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Meridian Polytechnicians. The *Scuola di Milano* at Pompeii

Abstract

The 1926 educational trip to Naples and its surroundings represented a significant shift from the original project outlined by Camillo Boito. This trip involved some students and recent graduates from Politecnico di Milano who, after the Second World War, became prominent figures of the *Scuola di Milano*. Boito's project focused on learning from historical examples, mainly Lombard Romanesque architecture, which was expected to naturally develop into a new architectural style that could embody the entrepreneurial spirit and values of the emerging Italian Nation.

The notebooks and photos from that journey, on the other hand, recount the stages of an exploratory process that led participants to discover an archetypal Mediterranean classicism as a tangible alternative to the nineteenth-century city and architecture.

Keywords

Educational trip — Politecnico di Milano — Pompeii — Italian Rationalism

Polytechnic culture and educational trips

Ever since the establishment of the Regio Politecnico di Milano in 1863, the educational trip has played a vital role in the teaching approach, motivated by the belief in the value and importance of direct contact with the most innovative examples in the field of infrastructures, industrial plants, and constructions for training student engineers (AA.VV. 1981; Buratti and Selvafolta 2013). Such teaching practice was also advertised, primarily in the institutional communication section “Effemeridi”, included annually in the *Programma del Regio Politecnico*. It was also disseminated more widely through articles in popular newspapers and a comprehensive series of technical-scientific journals that flourished at the time, such as «Il Politecnico» or «Il Giornale dell’Ingegnere-Architetto ed Agronomo». The aim was to demonstrate the practical influence of polytechnic training in promoting the new entrepreneurial spirit that was ready to revitalise Italy at the turn of the nineteenth and twentieth centuries. The focus “on the new”, strongly aimed at action, resulted in favouring construction sites as destinations. Such propensity was also transferred to the trips organised for the course for student architects activated in 1865, where this practice was received and further enhanced in an institutional form, assigning it a properly pedagogical role, as «a true complement to the courses from 1911 to 1941» (Lori 1941, p. 81) «in the belief that only direct contact with the manifestations of nature could foster an active and responsible design culture» (Selvafolta 2008, p. 119).

In the context of Boito's historicist culture, the focus on an operational dimension led to prioritising sites where significant restoration efforts were actively ongoing. This began with the visits organised in 1867 by Boito

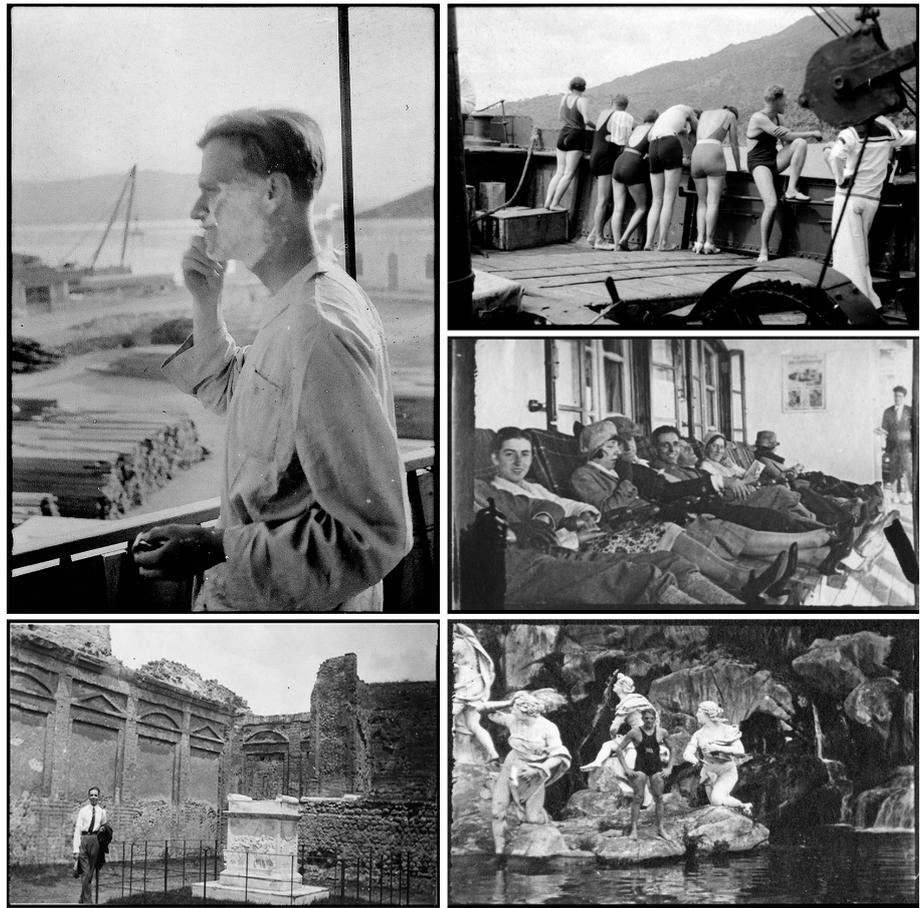


Fig. 1

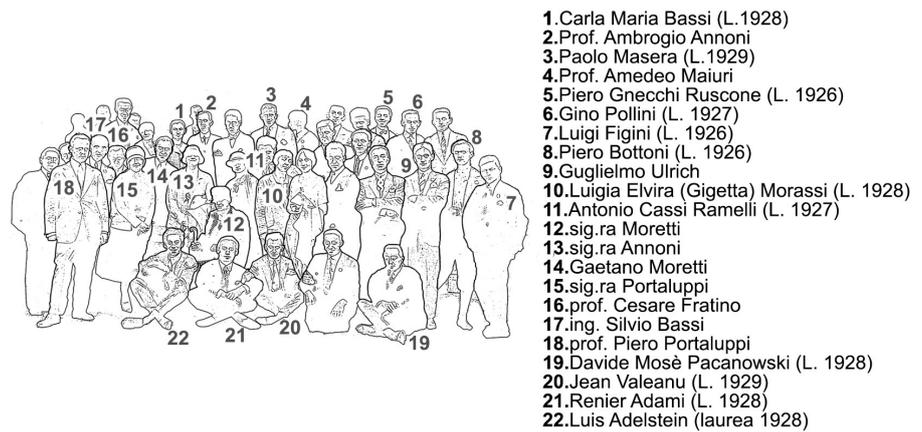
Photographs from the 1926 journey (APB, photographic collection) depict playful moments during the crossing on the *Biancamano*, as well as ancient sites and buildings that inspired the drive towards modernity. Included are also the first two female Polytechnic architects, who graduated in 1928.

himself to the restoration of the churches of Sant'Abbondio in Como and San Michele in Pavia, then extended to locations in Padua, Pomposa Ferrara. After Boito stopped teaching at the Politecnico, there were two visits (in 1908 and 1912) to the reconstruction works by Gaetano Moretti on the bell tower of San Marco in Venice and the sites in Ravenna directed by Corrado Ricci, visited in 1908 and 1914.

Even when the destination of the journey was Rome, the itineraries allocated limited time to classical remains, guiding student architects to explore the origins and development of Italian medieval art in the ancient Christian basilicas. Modernity, however, was not neglected, with visits to the new government and ministerial buildings then under construction, intended to exemplify the new national style.

The educational trip to Naples and its surroundings in July 1926 marked a radical shift in the selection of trip destinations. Regrettably, the Politecnico's historical archives lack any record of this journey¹, although its organisation – which involved a large group of students and teachers, sometimes accompanied by their wives – must have required considerable effort and financial resources, as testified by the extensive photographic documentation available at the APB-Archivio Piero Bottoni, Dastu-Politecnico di Milano². The trip occurred in July 1926, on the Genoa-Naples segment of the Genoa-New York route, aboard the luxurious steamship *Conte Biancamano*, launched the previous November with interiors designed and decorated by Luigi Coppedè.

For the return journey from Naples to Genoa, the Politecnico delegation travelled on the equally comfortable *Duilio*, the first transatlantic liner built entirely in Italy, in service since 1923 on the same route.



1. Carla Maria Bassi (L. 1928)
2. Prof. Ambrogio Annoni
3. Paolo Maserà (L. 1929)
4. Prof. Amedeo Maiuri
5. Piero Gneccchi Ruscone (L. 1926)
6. Gino Pollini (L. 1927)
7. Luigi Figini (L. 1926)
8. Piero Bottoni (L. 1926)
9. Guglielmo Ulrich
10. Luigia Elvira (Gigetta) Morassi (L. 1928)
11. Antonio Cassi Ramelli (L. 1927)
12. sig.ra Moretti
13. sig.ra Annoni
14. Gaetano Moretti
15. sig.ra Portaluppi
16. prof. Cesare Fratino
17. ing. Silvio Bassi
18. prof. Piero Portaluppi
19. Davide Mosè Pacanowski (L. 1928)
20. Jean Valeanu (L. 1929)
21. Renier Adami (L. 1928)
22. Luis Adelstein (laurea 1928)



Fig. 2

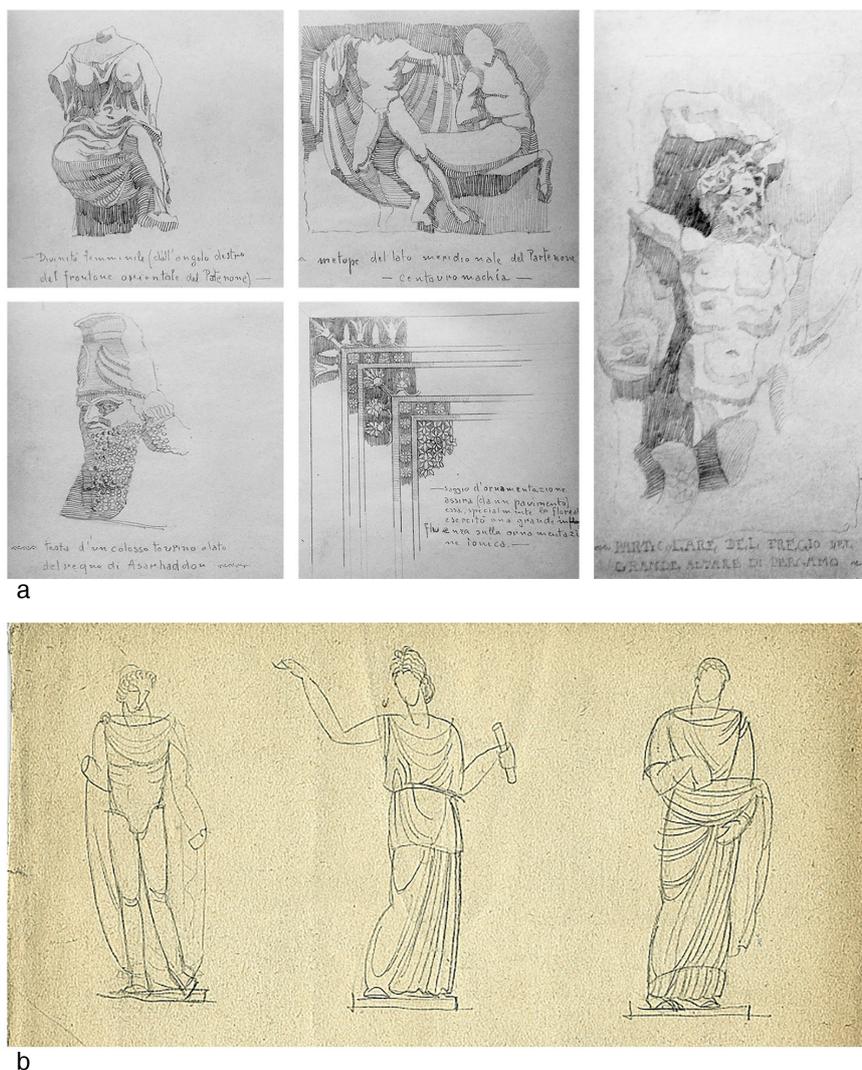
Group photograph taken during the 1926 trip to Naples and its surroundings (APB, photographic collection), with the names of 22 students and lecturers listed among the 45 participants.

The lack of archival material prevents us from determining the overall duration of the trip; however, some handwritten annotations by Piero Bottoni on the back of his photographs (preserved in the APB photographic collection), however record *6-14 July 1926 Gita d'istruzione a Napoli e dintorni* (6-14 July 1926 Educational trip to Naples and surroundings).

Numerous photos were taken from the *Conte Biancamano* to capture the beauty of the coasts and seascapes, as well as of shared everyday life and playful moments. Even more numerous are the shots of the visited places: Naples, the Amalfi coast, the excavations of Pompeii, and the Royal Palace of Caserta. The abundance and content of the photographs taken on the steamer, as well as the number of places visited after disembarking, suggest that the dates noted by Bottoni correspond to disembarkation and re-embarkation at the port of Naples. Therefore, excluding navigation times, the actual tour began on 6 July 1926 and lasted nine days until re-embarkation on the *Duilio*.

Regarding the participants, by comparing the notes by Bottoni on the back of a photograph showing a group of forty-six people in the courtyard of *La Vesuviana* plant with information available at the ACL-Historical Archives and Museum Services, Politecnico di Milano, we were able to identify some teachers and sixteen of the thirty or so participating students.

Some of them, in the years following graduation, would establish themselves as leading figures in the culture of the project, which later became known as *Scuola di Milano* (Canella 2010).

**Fig. 3**

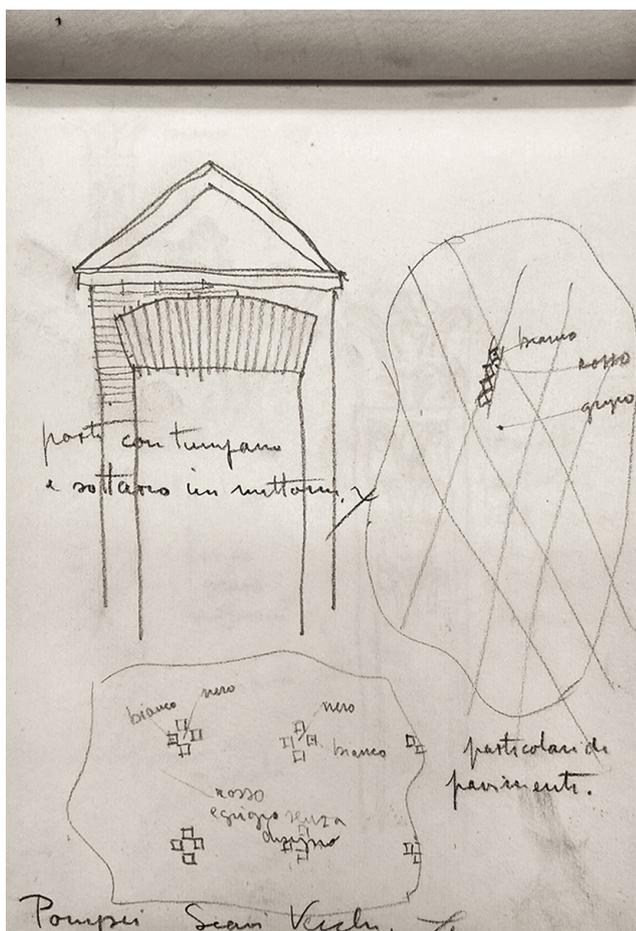
In the two-year preparatory course, student architects trained by redrawing artefacts, plastic and ornamental elements from Egyptian, Greek, and Roman architecture: a) P. Bottoni, study sketches (APB, Notebook n.15, 1921-1922); L.L. Figini, A Dioscurus from the Capitoline Hill and two statues from Palazzo Barberini, (AAF Milano, Notebook, p. 4).

In addition to Bottoni, Luigi Figini, Gino Pollini, Piero Gnechi Ruscone, and Antonio Cassi Ramelli, portrayed alongside illustrious professors, are the first two women architects trained at the Regio Politecnico: Elvira Luigia (known as Gigetta) Morassi and Carla Maria Bassi, both graduated in 1928 (Bucchetti et alii 2021, pp. 68-69). Of particular interest is the comparative analysis between the photographs and travel notebooks of some participants, notably Piero Bottoni³, Luigi Figini⁴, and Gino Pollini⁵.

Such comparison clearly shows that, considering the amount of graphic and photographic material, the visit to the excavations of Pompeii became the pivotal point of the journey, a more intensely evocative moment and genuine serendipity for these young architects-in-the-making. Direct contact with remnants from a much older past than the medieval remains (previously suggested as a model) clearly heightened participants' awareness of a kind of archetypal Mediterranean identity. For the journey's protagonists, this idea proved highly beneficial over time in shaping design, offering concrete alternatives to the language of Eclecticism and nineteenth-century ideas of living environment and urban development.

The toolbox of the Milanese polytechnic students

In examining the reasons and methods behind this radical paradigm shift, the question arises as to what fertile ground received the seeds of this new ancient modernity, and which knowledge and skills the "excursionists" already possessed.



a



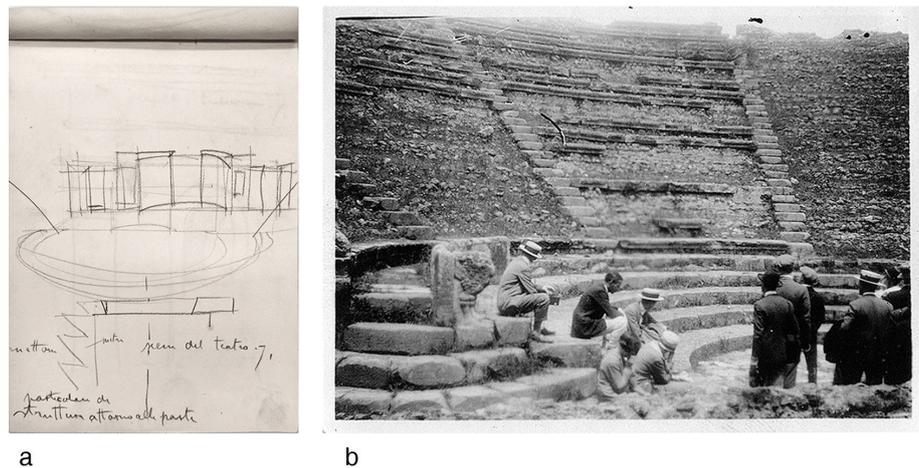
b

Fig. 4

During his visit to the excavations at Pompeii, P. Bottoni discovered the art of mosaic, noting (APB, Notebook n.9, p.13) its geometric composition, chromatic effects, and architectural relationships, which he would revisit many years later in the decorations of the Sesto San Giovanni civic centre.

The fertile ground consisted in the three-year programme at the *Scuola speciale architetti* of the Regio Politecnico di Milano, originating from the two-year preparatory school established by Camillo Boito. This was modelled after the polytechnic didactic approach, functioning as a training course where the design of the new would explore historical forms through drawing in its various expressions and variations. During the two-year period, the acquisition of the necessary graphic skills was ensured through attendance of the two-year courses in *Ornato e Figura* (ornate and figure) taught by painters such as Giuseppe Fei from Ferrara, a professor at the Regia Accademia di Brera, held concurrently with the preparatory courses in *Architettura*, which Ambrogio Annoni oversaw. The effectiveness of this initial phase of architectural apprenticeship in mastering graphic representation is evident in the notebooks produced between 1921 and 1923 by Piero Bottoni⁶. These clearly demonstrate that even a student with a traditional high school diploma – lacking specialised graphic skills – gradually learned how to train eyes and hand, improving stroke quality and developing sensitivity to understand the significant plastic and compositional relationships within reality.

During the three-year continuation of the *Scuola Speciale*, in the courses *Architecture 1, 2, and 3*, Ambrogio Annoni was replaced by Gaetano Morretti – also teaching at Brera and later, in 1933, the first dean of the newly established *Scuola di Architettura Politecnica* – while Annoni taught the courses on *Organismi e Forme* (organisms and shapes). Conversely, the drawing courses were divided into three-year programmes of *Decorazione e Figura* (decoration and figure) and *Prospettiva* (perspective) (Santacroce

**Fig. 5**

a) Sketch by P. Bottoni depicting the stage and doors of the theatre in Pompeii and the detail of the structure around the doors («la scena e le porte del teatro di Pompeii e il particolare di struttura attorno alle porte»), APB, Notebook n.9, p. 9); b) Students sketching the theatre stage at Pompeii, under the gaze of Prof. C. Fratino (APB, photographic collection).

2024), initially taught by painters Giuseppe Fei and Giuseppe Mentessi (both associated with the poetics of the Lombard Scapigliatura movement) and later entrusted to Cesare Fratino, Mentessi's pupil at Accademia di Brera, though with a profile more distinctly focused on scenography and the representation of architectural space (Santacroce 2024).

Overall, this pedagogical approach was based on combining design and graphic teachings, activated through the collection of graphic descriptions of examples, regarded as paradigmatic tested solutions to specific compositional, expressive, and constructive problems. The path began with redrawing from books of classical antiquities, then continued the following year by integrating the redrawing of copies with a survey of Renaissance, Baroque, and Risorgimento examples. It reached its culmination in the final exercise of the fourth year, which consisted of a project drawn up *à la manière de*, as a demonstration of the mastery of composition and construction acquired by the student.

In the final year, significant emphasis was placed on the in-situ study of the Lombard Romanesque period, covered by both the drawing and design courses and further examined in the optional course of *Medieval Archaeology*, taught by Ugo Monneret de Villard. Boito's theoretical and didactic vision, in fact, highlighted the civic and spiritual values of fourteenth-century Lombardy as an exemplary model for future professionals and intellectuals of the young Italian nation. This type of architecture was exemplified in the knowledge and construction expertise of the Comacine Masters. Such values were to be instilled in student architects through a balanced approach, combining ex-cathedra lectures, bibliographic input, and direct physical engagement with artefacts.

The notebooks compiled by Piero Bottoni during his entire academic career (1921-1926) – as well as, though less systematically, those by Luigi Figini (who also graduated in 1926) and Gino Pollini, who received his qualification the following year – testify to the ongoing educational achievements of this pedagogical journey established since 1865. Bottoni's carnet, however, records a pivotal moment during the 1926 trip, his contained sketches clearly showing the shift from Boito's regionalist approach to Mediterranean classicism. The latter, with its multiple interpretations, became the point of contact and comparison with the most progressive voices of the international scene at the time and, simultaneously, one of the distinctive features of the *Scuola di Milano*.

In fact, the analysis of the travel drawings shows how, during that experience, each student began to reveal the architect he would later become

in his maturity, recognising, in the places and artefacts encountered during that youthful period, the same aspects and themes that would later define his distinctive traits and professional style.

For example, during the explorations of Pompeii, Bottoni abandoned the precise and almost “surgical” graphics that characterised his previous notebooks, gathering quick sketches of the Pompeian wall decorations. These sketches aimed at capturing the chromatic aspects that were to form the basis of his reflections on the use of colour as an element of urban identity, which he fully articulated in the first complete theoretical expression a year after the trip, in the article “Cromatismi architettonici” (Bottoni 1927-28; Rossi et alii 2015). Yet, Pompeii also encouraged Bottoni to explore the beauty of mosaic art, whose secrets he sought to uncover through the feverish annotations depicting floor and wall decorations. These included valuable suggestions for geometric compositions, decorative motifs, and colour effects. Many years later, Bottoni would extensively dwell on these notes in Sesto San Giovanni, both in decorating the mosaic tree on a wall of the office tower and in the town’s flooring hall.

Bottoni showed the precocious sensitivity typical of an urban planner towards the crucial role played by collective spaces in shaping the urban fabric, the same trait he would show in the morphological design of the QT8 neighbourhood and, above all, in the plan for the Sesto San Giovanni Civic Centre. He paused both to describe graphically the Roman theatre of Pompeii and to photograph teachers and students engaged in surveying it on site, seated on the steps of the cavea. Bottoni drew up a very concise and compelling sketch of the theatre, abandoning the meticulous graphic style of his previous notebooks, outlined the relationship between the cavea and the volumetric arrangement of the scene with just a few incisive lines. He chose to forgo detailed graphic work in favour of expressiveness, emphasising the importance of capturing those ancient deposit of collective values.

Pompeii. Towards the project

When one travels and practices the figurative arts – architecture, painting, sculpture – one looks with the eyes and draws so that the things seen can be internalised. The things captured through the work of the pencil remain with us for life; they are written, inscribed (Le Corbusier 1961, p. 37) (TdA).

Observation is not a passive act; it is more than just recording; it is a form of active engagement judgment. In this context, the protagonists are the sketchbooks of a circle of friends and fellow students: Piero Bottoni, Luigi Figini, Gino Pollini, and their drawn (and photographed) record of the visit to the excavations of Pompeii. Their friend Giuseppe Terragni was not present on this occasion; he was in Rome, visiting the Forums, and the ruins of the capital (Ciucci 2005; Ferretti et alii 2018).

These *carnets de voyage* reveal the start of a journey towards the formalisation of Italian Architecture of Rationalism. These rapid sketches, interpret the ruins with their flaws and present a kind of original landscape, an extraordinary imaginative source. As already mentioned, it is July 1926, amidst a murky political history becoming more and more obscure. In the suitcase, Le Corbusier’s *Vers une Architecture*, as a gift to Gino Pollini from his artists friend Fortunato Depero, which came into the hands of the group of friends in 1925 (Panzeri vol. 84, 2015).

The lessons that the ruins teach are many and complex. They form a vital part of the architect's work, provided they are internalised through a tangible connection that appears in notebooks. Therefore, it is necessary to study them with the mind by drawing, reasoning through sketches, and understanding how walls merge into and modify the ground. For example, visualising what architectural forms can originate, in excavation or elevation, from walls, platforms, and columns. They train the eye and the intellect for a process of accumulation in the personal casket from which authentic inventions arise (Ferro 2007; Torricelli 2023).

Everyone perceives in the ruins what they already wished to discover. These powerful rediscoveries and derivations establish connections with distant architectures. Drawings are the actual space of discipline, an excellent synthetic moment, a necessary order of thought. They form a practice of "excavation" and amplification of the individual symbolic universe. The group of young architecture students from the Milanese school viewed the ancient differently from their masters, Gaetano Moretti, Ambrogio Annoni, Piero Portaluppi, also showing some impatience with certain impositions. They challenged traditional methods of exploring architecture, discovering a form of "originality" rooted in a substantial and timeless logical-formal reasoning. The study of the ancient acted as a projection towards modernity, providing these young individuals with a rational framework. Piero Bottoni wrote:

Architecture was presented to us through studies of the Doric or Ionic capital abacus, reconstructions of ancient Roman temples based on the texts of Canina and d'Espouy, and generally through a series of purely formal, academic ideas that bore no relation to the forms of architecture being constructed at that time (Consonni et alii 1990) (TdA).

These were exercises on styles by assuming the elements of design in a predominantly allegorical-representative key. All this was tight for these young architects-in-the-making.

Coincidences

«Le Corbusier exerted on us the same lyrical fascination of his technical and axiomatic prose». With its straightforward slogans, yet sharp and commanding like the points of a programme designed to stir souls and motivate them to struggle, *Vers une Architecture* revealed to each graduating student the path he was looking for. In other words, the way to finally bridge the gap between the language of architecture and the forms of everyday life, became clearer since the nineteenth century and was heightened by the war (Consonni et alii 1990).

The itinerary (both real and designed) followed by Le Corbusier in Pompeii marked the main route, but in 1926, the state of the excavations was different, and the group benefited from an exceptional guide, Amedeo Maiuri, the new Superintendent and Director of the excavations. Certainly, Le Corbusier signifies a shift in direction. A new understanding of ruins emerged; old paradigms were discarded, along with any romantic, cheesy notions of the ruins.

Le Corbusier created a link between Pompeii and the wider world: the ruins of Pompeii were fragments of architecture and practical tools; they became a "warehouse", a living collection of examples and architectural devices, revealing the poetic essence of small, rational spaces. In a nutshell, Le

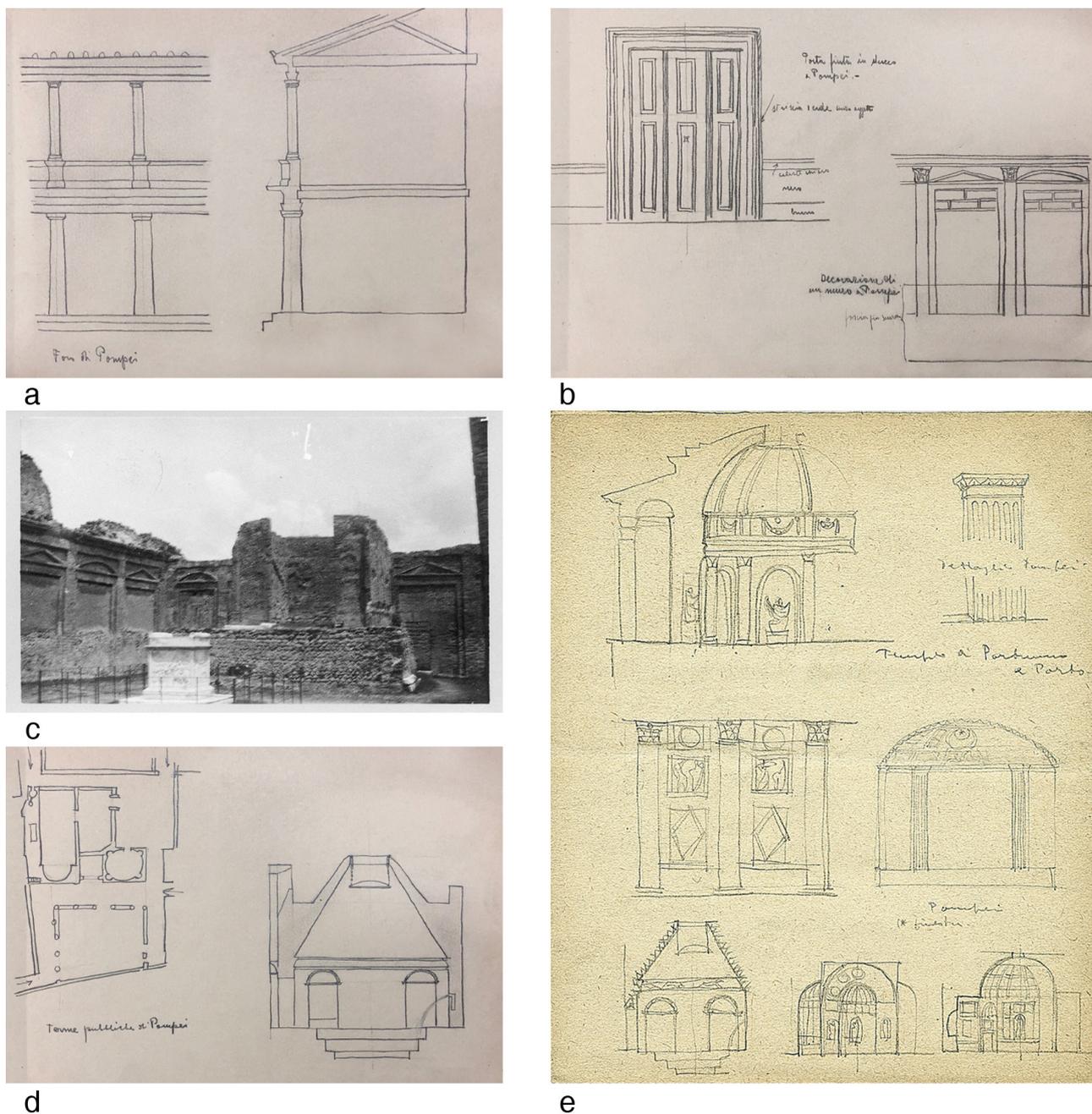


Fig. 6
Forum and Forum Baths. a), b), d) Sketches by G. Pollini (Fondo MART, Notebook 9), c) Temple of Vespasian in the Forum (APB, photographic collection); e) Sketches by L. Figini (AAF Milano).

Corbusier clearly stated what Goethe had already sensed. After the initial disappointment, the ruins of Pompeii became the centre of a new historical-cultural paradigm in the reception of the ancient (Goethe 1786-88). A paradigm focused on morphology, specifically the “mummified city”, as Goethe described it, would be perceived differently, as a collection of “intelligent” and “pleasant” compositions no longer confined or diminutive. This marked the start of a modern reinterpretation of the ruins, going beyond Winkelmann’s grand vision of their “great” and “noble” character. Moreover, by observing Mediterranean house architecture, Goethe and Le Corbusier alike recognised the continuity and correspondence between the ancient world and the modern, acknowledging both logical-formal and structural permanence.

In 1926, the polytechnic group had a special guide, Amedeo Maiuri, appointed Superintendent of Campania and Director of the excavations of Pompeii in 1924, just two years earlier. Maiuri, the archaeologist-poet, was a dedicated scholar but also a talented storyteller, describing things

Fig. 7

The Polytechnic group at the Triangular Forum and the Theatre (APB, photographic collection). a) Triangular forum; b) sitting in the summa cavea of the Theatre. The phrase «Sull'ultimo gradone del teatro: Zanotta, Fratino, Sovraintendente scavi, Bottonpietro, Moretti, Bertini» is written on the back of the photograph. c) The wall of the Theatre from the Triangular Forum; d) photo taken from a distance of the group in photo b.



a



b



c



d

Fig. 8

From APB photographic collection, a) House of Marcus Lucretius Fronto, b) (possibly) Domus of the Silver Wedding, on the back: «Interno di una casa in fondo Pacanowsky. Foto fatta nell'atrio verso il tablinum (dove è Pacanowsky) in fondo il peristilio»; c) House of Vettii.



a



b

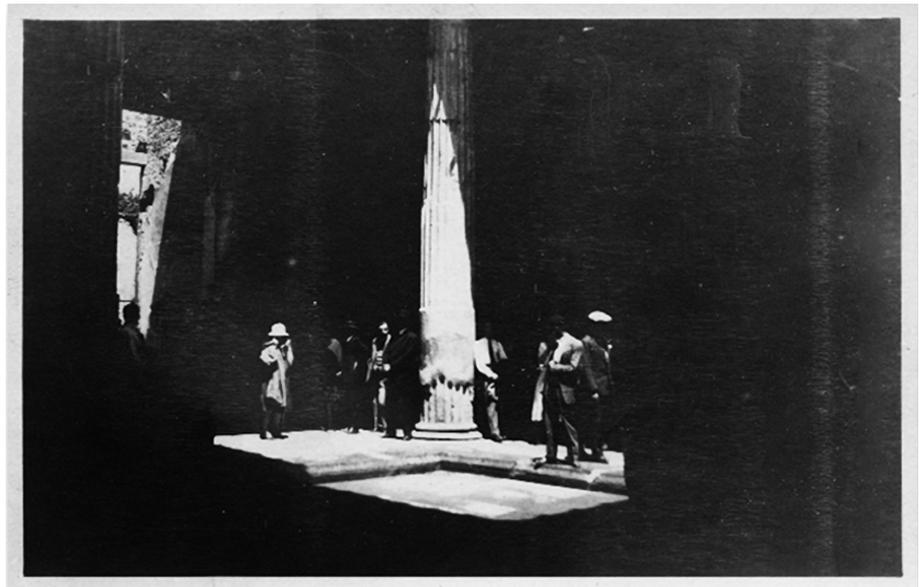


c

with an artist's passion, the dedication of a historian, and the precision of a scientist. He blended the real and the imaginary. In short, he captivated them all, and this made the difference. These narratives would reveal new architectural scenarios and spark a fresh imaginary: the poetry of daily life, houses with peristyles, novel proportions, and innovative geometries became central (Osanna 2017; Pappalardo 2017).

The itinerary in the city

In the first part of the visit, a clear narrative emerges intertwining with Le Corbusier's work. As they ascend the slope with the large, slippery, black lava stone slabs, they reach the Forum. No one copies Le Corbusier's sketches, but they draw new elements, such as the textured walls of the enclosure of the Temple of Vespasian, the reconstructed section of the portico, and the section with a skylight of the Forum baths.



a



b

Fig. 9

The Polytechnic group at the House of the Silver Wedding (APB, photographic collection). a) In the dim light of the tetrastyle atrium; b) In the Rhodian peristyle.

Le Corbusier's words (and sketches) resonate in front of the *House of the Tragic Poet*⁷:

These purposes include the wall (the full physical sensation) and the light, as well as the space (physical sensation). [...] The refinements of a consummate art. Everything is built around the axis, but there could hardly be a trace of a straight line. The axis resides in the intentions, and the splendour it produces extends to humble elements that, with a skilful gesture (corridors, the main passage, etc.), are invested through the optical illusion. Here, the axis is not a symbol of theoretical aridity but connects load-bearing volumes that are clearly inscribed and differentiated from each other. When you visit the House of the Tragic Poet, you will find that everything is in harmony. However, the sensation is rich; skilled misalignments can be observed that add intensity to the volumes: the central motif of the flooring is recessed from the room's centre; the entrance well is on the side of the pool; the fountain at the bottom is in a corner of the garden (Le Corbusier 1924) (TdA).

The polytechnic group crossed the oldest nucleus of Pompeii and then followed along *Via dei Teatri*, reaching the Triangular Forum (the Greek Forum) with the propylaea. The landscape, especially the viewpoints on the theatre complex, impressed them: they lingered for a long time and



Fig. 10

Plan of Pompeii archaeological area and new town in 1926. In green: embankments not yet excavated at present; in yellow: embankments still to be excavated (new excavations) in the year of the trip. Blue pins indicate documented sites of visit (L. Ferro, PoliMi).

documented the urban ensemble of Forum/Theatre/Gymnasium extensively, noting the height differences, the connections, the large staircase, and finally the Theatre. Walls, solids and voids, columns. They went up the *Via Stabiana* to reach the House of Marcus Lucretius⁸:

[...] Respect the walls. The Pompeian does not pierce the walls. He has a sacred devotion to walls; he loves light. Light is intense when it is between walls that reflect it. The ancients built walls that stretched and connected to make the wall even larger. In doing so, they created volumes, the foundation of the architectural and sensory experience. The light shines deliberately at one end to illuminate the walls. It projects its impression outward through the cylinders (I dislike calling them columns; it's a worn-out word), the peristyles, or pillars. The ground extends where possible, simple and equal. Sometimes, to create a particular feeling, the ground is raised a step. There are no other interior architectural elements: just the light, the reflecting walls in an ample space, and the ground, which acts as a horizontal wall. Creating illuminated walls involves designing interior architectural elements. The proportions are maintained (Le Corbusier 1924) (TdA).

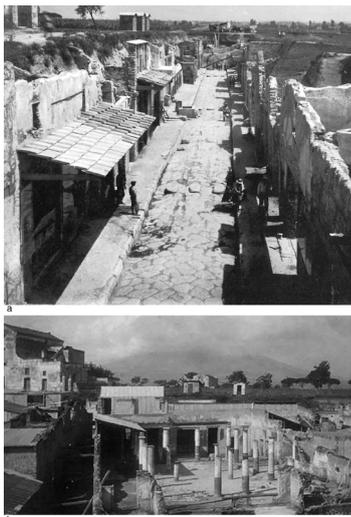


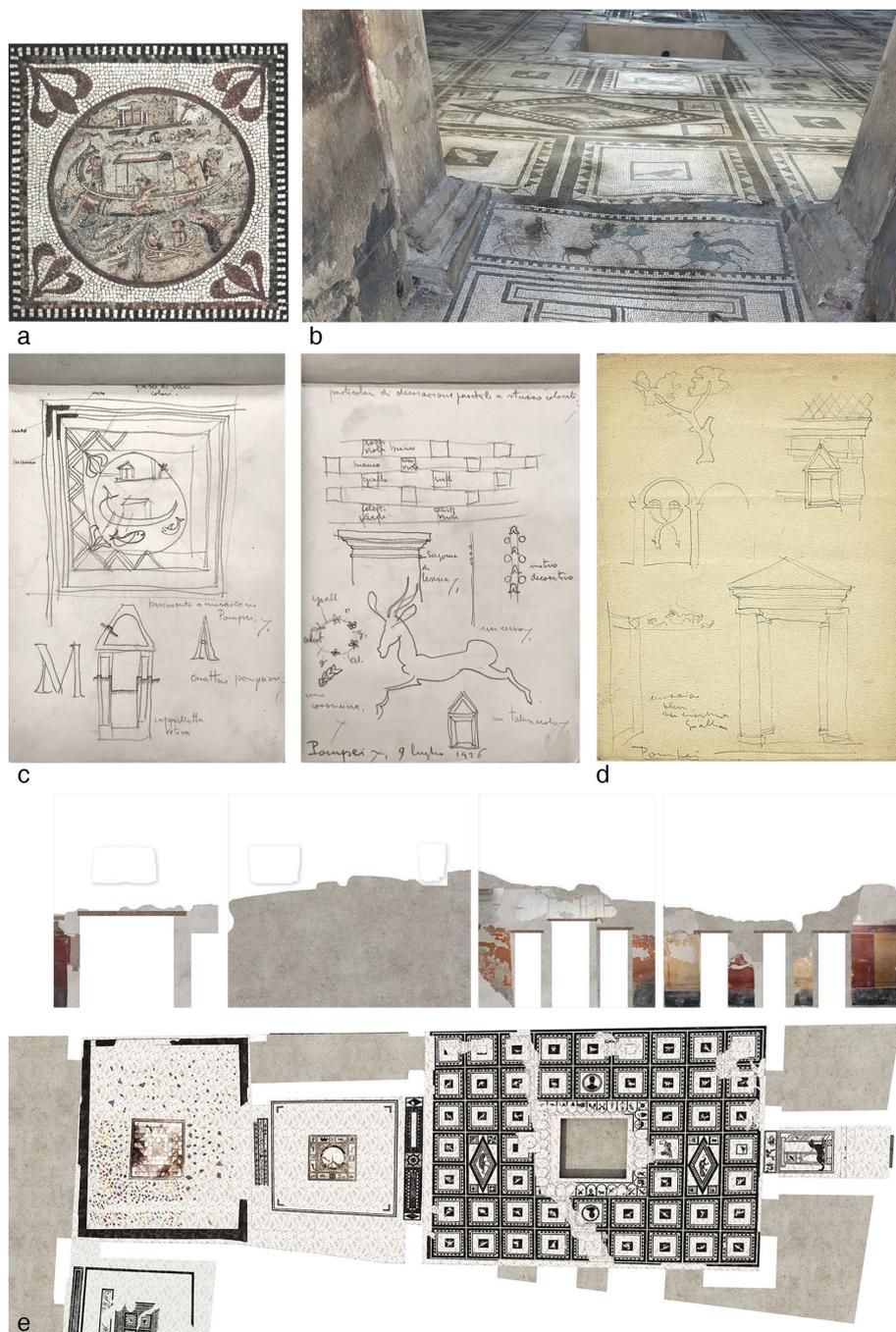
Fig. 11

Excavations in progress from 1924 to 1926 (Archivio Storico PA-Pompei – Pompeiisites). a) Street of Abundance; b) Peristyle of the House of Paquius Proculus.

The group continued to visit the House of the Vettii⁹, then crossed *Via del Vesuvio* and deviated into a small alley. Here, the most awaited Domus, immortalised by the famous drawings of Le Corbusier, the House of the Silver Wedding.

[...] Again, the small vestibule that leads you out of your thoughts. Here, you find yourself in the atrium, where four columns rise suddenly toward the shadowed roof – a testament to mighty means; yet, finally, the splendour of the garden seen through the peristyle unfolds this light with a broad gesture, dispersing and signalling it, stretching far to the right and left, creating a large space. Between these is the tablinum, which encloses this view like the eyepiece of an instrument. To the right and left are two small, shaded chambers. From every street and bustling with picturesque scenes, you have entered the house of a Roman [...] What might these rooms be used for? That is beside the point. After twenty centuries, without any historical references, one perceives the architecture, and all this is, in fact, a small house (Le Corbusier 1924) (TdA).

In the grand tetrastyle atrium, in dim light, the group photo captures the entire polytechnic group. A tribute to the master. At this point, the group departed from Le Corbusier's path and conventional itineraries, heading

**Fig. 12**

House of *Paquius Proculus*, Regio I, ins. 7.1. a) Nilotic mosaic uncovered in the triclinium on the portico (foto by L. Ferro); b) Detail of the atrium (foto L. Ferro); c) Sketches from P. Bottoni notebook (APB, Politecnico di Milano); d) Sketches from L. Figini notebook (AAF Milano); e) Drawing of the atrium and tablinii (L. Ferro_PoliMi).

towards the new excavations. Here, the world of archaeology underwent a radical transformation: while old excavations had already uncovered and museumified everything, new excavations revealed a landscape of soil layers and the moment when the underground world was exposed, necessitating even more imagination to fill the uncertain spaces. *Via dell'Abbondanza* was still a deep furrow between the embankments, with houses and famous shops built in front, resembling scenes from a movie. Some renowned *Domus* were re-emerging here and there from the fragments of lava. Maiuri, who turned forty in 1926, had recently settled and continued the work initiated by his predecessor, Vittorio Spinazzola. He resumed from *Via dell'Abbondanza*, emphasising the long street layout up to *Porta Sarno*, the eastern gate. Here Maiuri presented a view of Pompeii as a lively, noisy place – more so than the calmer, more “residential” Herculaneum – recreating it with expressive language, comparisons, and similes, utilising “gimmicks” and sometimes unscrupulous, sometimes playful combinations.

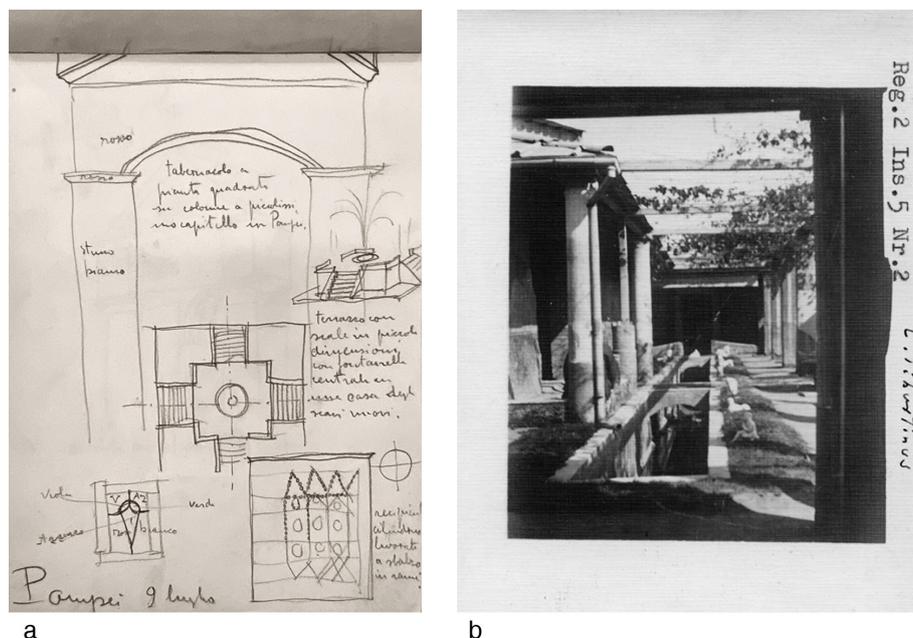


Fig. 13

House of *Loreius Tiburtinus*, Regio II, ins. 5.2. a) Sketches from P. Bottoni's notebook (APB, Politecnico di Milano); b) Photograph of the house in the 1920s (Archivio Storico PA-Pompei - Pompeiisites).

Human nature remains unchanged. Man stays as he is. (Osanna 2017; Pappalardo 2017). Nothing that could lead to nineteenth-century romantic interpretations¹⁰.

The account of the ongoing excavations began with the House of Paquio Proculo¹¹, trapped in the frozen moment of the catastrophe during renovation work, forever unfinished. The voice of the graffiti scattered on the walls of the house echoed «that lively and vibrant outdoor life, which floods into the Fauces up to the front door. The traces of men and women, the trails of their passage, the shouting, the shops, the people, and the carts of the *Via dell'Abbondanza* remain recognisable» (Maiuri 1959) (TdA).

On the mosaic of the dog (Fauces), the floor gently sloped towards the atrium, transitioning from whole light into shadow. The small vestibule diverted the mind: the noise and hustle of the city, the voices of the people, fade away. On entering the Atrium, the *cava aedium*, you had to imagine the shadow of the roof (built by Maiuri twenty years later). In the background, the splendour of the garden was visible through the peristyle, unfolding the light with a wide gesture, distributing it, signalling it, extending far to the right and left, defining a large space. When the doors remained open during the day, thanks to the skilful arrangement of the visual axes, one could look deep inside from the entrance. The home was a centre of social interaction and self-presentation; therefore, the guest, passing through the house, received a full impression of its spaciousness and lavish decorative features (Maiuri 1958; Ferro 2016). The group designed the third-style mosaic floor with black and white geometric patterns and figurative elements. The last stop on the visit to the new excavations was the House of Loreio Tiburtino¹².

From the atrium, you pass into a small peristyle and from there into a long porticoed loggia covered with a pergola raised like a terrace above a large garden below, all enclosed by walls. Along the loggia runs a water channel, with statues of animals and herms arranged among the greenery on its edges. Between the columns, there are additional statuettes of the Muses, including a replica of Polyhymnia. In the centre, a tetrastyle temple stands among other water features; at the bottom of the canal, where waterfalls protrude, there is a biclinium with two paintings. These words will strike. [...] (Maiuri 1960) (TdA).

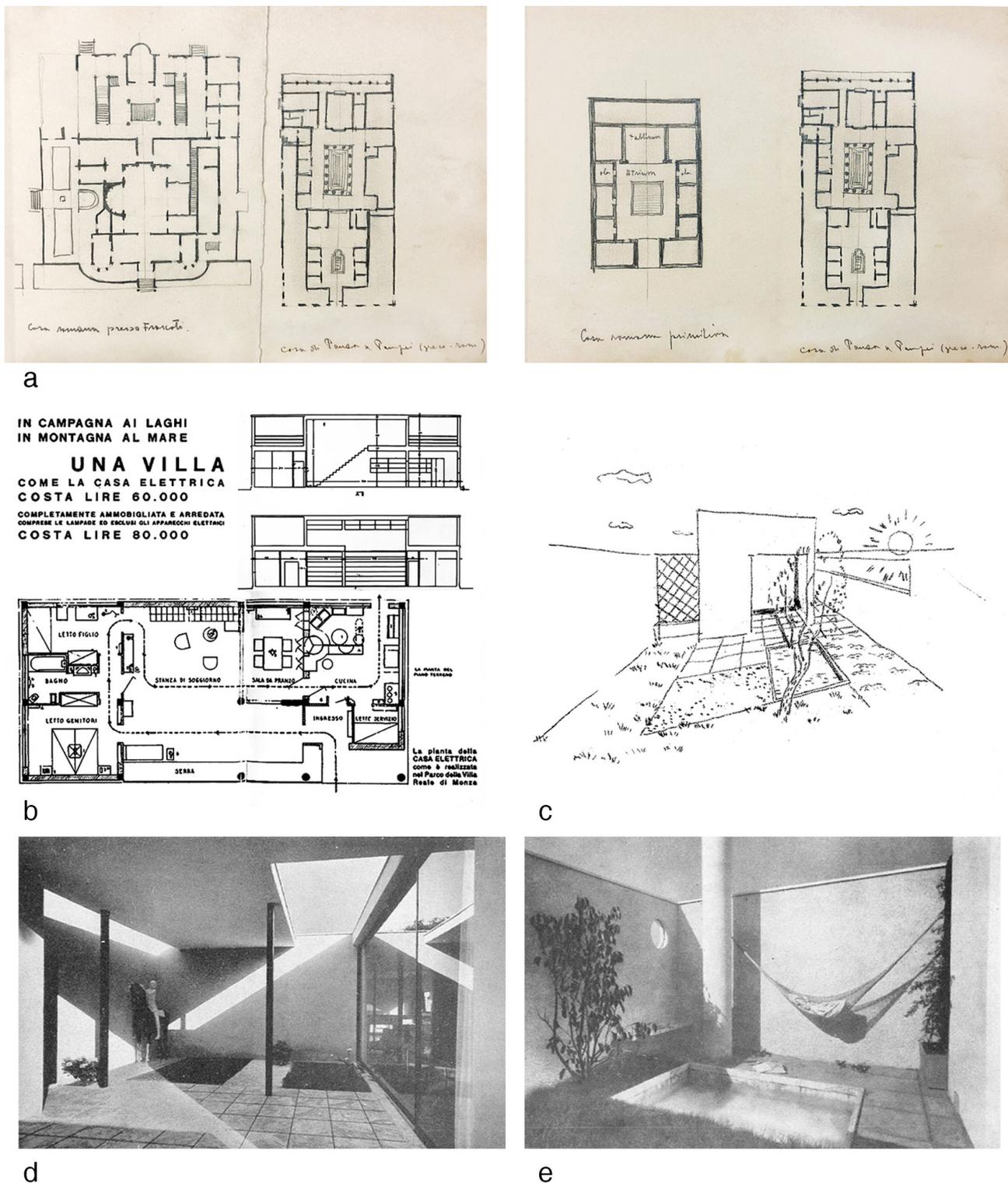


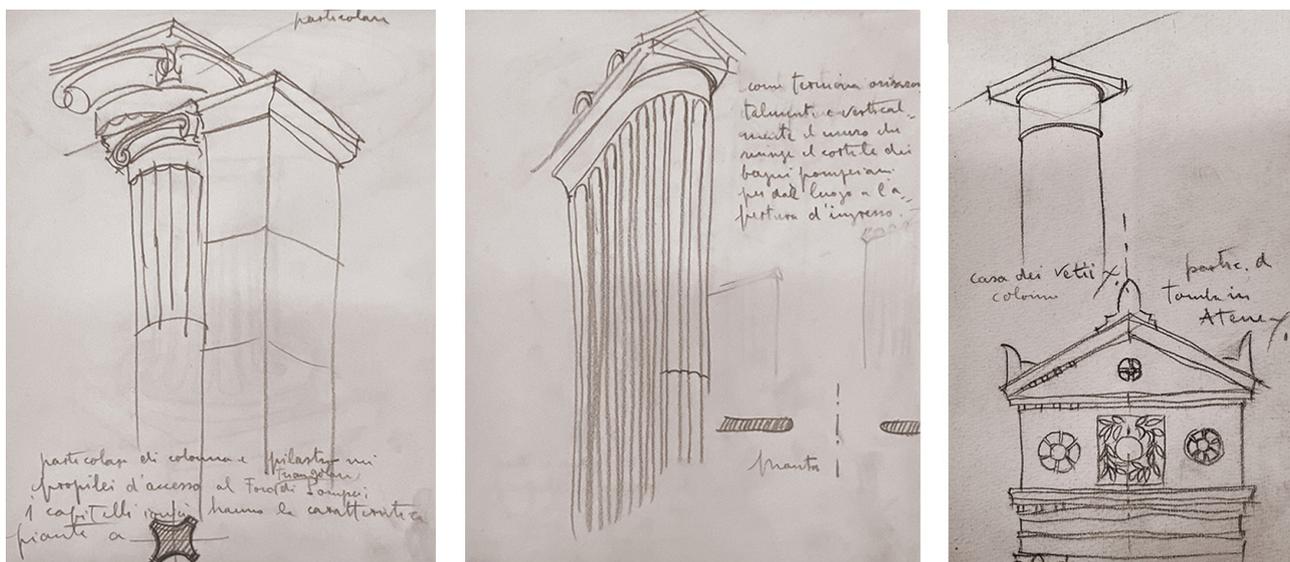
Fig. 14

a) G. Pollini, Comparative plans of the Domus, Notebook n. 7, 1925 (Fonte: MART); b) the Casa Elettrica, Manifesto, IV Triennale 1929-1930; c, d, e) L. Figini, House at the Journalists' Village, Milan, 1933, sketch of the terrace-garden (Protasoni 2010, p. 50 and Figini 1950).

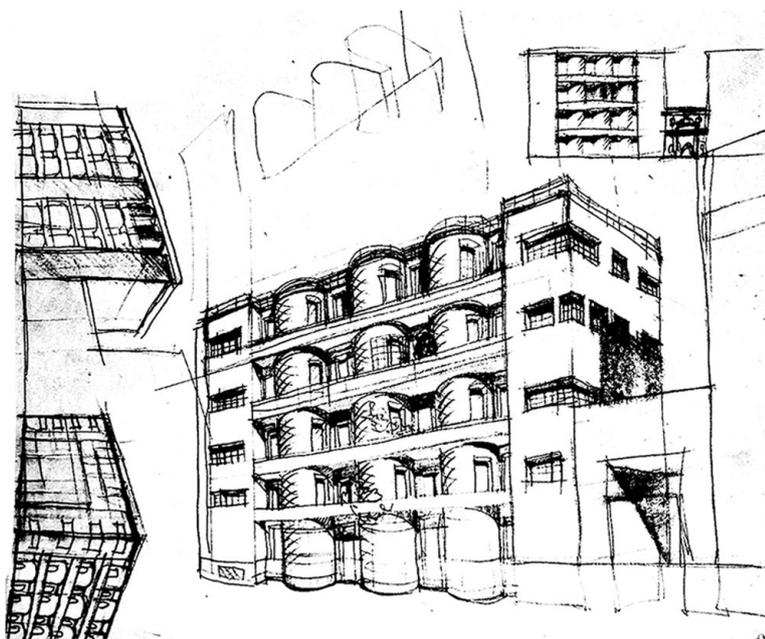
But it was “the golden hour”, at sunset, and the company left the excavations.

Reverbs

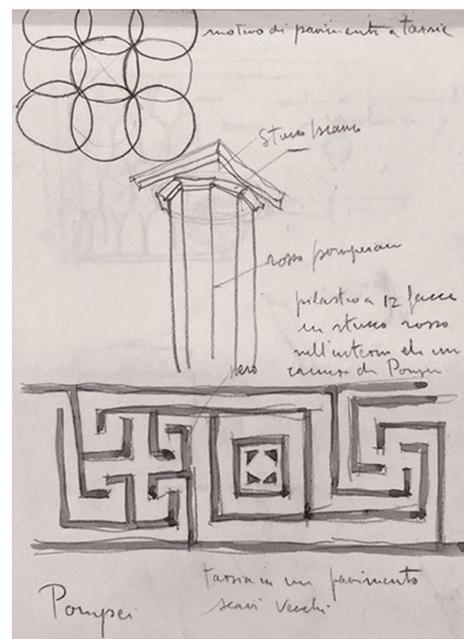
Thus, the excavated city appears as a grand work of architecture, almost a colossal abacus of building types and forms seen in their pure original essence, an excellent opportunity to imagine and initiate new transfigurations. The essence of architecture, freed from stylistic constraints, highlights the elaboration and composition of spaces, geometry, interior/exterior relationships, light and shadow, solids and voids, and visual sequences.



a



b



c

Fig. 15

a) P. Bottoni, Pompeii. Sketches on the composition of the column, Notebook n. 12, (APB, Politecnico di Milano); b) P. Bottoni, Studies for an Itacpm quarter in Viale Argonne, 1928 c.a. (APB, Politecnico di Milano); c) P. Bottoni, Design for the monumental entrance to the Fiera di Milano, Competition 1926 (APB, Politecnico di Milano).

A new way of interpreting the ancient is emerging. The path is opened for a new, synthetic, rational architecture. Much later, Figini wrote:

Herculaneum. Pompeii. In the central rectangles of grass, flowers, and trees, marble and water reflect blue strips of the vast Mediterranean sky. To the north, east, south, and west, surrounding you are the broad, horizontal bays – solid, squat, and fundamental – the columns of the Tuscan peristyle. On the shores of green lawns, fresh *eurips* flow into stone beds, white marble sculptures rise among the grass; and lazy waters, along with waterfalls, jets, and nymphaeums, create playful scenes. Long pergolas shade with vine shoots, sunny porches; flowerbeds suddenly appear from rectangular wall caissons, flourishing between pillars and columns, on the edge of small courtyards. Protected by the arcades' wings and solid walls, summer tricliniums and outdoor pools offer relief. High above the sea, terraces and sunlight stretch out, offering views of the horizon of two distant blues. Centuries of a deathly slumber have passed between lava and ashes in the town of Campania. With precise relationships of walls and greenery, air and sky, covered and open rooms, the houses of Herculaneum and Pompeii revive in the light of our sun, today more current and closer to us than ever (TdA).

The reverberation in the new projects is evident (Figini 1950). As an example among many, Figini's House at *Villaggio dei Giornalisti* (Journalists' Village) in Milan (1934-35). Sketches and reflections in everyone's notebooks indicate the beginning of a formative journey towards the project, towards new means of expression capable of breaking down traditionalist superstructures. In the ruins, they saw primordial aesthetic values, a logical and "simple" architecture. Sketches and annotations show a precise search for cognitive and operational references for the ascent towards new aesthetic values.

But let's look back: all the architecture that has made the name of Rome glorious in the world is based on four or five types: the temple, the basilica, the circus, the round dome, and the thermal structure. And all its strength lies in having maintained these schemes, repeating them to the most distant provinces and refining them through selection (Group 7 1926, 1935) (TdA).

In Pollini's notebooks, the plants of the *Domus* are compared with each other: Atrium, patio, sequence of paths, proportions; all these elements are evoked and transformed in the Casa Elettrica (Group 7 with Piero Bottoni, IV Triennale 1929-30) and in the Villa-Studio for artists (Figini and Pollini, V Triennale, Milan 1934).

The notebooks include reflections on the composition of the wall, the architecture, and the meaning of the wall face with the contrast/wall-column juxtaposition, as well as the full/empty aspects of the plastic-wall system.

Stone and brick have a centuries-old tradition of their own aesthetic, born from the possibilities of construction and now ingrained in us. The essence of ancient architecture lies in overcoming the heaviness of the material, which naturally tends to settle towards the ground. From this challenge, rhythm was born: the eye was satisfied by an element or a combination of elements when these, through form and placement, appeared to have achieved perfect static repose [...] Now, this scale of values, with reinforced concrete, loses all meaning and purpose: from its new possibilities [...] it necessarily develops a new aesthetic entirely different from the traditional, and the overall framework of the construction – the rhythmic interplay of solids and voids – takes on entirely new forms (Group 7 1926, 1935) (TdA).

And then:

[...] On the formal side, the new reinforced concrete architecture finds an analogy in the slender, straight and thin elements, in the simplicity of the planes, in the calm rhythm of the voids and solids, in which the alternation of geometric shadows creates a composition of spaces and values, reminiscent of the periods of origin of Greek architecture (TdA).

The trilithic system, in its most basic, synthetic, and primitive form, is clearly visible in the votive altars (tabernacles) of the *Pompeian Domus*, designed in detail several times by Bottoni, Figini, and Pollini. Their sketches concentrate on the column's theme, exploring different variations and possibilities concerning the wall, the entablature, and the tympanum.

The casual use of columns in Pompeian houses, done in a simplified style with square capitals and round-section columns as pillars, along with their colours, is reflected in the red column of Figini's house in the journalists' village in Milan, or in the columns of Bottoni, which will soon form the atrium of a building in Corso Sempione (Milan). The light that creates reverberations on the walls and the uniqueness of the skylights at the baths

of the forum will later become a central feature in the renowned churches designed by Figini and Pollini.

Thus, the question of the primordial is reborn: the original matrix becomes the inspiring principle and unprecedented origin of “new fables” and new metamorphoses.

Credits

The essay results from a collaboration among the authors in the framework of the Erasmus+ KA220-HED research project *Updating the Grand Tour. Memory and Invention of the European Built Environment*. M.P. Iarossi wrote the initial part on the Polytechnic culture and educational trip, and L. Ferro wrote the parts on Pompei, on the Toolbox of the Milanese Polytechnic students, as well as Towards the Project (Coincidences, The itinerary in the city, Reverbs).

All parts have been compiled thanks to the generous support of: APB-Archivio Piero Bottoni, Dastu-Politecnico di Milano; ACL-Servizi Archivi Storici e Attività Museali del Politecnico di Milano; Archivio del ‘900’ del MART, Rovereto and Archivio Architetto Luigi Figini – AAF.

Special thanks go to C. Santacroce for the graphic reworking of Fig. 2 and M.V. Carosi, C. Forte, M. Saldarini, and G. Tarasco for editing the remaining images.

Notes

¹ This gap might be due to the transfer of the university to its new Lambrate headquarters in 1927, as indicated by the fact that between 1921 and 1927, neither the “Annuario” nor the “Programma” with its “Effemeridi” were published, which regularly reported these initiatives.

² The records of the collection, which houses Piero Bottoni’s personal photographic archive, are available at: <https://www.archiviobottoni.polimi.it/apbdocs/altri-documenti/fotografie-temi-vari>.

³ The *Fondo Taccuini* at APB includes twenty notebooks created by Piero Bottoni between his enrolment at the Regio Politecnico in 1921 and 1933, the year he took part in the IV CIAM Congress.

⁴ Archivio Architetto Luigi Figini – AAF Family Archive.

⁵ *Taccuino 7*, held at the Archivio del ‘900, MART, Rovereto, *Fondo Taccuini Pollini* (1925-1926).

⁶ During the two-year preparatory period, Bottoni compiled six notebooks (notebook n. 1 and notebook n. 15/19), while thirteen notebooks (n. 2/13) can be attributed to his three years at the *Scuola Speciale* (1923-1926). Notebook n. 14, on the other hand, is entirely dedicated to the postgraduate trip to Greece in 1933.

⁷ House of the Tragic Poet Regio VI, ins. 8.3. Here, in the Fauces, is one of the famous mosaics (Cave canem).

⁸ Domus of Marcus Lucretius Regio IX, ins. 3.5.

⁹ *Domus dei Vettii*, Regio VI, ins. 15.1.

¹⁰ The Figini Private Archive preserves the famous guides to Pompeii and Herculaneum (Maiuri 1960) purchased by Figini and annotated alongside some key elements of his future writings and projects.

Among other things, Maiuri also fascinated for his operational site practices (under his direction there is a significant presence of workers, blacksmiths, carpenters, mosaicists...).

¹¹ *Domus of Paquius Proculus*, also known as *Cuspius Pansa*, Regio I, ins. 7.1.

¹² *Domus of Loreius Tiburtinus*, also known as *Octavius Quartione* Regio II, ins. 5.2.

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