

## ARCHITECTURAL COMPOSITION AS AN ACKNOWLEDGEMENT TOOL FOR ARCHAEOLOGY; THE CASE OF PAESTUM ARCHAEOLOGICAL PARK/

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**Abstract.** Archaeological sites serve as dynamic spaces that narrate stories across time, using their fragmented structures to reveal hidden histories and evoke lost environments. These ruins, far from being static remnants, invite reinterpretation and imaginative engagement. By exploring their spatial arrangements, we can uncover layers of architectural composition that offer insights into both their historical form and their current fragmented state. This dual perspective allows for reconstructions that envision their past completeness and an appreciation of their present condition as cultural artifacts.

Ruins, in their incompleteness, become catalysts for imagination, bridging the tangible and intangible aspects of history. The act of reconstructing spaces from fragments is inherently selective and interpretive, requiring deliberate choices that shape how these sites are perceived and experienced. This process transforms ruins into legible compositions that communicate a coherent narrative, blending past and present into an evolving dialogue. By reimagining these spaces, architects and designers can work on heritage while creating immersive experiences that transcend temporal boundaries, offering a richer understanding of history and its connection to contemporary design.

This paper investigates how architectural composition defines the spatiality of archaeological parks, focusing on the interplay between archaeology and architecture. It draws on a didactic experience of Master thesis at the University of Naples Federico II (Master of Science in Architecture and Heritage, 2024–2025, with supervision of Professors Federica Visconti and Renato Capozzi) that explores these themes through a study of Paestum archaeological park.

**Introduction.** Archaeological sites possess a unique ability to tell stories spanning different eras, with their spatial arrangements uncovering hidden histories and bringing lost environments to life. These ancient ruins are not static remnants of the past; rather, they are dynamic fragments that invite reinterpretation. The study of archaeological sites allows us to uncover layers of architectural composition that, when carefully examined and understood, offer multiple “translations” of history. By visualizing these spaces as they might have once appeared and appreciating their current fragmented states, we can access both the physical and conceptual richness of these places across time.

There is an opportunity to view these ruins through a dual lens. On one hand, they present a “possible form”—a reconstruction or an imagined

completion that fills in the missing parts of the structure and brings the past into sharper focus. On the other, there is an interpretive approach that considers these spaces as they stand now, honoring their fragmented nature and understanding them as artifacts of cultural memory. The remains of walls, columns, and foundations offer glimpses into the architectural language of bygone societies, inviting contemporary designers and architects to engage in a dialogue between the past and the future.

In this light, ruins become more than just historical artifacts; they serve as catalysts for the imagination. These fragments, in their incompleteness, allow us to reconstruct not only the physical structures but also the intangible experiences of ancient inhabitants, weaving together narratives that reflect both history and modern understanding. By engaging in this imaginative process, architectural composition transforms into a powerful narrative tool, bridging time and providing an enriched spatial experience that recites the heritage of the site working with the creativity of contemporary design.

The reproduction of spaces from fragments is an inherently selective and interpretive act, shaped by choices about which elements to emphasize, which to reconstruct, and which to leave as they are. This process of recomposing spaces from remnants requires a deliberate decision-making approach, where architects and designers carefully select aspects of the past to bring forward, creating a coherent narrative from incomplete pieces. These choices not only affect how we perceive the ruins but also transform them into legible compositions, bridging gaps in history and inviting viewers to experience the site as an interconnected whole.

The static nature of ruins, traditionally seen as unchanging remnants, can be reconsidered as part of a living composition that reveals movement and transformation over time. By reshaping these fragments within new spatial compositions, architects can communicate the history of the place in ways that are more accessible and communicative. This approach gives new life to the ruins, presenting them not as relics frozen in time but as part of an evolving dialogue between past and present.

As the philosopher Georg Simmel observed [1], the unique quality of ruins lies in their ability to collapse temporalities, allowing us to experience multiple eras within a single space. Simmel argued that ruins prompt us to “contemplate the past in the way in which they are present in the past,” suggesting that these fragments inherently carry layers of temporal meaning. They invite us to dwell in a moment that is at once present and historical, a space where time becomes fluid and where the past is not something distant but something alive within the present. This temporal ambiguity enhances our understanding of ruins, making them powerful tools for evoking memory, imagination, and a deeper spatial awareness that transcends linear time.

**Reinterpreting Ruins: The Role of Type in Reconstruction and Architectural Design.** For understanding the shape proposed for ruins in their new reconstruction, the “type” needs to be considered. As stated by Vittorio Gregotti [2], the type can be associated with “order the experience according to schemes that allows its operability”. In this sense the study of type allows us to have critical \_ analytical moment that results in generation of different forms and alternatives open to reinterpretation.

The archaeological ruins are somehow repository of the ancient order, it is possible to restore the sense of a space reduced to the state of ruin, reconstructing its ancient order through configuration of typological characteristics and forms reduced to primary required elements.

Studying the type can result in reductions that results in reducing diversity and result in identification of relationships. The essence of studying type can be seen inside the work of Giorgio Grassi on the castle of Abbateregaso [3]. In this project the monument in the state of ruin was reconstructed to its constituent elements with generalization of type and in fact new project was delivered in physical continuity with the existing. This type was also closely related to the urban role of the castle essential to reflect the meaning to overall design for the ancient city.

To emphasize the importance of expressing spatial qualities within archaeological parks, architects can utilize contemporary architectural volumes that redefine the experiential conditions of ancient ruins. Notable examples include the work of Luigi Franciosini [4], the Faragola Archaeological Park project in Italy [5] and Darío Álvarez's intervention at the Roman Villa of El Vergel [6]. Each of these projects demonstrates how modern architectural interventions can thoughtfully engage with and reinterpret historical sites, creating dialogues between past and present while preserving the integrity and cultural significance of the ruins.

**Preservation Through Reconstruction: Case Studies in Reconstruction.** The archaeological site of Faragola, near Ausculum in Apulia, lies within an agricultural landscape and contains rooms with intricately designed mosaic floors and opus sectile panels. These elements, though remarkably preserved, are fragile, making them challenging to move. Following the intentional fire in September 2017, the Higher Institute for Conservation and Restoration, in collaboration with the Superintendence for Archaeological Heritage of Puglia and the University of Foggia, deemed it essential to preserve these features in situ. Consequently, they recommended covering the site to enhance microclimatic conditions and improve rainwater drainage.

This conservation strategy is closely linked to optimizing the site's accessibility and appreciation, aiming to convey both the material and spatial dimensions of the architectural system. Emphasis was placed on showcasing not only the decorative and constructive aspects of the complex but also its spatial qualities to reflect the original functions and social context of the site within its broader territorial landscape.

The project's structural envelope closely follows the layout of the original wall networks, completing the archaeological complex while respecting its spatial relationships. However, due to limited dimensional data on the original heights of various sections, a precise reconstruction was not feasible. Instead, the project aimed for a volumetric-spatial configuration that conveys the proportional and hierarchical relationships of spaces, highlighting primary and secondary areas and their functions.

To compensate for missing visual markers within the space, the project identified key spatial elements through partial volumetric completions of the original walls. These reconstructed wall sections not only fulfill structural requirements but also enhance spatial orientation and percep-

tion, revealing the distinct identities and relationships of various areas. For instance, the backdrop of the "Cenatio" area [7], with its apse-like termination, provides structural support for beams while also creating a visual focal point for the richly detailed S[tibadium] [8]. In the Faragola project, the intervention transcends its role as mere shelter, serving instead as a means for reconstructing and interpreting the spatiality of spaces—now reduced to fragments—through the lens of architectural composition.

The second example of using architectural reconstruction to showcase the spatial conditions of archaeological ruins is The Roman Villa of El Vergel. Here, pavilion structures not only protect the remains but also "complete" the ruins, enhancing visitor understanding by partially reconstructing the room's original spatial qualities. A double façade recreates the interior and exterior faces of the ancient Roman wall, including its original thickness: the outer face is formed by a corrugated, micro-perforated sheet matching the surrounding fence, while the inner face consists of a continuous U-glass wall. Between these layers lies a steel structure anchored on modular precast concrete elements that rest on the original wall's foundations. The space's soft lighting and abstract forms create a thoughtful distance between the contemporary intervention and the Roman remains, inviting visitors to perceive these fragments as they were: enclosed rooms. This design allows visitors to transition from exterior to interior spaces without losing awareness of the villa's placement within the landscape.

**The case study of Paestum archaeological park: Interpreting Spatial Configurations through fragmented nature.** Paestum Archaeological Park, founded in the 6th century BCE during the height of Magna Graecia, stands as an exceptional example of ancient Greek and Roman urban planning, known for its remarkably preserved Doric temples and extensive classical ruins. This UNESCO World Heritage site provides invaluable insight into ancient architectural and cultural practices, featuring three monumental temples dedicated to Hera and Athena, which are among the best-preserved Greek temples worldwide. The distinctive character of this archaeological park arises not only from these monumental temples but also from the fragments of ruins that reveal the city's grid layout and the remains of Roman houses, offering a holistic view of ancient civic life.

Among the fragments of the Paestum archaeological park rests the ruins of "House with Pool" which shows how the wealthy inhabitants owned large, sumptuous residences like this villa which covers a wide area, ca, 2,800 sqm, in an "insula" located in the southern area of the city.

This house is characterized by the presence of a double atrium and a peristyle, in the center of which there is a large swimming pool, fed by three large water chutes open on the short northern side. A colonnade surrounded the garden and the pool. The proximity of this house to the Roman forum suggests the importance of this residence.

Torelli [9] in his essay dedicated to the Roman Paestum states: "The architectural dominance of the characteristic, immense peristyle, containing the vast swimming pool accessible through a slide, dates back to the late first century A.D." Excavations carried out between 2017 and 2019 have shown that the house with a swimming pool backs onto pre-existing structures attributable to the Greek Poseidonia of the Hellenistic age.

Today, the majestic grandeur of this residence is no longer fully perceptible on site due to its fragmented state. The surviving ruins fail to convey the spatial organization, coherence, and original interconnectedness of the spaces as they once existed. This fragmented condition can sometimes lead to misinterpretations. For example, the current visibility between the temples, the forum, and the other residences from within the house's courtyards does not accurately reflect the original ancient layout. This view of the forum and temples from within the house is only possible due to the absence of enclosing structures that once obstructed this line of sight.

The first step to propose the composition for this space is to understand the conditions. As discussed by Renato Capozzi, "A project that aspires to respond adequately to a theme must first of all know the monument in depth," listen to its lesson", trying to reconstitute its lost unity, through precise formal choices." [10].

The defining feature of the house with the pool lies in its expansive typological layout, prominently characterized by a series of courtyards, including a spacious pool area. As shown in Figure 3 – through using the method of RedBlue plan proposed by Uwe Schröder in the book *Pardie* [11] – the current state of the ruins gives the impression that all areas are open, external spaces. The absence of volumetric structures obscures the spatial composition, leading to misinterpretations of boundaries, the character of the space, dimensions, and spatial arrangement.

Figure 4 presents, a reconstruction hypothesis through the same method, highlighting that spaces surrounding the courtyards in a Roman house were, in fact, enclosed with clearly defined boundaries. These areas were connected internally, opening toward the courtyards, which acted as linking elements among the different sections of a Roman home.

Understanding this typology reveals the necessity of re-establishing volumes to illustrate the spatial composition effectively, ensuring that the ruins convey an accurate narrative to visitors.

Roman culture has long embraced the sacred symbolism embedded within atriums and peristyles, architectural features that introduce light and air into dense, enclosed spaces through zenithal openings, thereby establishing a visual and spatial connection to the sky.

The conceptual roots of these open-space designs in Roman and Greek domestic architecture demonstrate a shared function: to facilitate natural lighting, ventilation, and rainwater collection. However, each culture employed distinct methods to achieve this aim, resulting in differing spatial organizations and relationships between open and enclosed areas. According to Faustel De Coulanges [12], "with the Greek, the square that formed the house was divided in two: the courtyard and the house. While in Roman time, the arrangement was different but in core the same: the hearth was always arranged in the middle of the fence, but the construction rise around it on the four sides to close it in the middle of a small courtyard."

As a reflex, the Hellenistic culture has transmitted to the Romans the sacred value of the space of the void. This important knowledge cannot be delivered without physically implying the closed areas to visitors to better emphasize on voids as courtyards in Roman house.

**Conclusion.** The ruins, even if condemned by time to a condition that makes them come to us in the form of partial, interrupted, and fragmented structures, are arranged as "virtually" and semantically open works capable of offering enriched spatial narratives through a thoughtful museographic approach, enhancing the visitor's experience, and understanding. The way in which the spatial organization of essential elements are perceived in the hypothesis for the Roman house with pool, is effectively using the same orders, conditions, and principles for the space as suggested during the past. As discussed by Giorgio Grassi in his book *Leon Battista Alberti and Roman Architecture* [13], the way Renaissance architects devoted themselves not to directly replicate the forms of Roman architecture, but rather the principles, rules, and conditions of that architecture, inspired them to use the same approach—not imitating the unrepeatable forms of Roman architecture, but working on an idea that allowed "Abstraction" in order to reconfigure the conditions. The same process was considered while the configuration of the "Essential elements," mainly in the form of boundaries, were suggested in the Roman house with pool in Paestum Archaeological Park.

In this approach, the spatial organization, hierarchical significance of various areas within a Roman house, and the proportions and volumes are abstracted and reinterpreted. Through the composition of distinct volumetric walls, the design seeks to delineate enclosed internal spaces with clearly defined boundaries, which then transition seamlessly into the open courtyard areas, which are external spaces in character with a defined boundary.

In conclusion, the fragmented nature of ruins offers a unique opportunity to bridge the past and the present through thoughtful reconstruction and reinterpretation. These remnants serve as dynamic, open works that invite engagement, imagination, and dialogue. By carefully adding elements that enhance their spatial coherence and narrative clarity, architects and designers can respect historical integrity while creating immersive experiences that resonate with contemporary audiences. The case studies discussed highlight the importance of reconstructing essential spatial elements to convey accurate narratives, preserving the essence of historical spaces while enhancing visitor understanding. By focusing on typological principles rather than replicating specific forms, this approach ensures that reconstructed spaces honor their historical significance while allowing their stories to be more vividly and comprehensively experienced.

As pointed out by Renato Capozzi, "The architectural analytical activity is essentially focused on the forms of which the monument is made and from here for their progressive interpretation. The formal observation prepares and 'founds' the project that makes use of the compositional techniques and procedures to introduce recognizable and adequate forms responding to those that exist." [14]. This perspective is critical to the design approach, as it emphasizes the importance of recognizing the inherent forms of the ruins and the necessity of reinterpreting them thoughtfully in a manner that remains true to their original compositional essence, in abstraction and limited to essential elements.

Ultimately, the act of reimagining ruins transforms them from static

remnants into evolving cultural artifacts, enabling a deeper appreciation of their role in shaping architectural heritage and fostering a connection across temporal boundaries.

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#### References.

1. G. Simmel, "Die Ruine", in *Philosophische Kultur*, translated as *La Rovina* in "Rivista di Estetica", no. 8, edited by G. Carchia (1981), p. 135.
2. V. Gregotti, *Il territorio dell'architettura* (Feltrinelli, Milan, 1966), p. 145.
3. Giorgio Grassi's project for the Castle of Abbiategrosso focused on the restoration and adaptive reuse of the historical structure, blending modern interventions with the castle's original medieval elements. The design aimed to highlight the architectural integrity of the site while providing a functional space for contemporary use, respecting its cultural heritage.
4. Luigi Franciosini, is a distinguished Italian architect and professor in University Roma Tre, known for his innovative approach to architectural design and his contributions to architectural theory. As a faculty member in Italy, he has influenced a new generation of architects through both his academic work and practical projects.
5. L. Franciosini and G. Volpe and M. Turchia, *Modelos de Paisajes Patrimoniales: Estrategias de Protección e Intervención Arquitectónica* (Valladolid, Spain, 2017).
6. M. Antoniciello, *Il paesaggio e le forme antiche dell'abitare*, Doctoral thesis, Doctoral Program in Risk and Sustainability in Civil, Building, and Environmental Engineering Systems, XXXII (2016-2019).
7. A *Cenatio* is a term from ancient Roman architecture that refers to the dining room or banquet hall, typically found in Roman villas or wealthy households. It was the space where the family and guests gathered for meals, often featuring elaborate decorations, and sometimes located near the center of the home for easy access. The *cenatio* was an important space for socializing and entertaining in Roman culture.
8. A *stibadium* (or *stibadium*) was a type of Roman dining couch or semicircular couch used in the ancient Roman *triclinium* (dining room). It allowed guests to recline during meals, which was the customary dining posture in Roman society. The *stibadium* typically formed part of the arrangement in the *triclinium*, where diners would lie on couches around a central table, creating a more relaxed and social atmosphere during banquets and feasts. It was often elaborately decorated, with cushions and fine textiles.
9. M. P. Napoli, "Paestum I – II century AD", *Paestum, Archaeological Site Notice, Northern Insulae, House IS n.2-4*.
10. R. Capozzi and F. Visconti and G. Fusco, *Architettura e paesaggi dell'archeologia*, (Aion edition, Napoli, Italy, 2019) pp.20-23.
11. U. Schröder, *Pardié: Konzept für eine Stadt nach dem Zeitregime der Moderne* (Verlag der Buchhandlung Walther König, Köln, 2015).
12. F. De Coulanges, "The Ancient City: A Study on the Religion, Laws, and Institutions of Greece and Rome" (Sansoni, Florence, 1972), p. 66.
13. G. Grassi, *Leon Battista Alberti and Roman Architecture* (Cambridge University

Press, Cambridge, 1992).

14. R. Capozzi and F. Visconti and G. Fusco, *Architettura e paesaggi dell'archeologia*, (Aion edition, Napoli, Italy, 2019) pp.20-23.

#### Figures.

FIGURE 1- The Faragola project by Luigi Franciosini, representing volumetric-spatial configuration of the proposal. Figure 2 - The Roman Villa of El Vergel, showing the aim of project at manifesting spatial conditions of space through volumes and thickness of the wall.

FIGURE 3- Analysis of House with Pool, Actual state, showing spaces with character of externality through red/blue plan analysis.

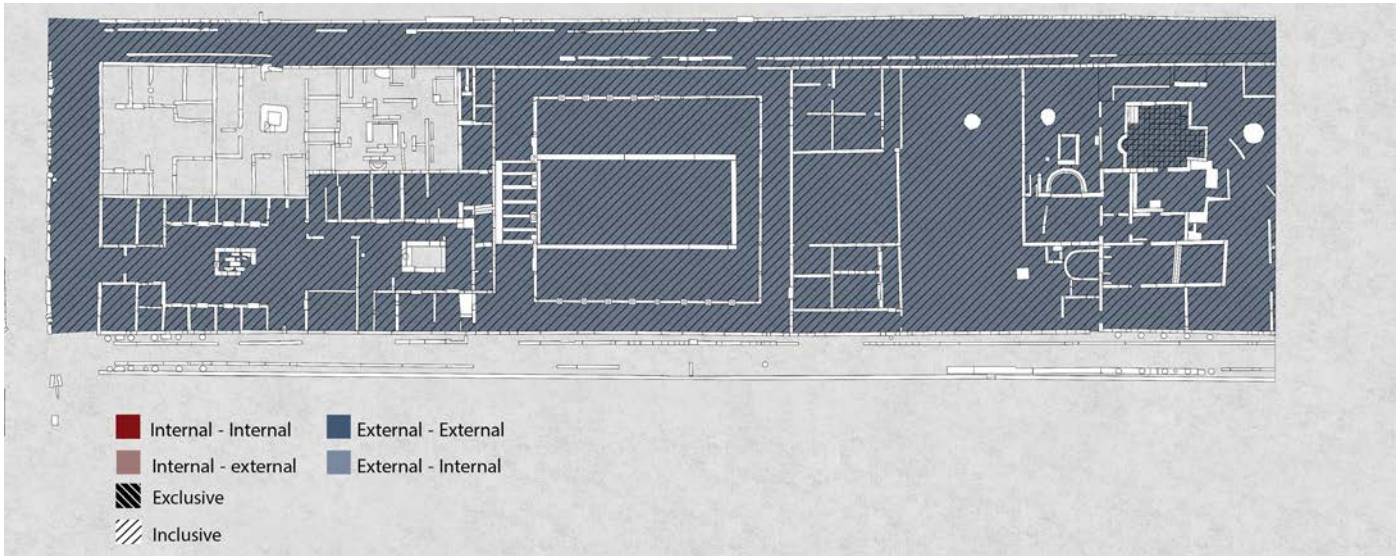
FIGURE 4- Analysis of hypothesis of reconstruction of House with Pool, showing spaces with character of internality and externality reconstruction through red/blue plan analysis.

FIGURE 5- Proposed plan of Roman house with pool, with reconstruction of essential elements in volumetric approach.

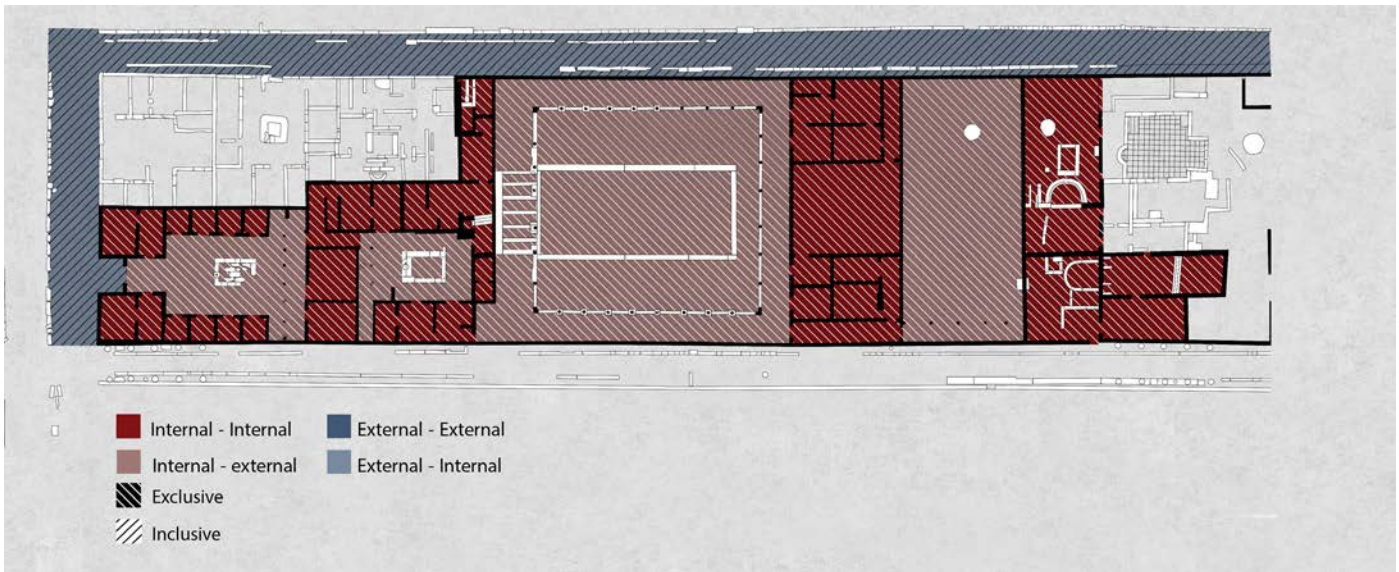
FIGURE 6- Proposed section of Roman house with pool, with reconstruction of essential elements in volumetric approach.



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