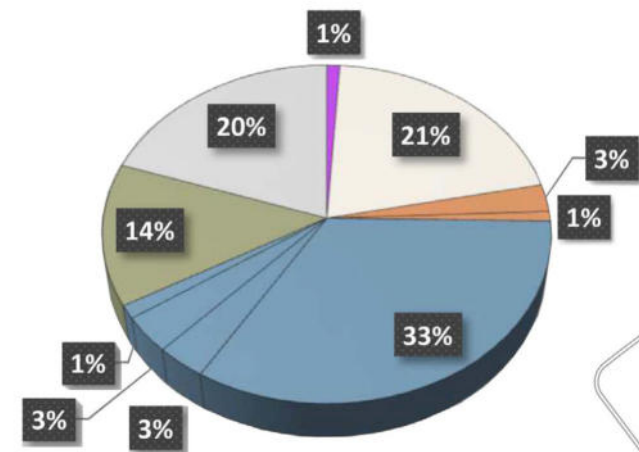
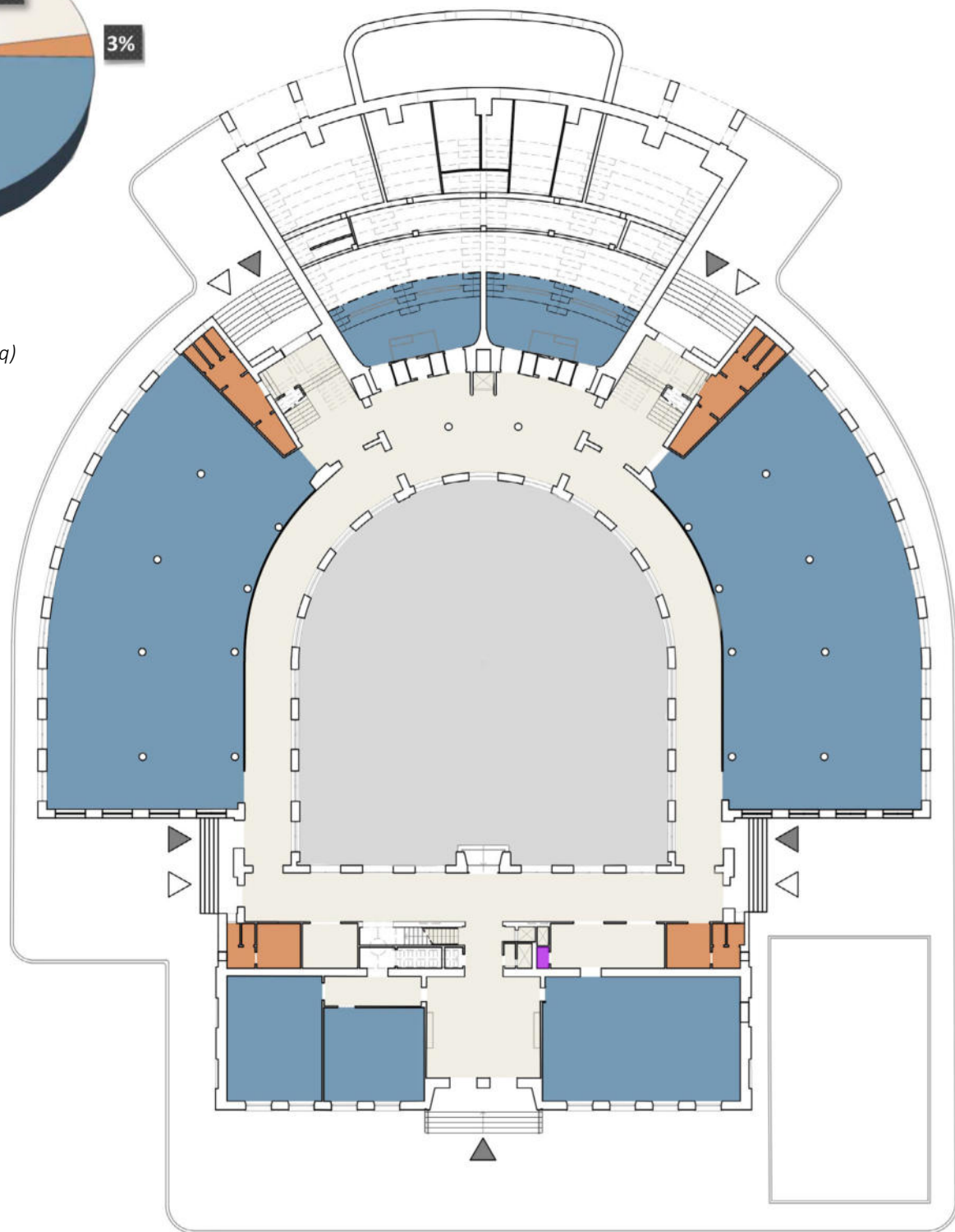
- Storage room (348mq)
- Equipment room (77mq)
- Distribution (51mq)
- Caretaker's house (87mq)
- Doctorate hall (55mq)
- Calculation laboratory (226mq)
- Restrooms (2mq)
- Infirmary (7mq)



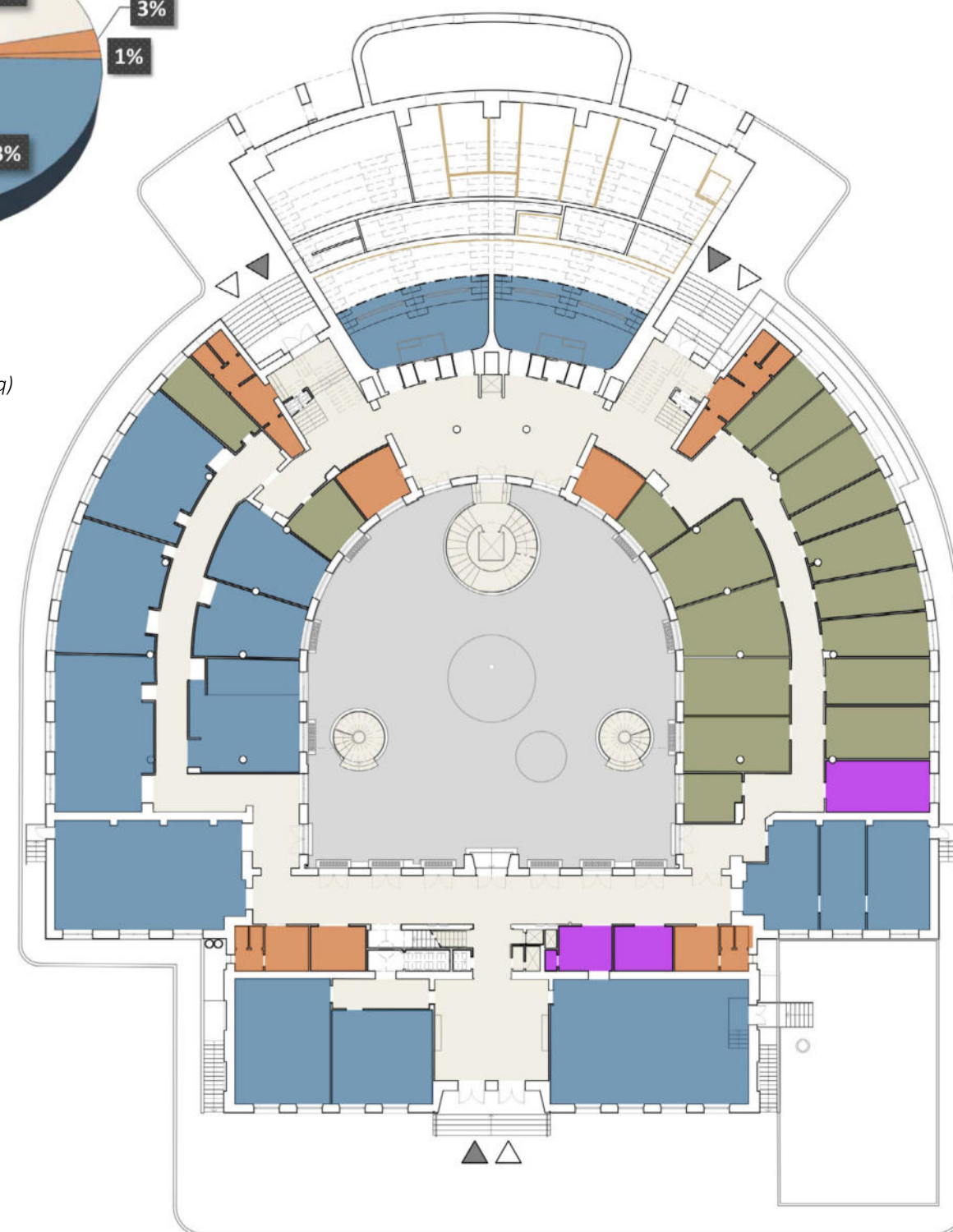
1935-2021
Basement floor



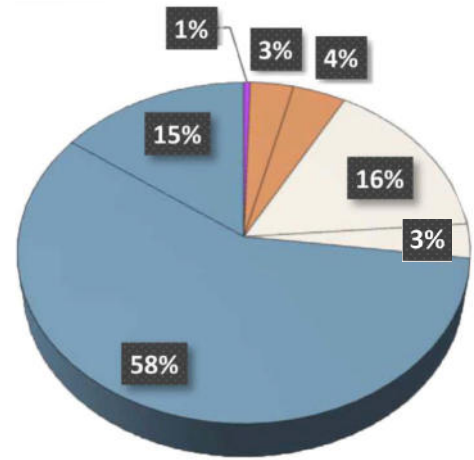
- Storage room (41,6mq)
- Distribution (543mq)
- Restrooms (70mq)
- Classroom/Lecture Hall (1365mq)
- Courtyard (580mq)



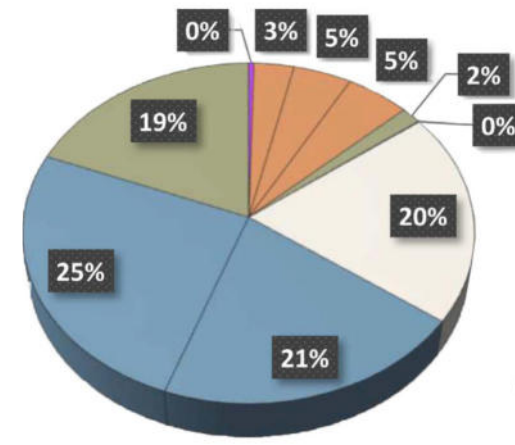
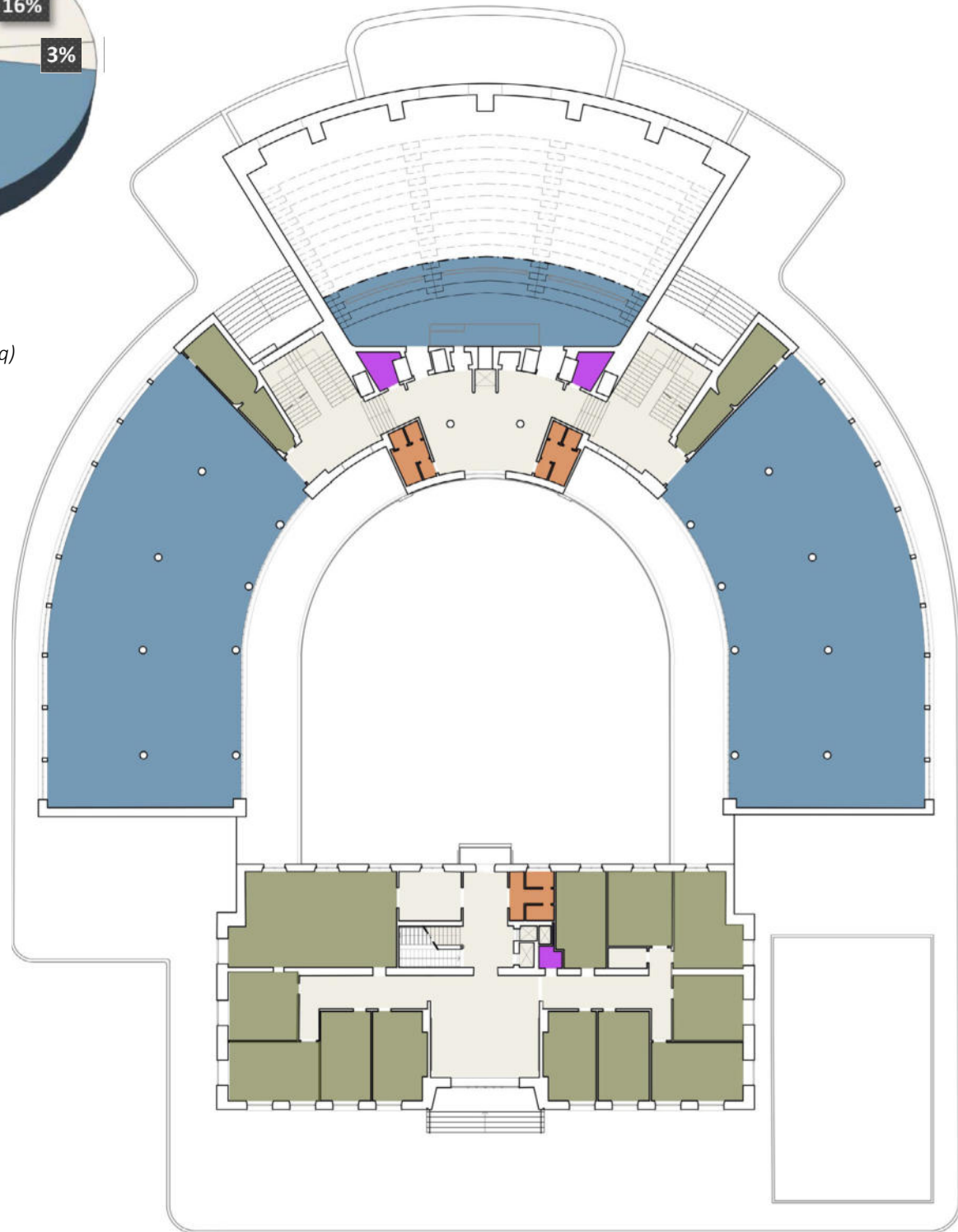
- Storage room (27mq)
- Distribution (552mq)
- Restrooms (70mq)
- Reception (24mq)
- Classroom/Lecture Hall (892mq)
- Calculation laboratory (87mq)
- Study Hall (7mq)
- Doctorate Hall (33mq)
- Office (362mq)
- Courtyard (527mq)



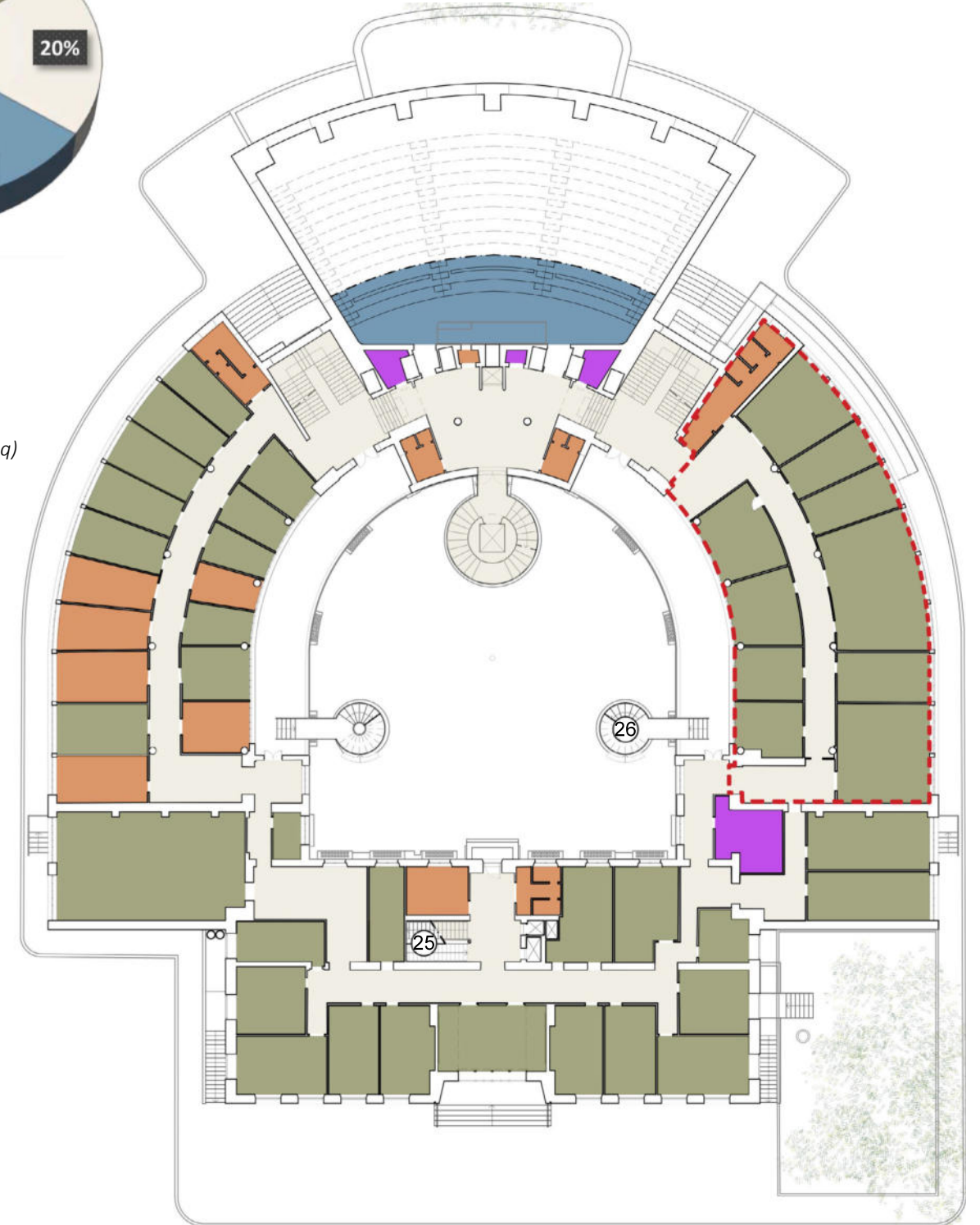
1935-2021
Ground floor



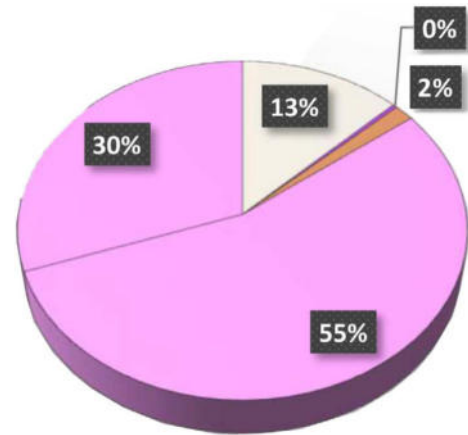
- Storage room (41,6mq)
- Distribution (543mq)
- Restrooms (70mq)
- Classroom/Lecture Hall (1365mq)
- Courtyard (580mq)



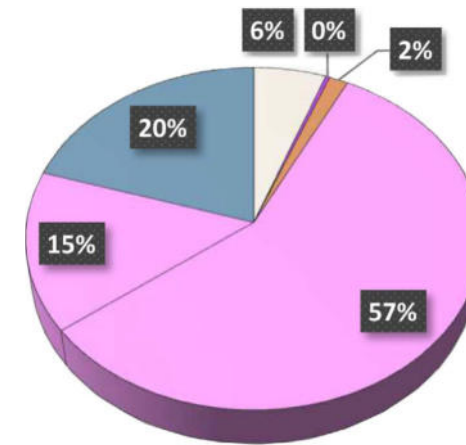
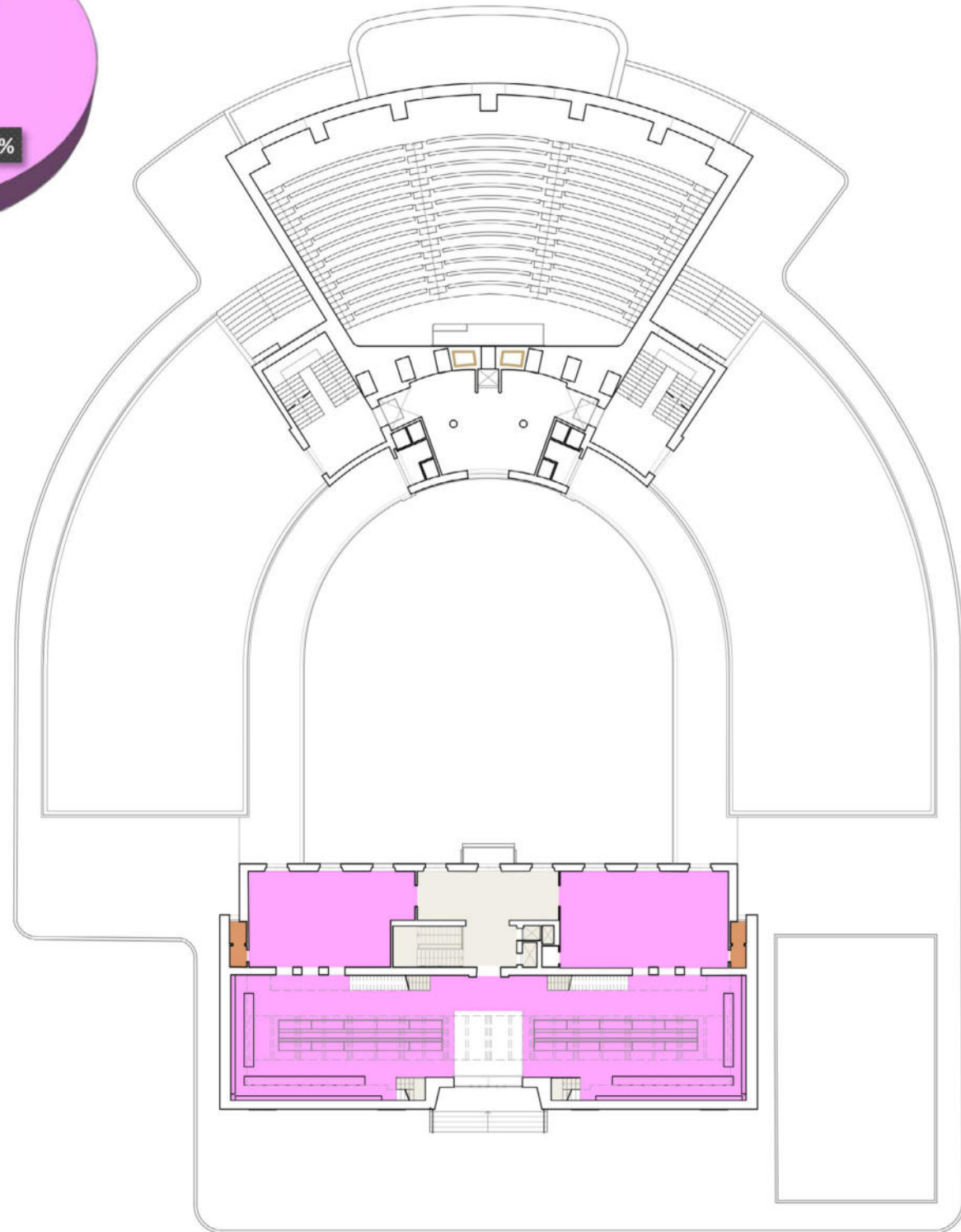
- Equipment room (8,2mq)
- Restrooms (63mq)
- Board room (92mq)
- Administration (101mq)
- Ponti Hall (32mq)
- Infirmary (1,2mq)
- Distribution (405mq)
- Classroom /Lecture Hall (414mq)
- Office (514mq)
- National Institute for Higher Mathematics (381mq)



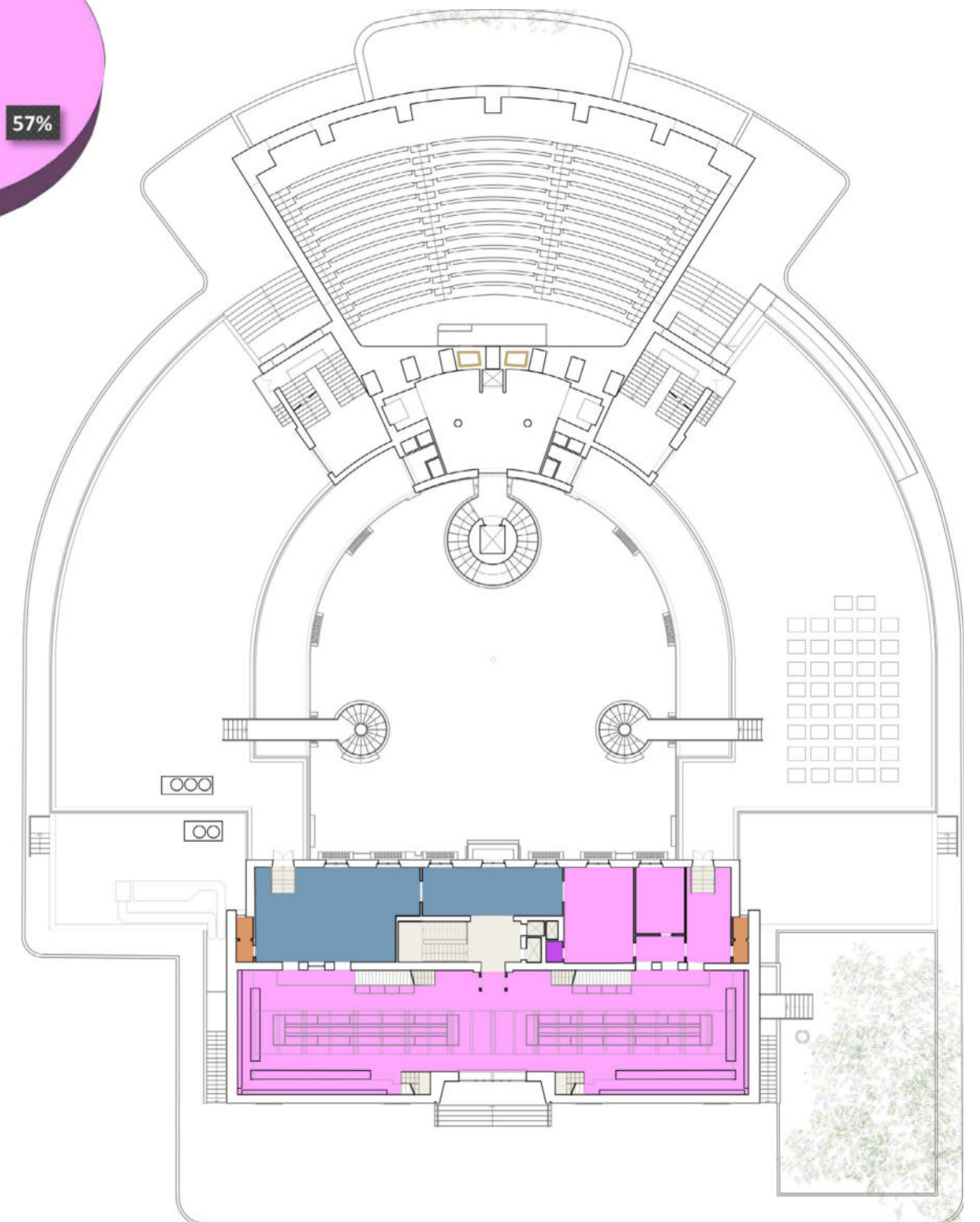
1935-2021
First floor



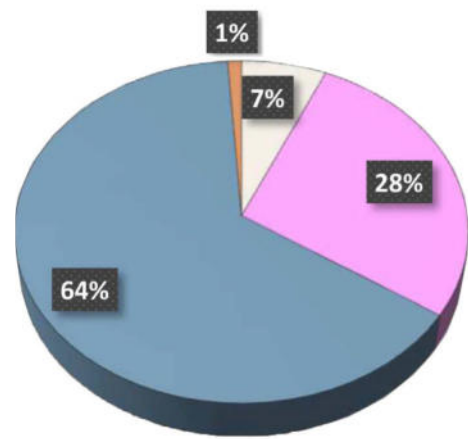
- Distribution (57,6mq)
- Equipement Room (1,5mq)
- Restrooms
- Reading room/Library (248mq)
- Reading room (137mq)



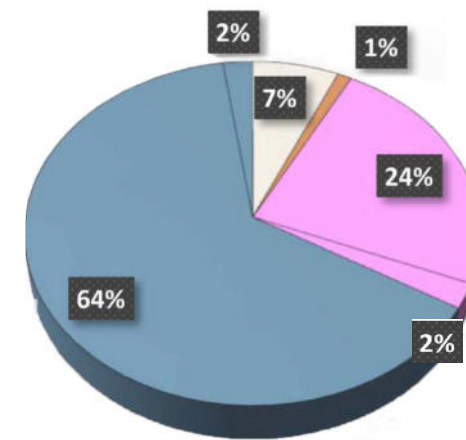
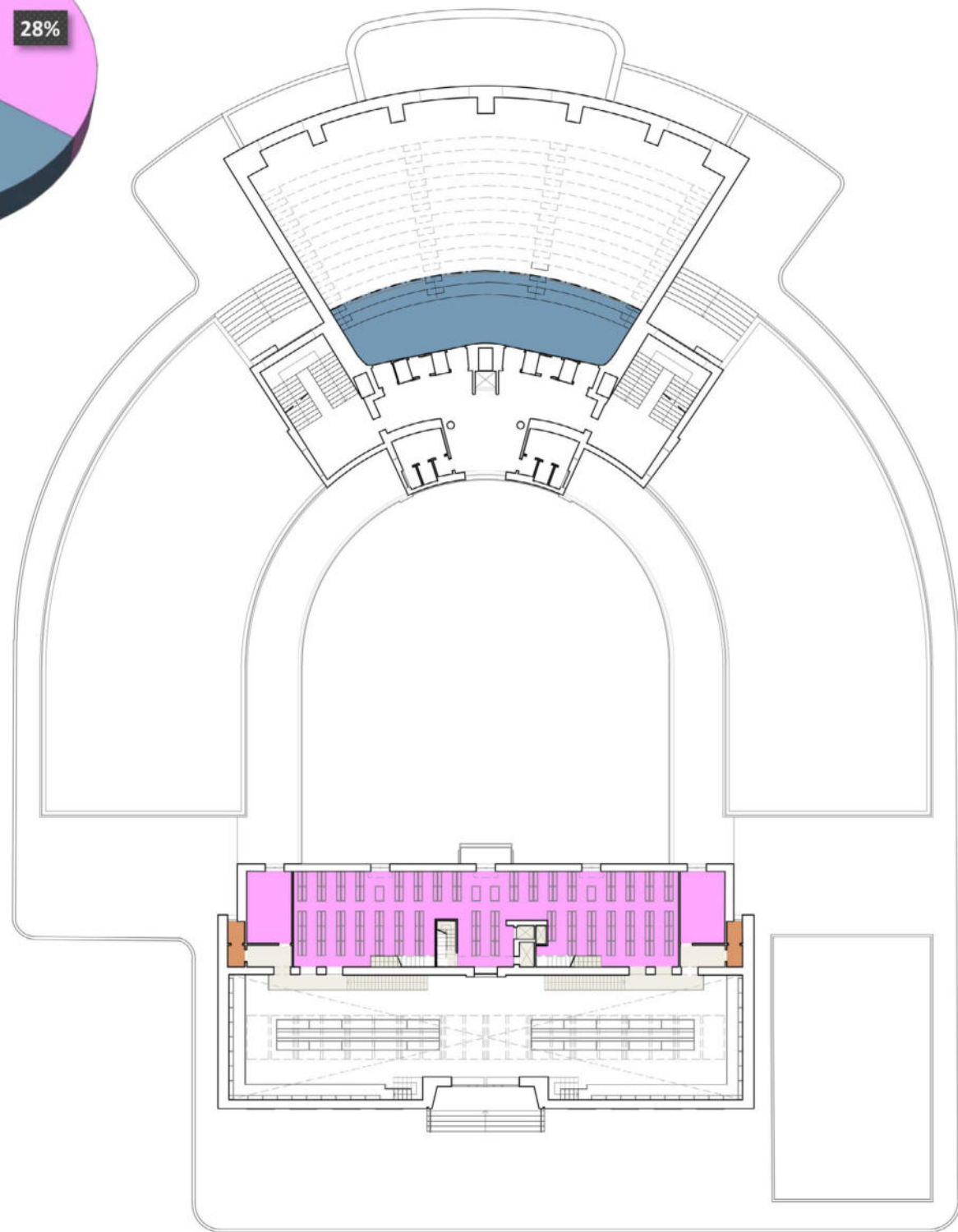
- Distribution (27mq)
- Equipment room (1,5mq)
- Restrooms
- Reading room/Library (273mq)
- Office (72mq)
- Study hall (96mq)



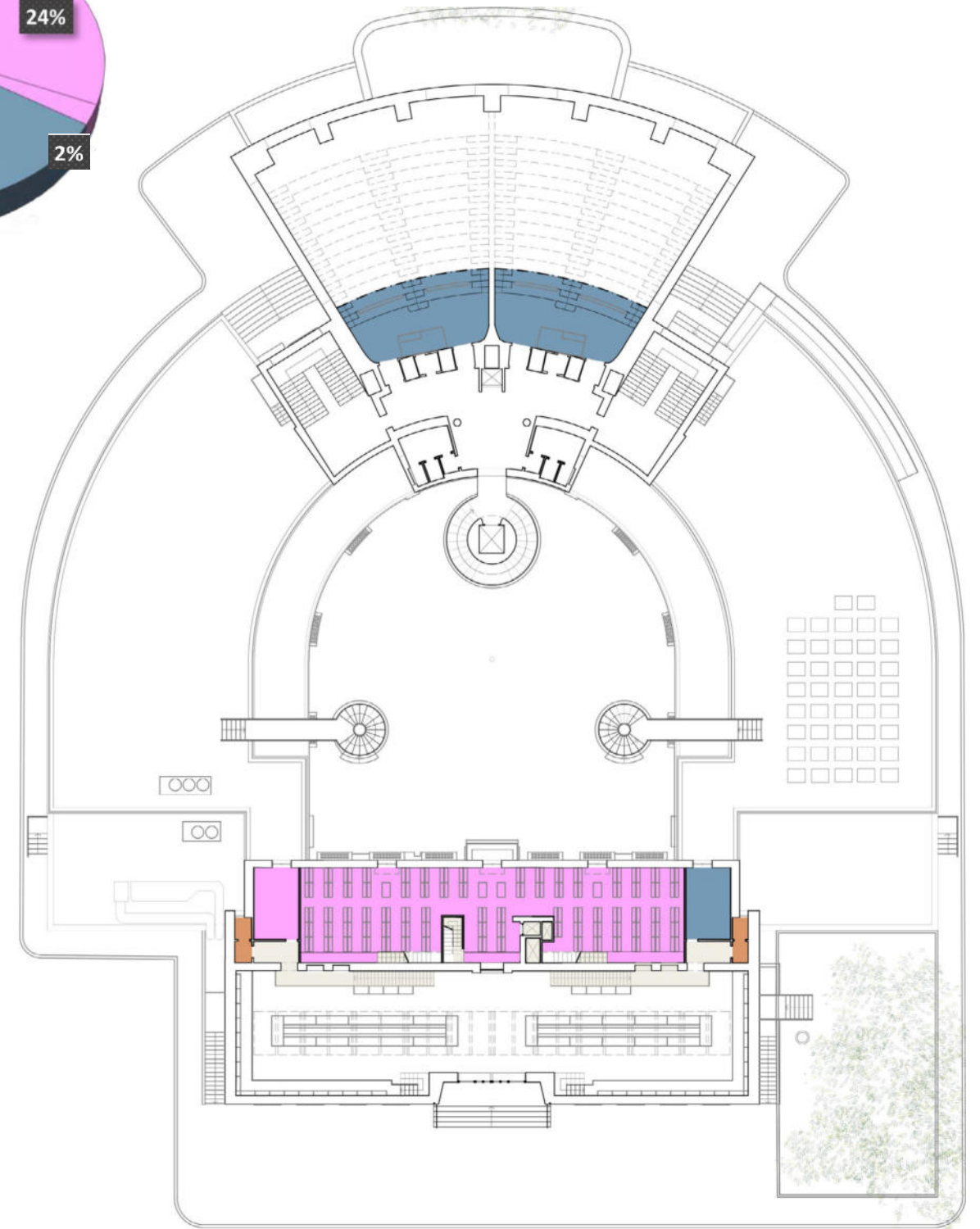
1935-2021
Second floor



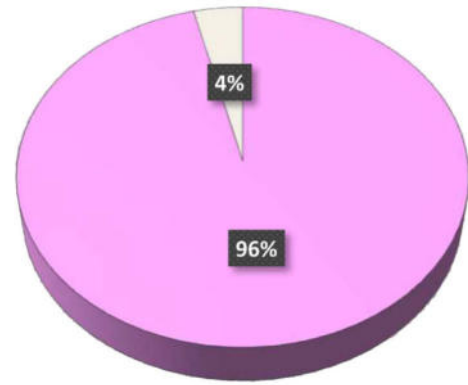
- Distribution (43mq)
- Book depository (180mq)
- Lecture hall (418mq)
- Restrooms (7mq)



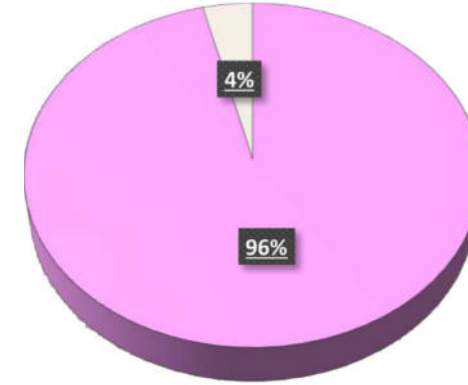
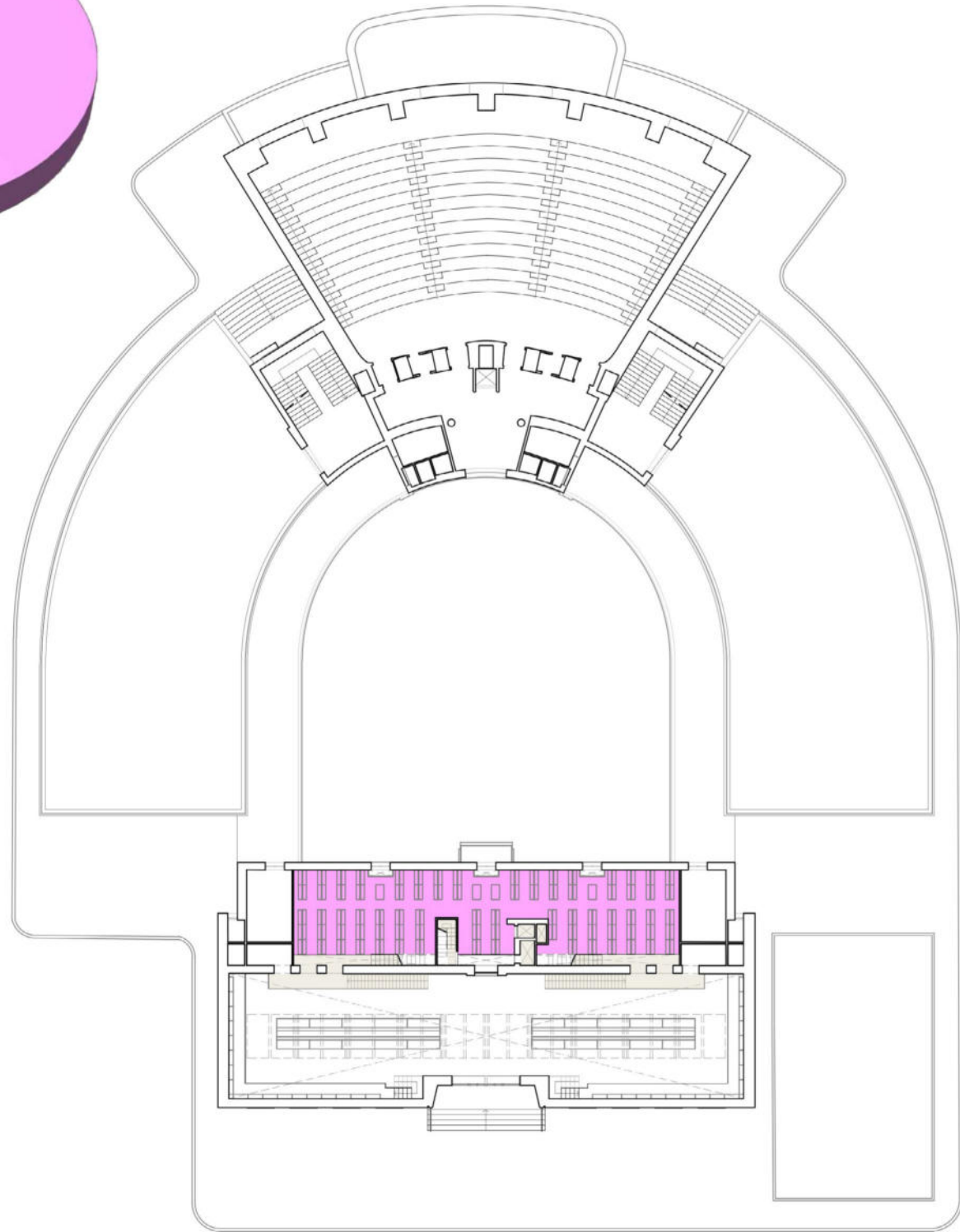
- Distribution (43mq)
- Restrooms (7mq)
- Book depository (150mq)
- Ancient books (15mq)
- Lecture hall (412mq)
- Multimedia hall (14,8mq)



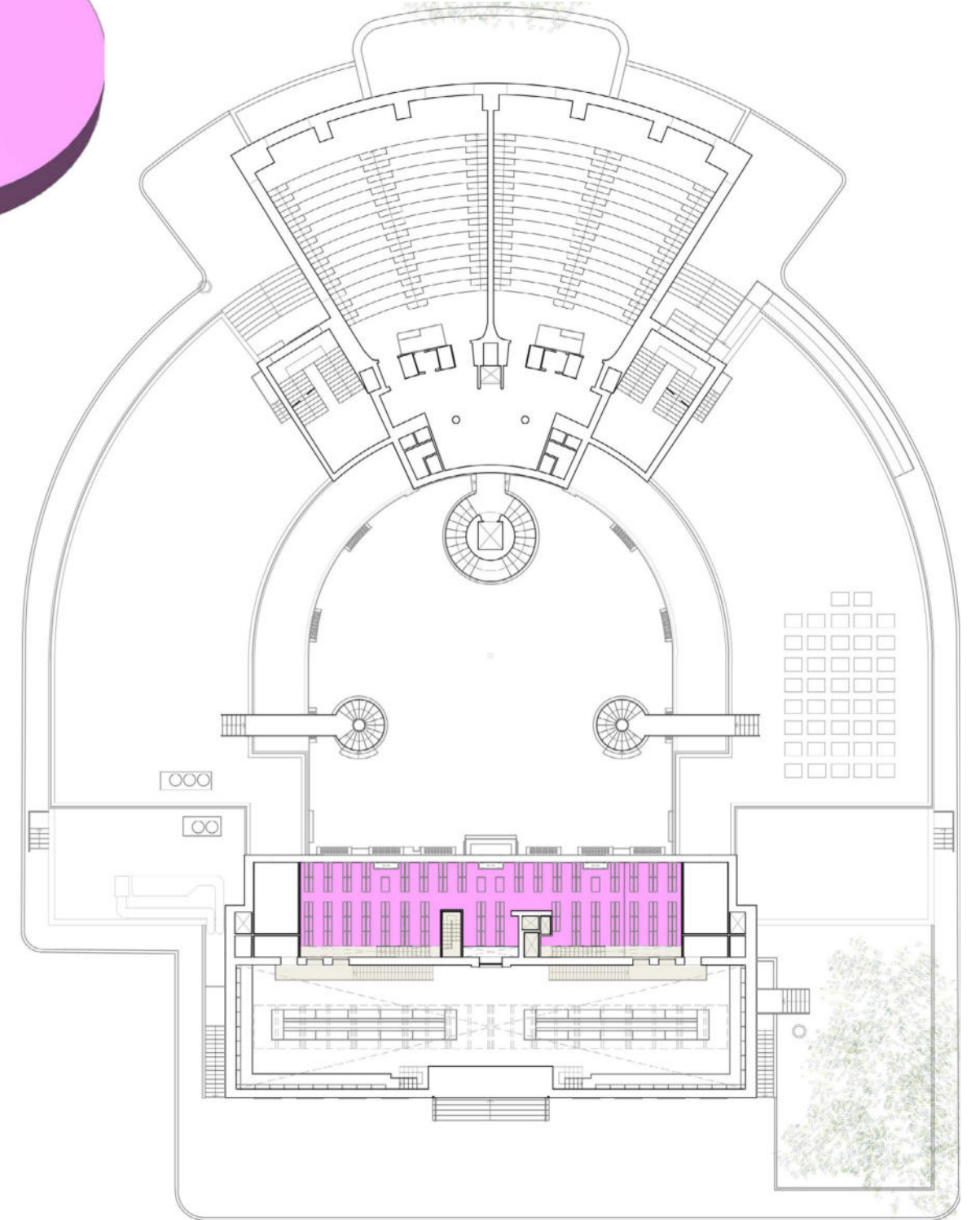
1935-2021
Third floor



■ Book depository (150mq)
■ Distribution (6mq)



■ Book depository (150mq)
■ Distribution (6mq)



1935-2021
Fourth floor

NOTES

1. ASS, CERUR, b. 44, fasc. 378; ASS_dcm_08
2. The building designed in 1928 was much smaller; it had one meeting hall with 100 seats, and a second hall with 50 seats, a lounge for professors, a large room for the library with related reading rooms, another 8 to 10 rooms used not only by the professors, but also to house collections of models, presumably for geometry courses.
3. The following courses could be held in the building: Algebra, Analytical and Projective Geometry, Descriptive Geometry, Infinitesimal Analysis, Rational Mechanics, Advanced Analysis, Superior Geometry, Complementary Mathematics, Mathematical Physics, Advanced Mechanics, Probability Theory, and Differential Geometry. Other courses in mathematics such as Experimental Physics, General Chemistry, Astronomy, Geodesy, Advanced Physics, and Theoretical Physics were taught in the buildings of the Institute of Physics and Institute of Chemistry across the street.
4. The collection of books on mathematics belonged to the Royal Superior Institute of Engineering, together with the Library of the Mathematics Seminar, and that of the School of Science History. Guido Castelnuovo was already the director of the library in 1934; records show that in 1933 the collection included 41,000 volumes, 37,960 pamphlets, 253 journals, and 12,600 visitors.
5. It is interesting to note that the project drafted by the Civil Engineering Corps also included eight offices at the four corners of the quadrangular plan, on two floors, and were therefore identical in terms of position, view, and number of windows.
6. In 1940 there were 11 professors, in 1950 they increased to 24, in 1960 to 28, in 1970 to 42. When the university was reformed in the Eighties, changes in the organization of the School shuffled the cards in such a way that data does not allow us to compare numbers.
7. ASL_pht_13.
8. The name of Rome's first university has changed over the years. It was called "Studium Urbis" when it was founded in 1303 by Pope Boniface VIII, and then renamed "Sapientia" in the mid-16th century. In 1632 the name "Studium Urbis Sapientiae" became official when the institution was established in the convent of S. Ivo alla Sapienza, the premises of the university together with many other sites located in the city center. The name remained until 1870 when, with the unification of Italy under King Vittorio Emanuele II, the name was changed to "Royal University of Rome Sapienza". With the advent of fascism and the foundation of the University campus, the name "Royal University of Rome" was adopted and then dropped in 1948 when the Italian Republic was established; the name changed to a more simple "Università di Roma". Over the years, with the foundation of a second university in Rome in 1982 and then a third one in 1992, it was necessary to qualify the name "University of Rome" which, in 1982, officially became Università di Roma "La Sapienza"; the name "Sapienza University of Rome" was created in 2006, a name that coincides in all respects with the official name.
9. We found no records of the academic years 1946-1967,

1947-1948, 1949-1950, 1975-1976, and 1991-1992; they were probably not printed from 1999 to 2004; records for 1982-1984 do not report statistics concerning the number of students who attended the Department of Mathematics; records for 1973 to 1975 do not show statistics concerning the number of professors; records for 1970-1973, 1976-1982 and 1994 to the present day do not report any statistics at all. From 2014 onwards, records only show the number of students enrolled each year, more or less 200 students per year.

10. Law n. 910/1969 liberalized access to universities by eliminating the constraints imposed by the 'Gentile Reform' (1923) that required a 'Classical' High School diploma - a traditional five-year diploma with courses in ancient Latin and Greek - as mandatory in order to enroll in university.

11. See the many chapters dedicated in this book to the study and survey of the interiors by Flaminia Bardati, with Chiara Turco.

12. Obviously, the big stained glass window on the main façade, corresponding to the triple height of the library's main reading room, was not meant to let light into the hall as the pieces of glass were all very dark and the window faced north, so very little light entered the room. The real source of light was the skylight and the side windows.

13. This should be taken into due consideration especially in view of compliance to safety regulations since doorways, corridors, and entrances are the first to be damaged and compromised by alterations.

14. Mathematics was, and still is, a key course as regards degrees in Mathematics, Mathematics and Physics, Engineering, and Architecture.

15. The first two-year courses in Engineering held in the School of Mathematics were: Mathematical Analysis I and II, Analytical Geometry and Descriptive Geometry, Rational Mechanics, and Drawing I and II.

16. The relationship between the School of Mathematics and the School of Architecture has lasted to the present day. Since it was founded, and up to the Fifties, the Royal Superior School of Architecture in Rome included courses in mathematical analysis, descriptive geometry, and applications of descriptive geometry, all taught by mathematicians on the premises of the School of Mathematics, together with students enrolled in the first two years of Engineering.

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