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VILLA ADRIANA.

Water Architecture and Archaeological Landscape
Musealization, Accessibility, Enhancement and
Communication Project on The Archaeological Areas

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Contents:

Introduction			3
1	Hadrian: Mirror of the Empire		8
	1.1	Hadrian the Emperor	12
	1.2	Hadrian the Graeculus	18
	1.3	Hadrian the Architect	23
2	Hadrian's Villa: Mirror of the Emperor		28
	2.1	Site	28
	2.2	The Villa: The Emperor's Scroll	33
	2.3	The Rediscovery	42
	2.4	Buffer zone	65
3	The	Re-emergence of Place: From Villa Water Features to	70
	Contemporary Construction		
	3.1	Water Features and Hadrian's Villa	72
	3.2	Case study	80
4	Pro	ect: Mirror of the Villa	99
	4.1	Reawakening Spatial Rituals: A Mirror to the Villa's Thre	eshold 99
	4.2	Near the Echo: A Thermal Pavilion by the Villa	111
	4.3 The Mirrored Threshold: Descending into History, Rising toward Empire		
	4.4 The Mirror Extended: Encountering the Ruins Through the		Path 126
Fir	al Re	eflection: A Mirror Passed Through Time	133
Bibliography 13			

Introduction

The Emperor in the Mirror, the Empire in the Mirror

Hadrian's Villa is not merely a royal palace ruin, nor simply a technical pinnacle of Roman imperial architecture; it more closely resembles the reflection of Emperor Hadrian's entire life—a mirror set by the emperor for himself, and at the same time, a mirror that reflects the spirit, spatiality, and order of the Empire as a whole. Its prolonged construction period, continuously evolving architectural system, and ever-shifting logic of ritual and water landscape almost precisely overlap with the life trajectory of this "travelling emperor," with his political strategies, cultural interests, and even emotional memories.

This thesis unfolds four layers of reading centered on Hadrian's Villa, with a methodological foundation grounded in the ideas that "space is narrative" and "construction is projection":

The first chapter begins with the emperor himself, revisiting Hadrian's multiple identities as a "philosopher-emperor," "architect-emperor," and "travelling-emperor," and, through the intersection of textual and historical sources, tracing how his life trajectory increasingly shaped a conscious authority over space, structure, and culture.

The second chapter turns to the villa itself, analyzing its construction in distinct phases and revealing how it responded to Hadrian's consolidation of political status, the experience of his imperial tours, his coordination of power with the Praetorian Guard, the commemoration of his beloved, and the deep translation of diverse imperial cultures (Greece, Egypt, Asia Minor, etc.). These translations were not straightforward acts of appropriation—there is no pyramid or replica of the Parthenon within the villa—but instead took the form of a deeper cultural abstraction manifested in spatial layout, axial construction, commemorative structures, and hydraulic rhythm: a resonance with memories, experience, and perception rendered through space.

The third chapter takes the water landscape as a central thread, launching a contemporary architectural dialogue that begins from Hadrian's Villa: first, through a critical analysis of the current water systems' closed and artificial nature, highlighting the loss of their original dynamic rhythm and spiritual implication; and second, through the introduction of several modern architectural case studies that, from various dimensions, address the question of "how contemporary architecture engages with historical landscape."

These include: the Barcelona Pavilion, which employs water as a perceptual device, boundary medium, and tool for restructuring spatial rhythm; the expansion of Berlin's Museum Island, which responds abstractly and symmetrically through spatial rhythm, volumetric order, and site respect; and a

series of design operations that do not rely on replication but instead reactivate the perception of ruins through rhythm, silence, and distance.

Together, these examples construct a research landscape that begins from Hadrianic spatial logic and extends into strategies of historical engagement in contemporary expression.

The fourth chapter proposes a set of architectural interventions, including two key constructions: one, a Pavilion situated at the periphery of the ruins, closely tied to the existing structures and designed as a light bathing facility for intimacy with the site, immersion in nature, and the rekindling of bodily perception; the other, a small museum facing the villa's main historical entrance and serving a "prologue" function. In spatial terms, the museum features one descending path leading underground, and another ascending toward the villa proper, directly engaging in a dialogue with the villa's ancient "service circulation" system—one used by slaves underground, and the other by nobles and the emperor above. This spatial cross-section not only responds to the structural logic of the villa, but also prompts visitors to reflect more deeply on the service systems and social hierarchies behind imperial grandeur. The museum acts simultaneously as a modern "anteroom" to Hadrian' s Villa and as an interpretive point for ongoing archaeological discoveries (such as the cryptoporticus, the Antinoeion, and the Canopus aqueduct).

This thesis ultimately explores a possibility: how to enhance the museological presence, public accessibility, and perceptual depth of Hadrian's Villa without damaging its original landscape and historical significance. All analyses and design proposals begin from a deep engagement with the villa's own architectural language—through understanding its axial logic, commemorative mechanisms, hydraulic strategies, and conceptual structure—to trace how the emperor himself conceived space and organized meaning. On this foundation, the thesis attempts to propose a deeper form of intervention, in which contemporary constructions are not merely "supplements" to the ruins, but rather become mirrors that allow us to understand the villa



1. Hadrian: Mirror of the Empire

On the open slopes of Tivoli's foothills lies a ruin, where echoes of nobles and emperors have faded, yet the shifting light and shadows of visitors endure. This is Hadrian's Villa—not the splendor of a palace, nor a replica of temples, but one emperor's intimate response to the world, memory, and identity.

If one were to seek in Roman—indeed, in human—history a figure who unified power, thought, and art into a single being, Hadrian would undoubtedly stand as the closest embodiment of the classical ideal. His name belongs not only to the lineage of *princeps* but also appears in the imagination of philosophers and the blueprints of stonemasons. He was simultaneously the empire' s architect of order, the seeker of ideas, and the constructor of cultural spaces. These three identities were not parallel labels but variations of the same spiritual logic unfolding across different times and spaces. With the authority of a *princeps*, he defended peaceful borders; with the self-awareness of a philosopher, he mediated cultural conflicts; and with the vision of an architect, he shaped a visible beauty of order.

In the traditional imagery of imperial rule, emperors often established prestige through military exploits and transmitted their names through expansion. Hadrian, however, acted counter to this trend. He did not pursue militaristic expansion but instead anchored the legitimacy of power in the repair of frontiers, the reorganization of order, and the internal stability of cultural spaces. He traversed the empire's domains for over half his life—a journey that was not merely political inspection but a tactile measurement of the empire's body. Each pause became an act of cultural-geographical-administrative recognition. He governed the territory not solely through decrees but through an almost "embodied spatial cognition": he valued routes, emphasized scale, and redefined mutual recognition between periphery and center.

Though he never claimed to be a philosopher or authored philosophical

works, philosophy permeated the spiritual foundation of his political and aesthetic judgments. Hadrian's affinity for the Greek world stemmed not from fashion or diplomacy but from a profound resonance with Greek philosophy and way of life. In Athens, he not only restored temples but personally donned Greek civic attire, participating in rituals and public debates as an "insider" rather than a ruler¹. This cultural "embodiment" was, in essence, an act of identity reconstruction. He did not seek to subsume Greece into the empire but to subsume himself into Greece. Standing beneath the same colonnades as Socrates, Plato, and Epicurus², he envisioned a "philosopher-sovereignty" that ruled not merely over multitudes but harmonized diverse values.

Yet to grasp the innermost essence of Hadrian's spirit, one must enter the space he personally conceived, rebuilt, and inhabited: his villa at Tivoli. Within those gardens borrowing scenery from Egypt and echoing Greece, he constructed not merely an imperial retreat but an architectural memory vessel and cosmic model. It was not a reproduction of physical space but a materialization of inner order. He rearranged all he had encountered in his travels—Eastern domes, Greek colonnades, Egyptian sacred pools, Latin baths—as if assembling a silent imperial chronicle: a spiritual autobiography composed of brick, light, and water³.

These three identities did not constitute parallel "persona constructs" but were different refractions of the same integral personality. In Hadrian, imperial power did not reject philosophical thought, philosophical thought did not detach from practice, and practice did not violate aesthetic sensibility. To understand Hadrian is to understand a political philosophy that employs a spatialized approach to comprehend history and the human condition. The villa served as both a mirror of the empire and a mirror of the emperor' s inner self—and it is conceivable that the emperor desired, intangibly, for the empire itself to become a mirror of his own being.

- 1. Historia Augusta, Vita Hadriani, §§13, 19.
- 2.Ibid., §16; Cassius Dio, Roman History, 69.9.
- 3.Boatwright, Mary T. Hadrian and the City of Rome. Princeton University Press, 1987, esp. pp. 211–228.



1.1 Hadrian the Emperor

The Non-War Emperor

Amidst the vast territories of the empire and the clamorous Senate, Hadrian (*Publius Aelius Hadrianus*, AD 76–138) walked the high walls of power in a manner distinct from Caesar or Trajan. He ascended the throne not through military exploits yet left a profound legacy in military reforms; he ruled not by noble lineage yet mastered institutional construction; he expanded no frontiers yet delineated Rome's clearest "imperial boundaries" in history.

This part reconstructs the emperor's political-military life chronologically, focusing on how he shaped and consolidated imperial power through purges, military reorganization, frontier defense, suppression, and institutional succession.

Hadrian was born on January 24, AD 76. His family, of Italian ancestry, belonged to the senatorial class as noble settlers in Spain and held citizenship in Italica¹. His father died when he was ten, after which the future emperor Trajan and his wife Plotina became his guardians².

In his youth, Hadrian exhibited keen interest in Greek language, culture, geometry, architecture, and philosophy—likely influenced by Greek tutors or studies in Greece, a common practice among elite families³. Under Trajan's guardianship, he received education in Rome, mastering rhetoric, literature, and military theory while demonstrating exceptional memory and administrative aptitude⁴.

His political career began under Trajan's reign. Leveraging familial ties, he served as *vigintivir* (member of the Twenty) and tribune, later governing the province of Achaia in Greece. During 101–106, he participated in Trajan's Dacian Wars, managing logistics and supplies⁵.

His competence earned Trajan's favor. In 106, he received the title of suffect consul and subsequently held multiple military commands and provincial

governorships—notably in Pannonia and Syria—where his organizational skills matured alongside his understanding of provincial military-administrative systems 6.

In 117, while Trajan campaigned against Parthia in the east, Hadrian commanded Syrian legions as logistics coordinator. When Trajan died en route, Hadrian was stationed in Antioch. Legions there proclaimed him emperor, and the court announced his posthumous adoption by Trajan, initiating the political succession⁷.

Hadrian faced immediate challenges: doubts surrounded Trajan's adoption, the existence of a will, and the credibility of witnesses (only Trajan's wife and attendants). To consolidate power, he executed four influential figures from Trajan's inner circle in an unsanctioned purge that faced no opposition. Concurrently, he implemented conciliatory policies: forgiving tax arrears, paying military back wages, and conducting religious rites to reaffirm "divinely ordained imperium".

Through this blend of coercion and benevolence, Hadrian rapidly secured control over both army and Senate, establishing a new imperial logic centered on discipline and structural order⁹.

Compared to Trajan's expansionism, Hadrian demonstrated an immediate and decisive shift to a defensive strategy upon his accession. He withdrew from Mesopotamia and reestablished the Euphrates River as the eastern frontier. To the Senate, this represented an "inglorious contraction," yet militarily, it proved prudent¹⁰.

In AD 122, he personally oversaw the construction of the wall bearing his name—Hadrian's Wall—in Britain. This was not merely a military barrier but symbolized the "limitation" of imperial strategic focus. Behind the wall lay the Empire; beyond it, the realm of "disorder" 11.

During this period, he also strengthened military garrisons in North Africa and the Balkans, reforming the military-administrative system to transform defensive lines into modular, self-sustaining security networks. Thus, he truly recast the empire as an "empire with frontiers" 12.

From AD 121 to 132, Hadrian embarked on a decade-long journey across the empire. He traveled not as an inspector but as a "structural supervisor and reconfigurer."

He personally reviewed legions, issued decrees, participated in architectural planning, reformed local taxation, curtailed provincial governors' powers, and reinforced direct bonds between emperor and soldiers. He further decentralized military authority into "multiple nodes," ensuring mutual checks among legion commanders, lieutenants, and local officials to reduce mutiny risks¹³.

This political act carried profound symbolic significance: the emperor's presence had to be made visible in every corner of the empire. Hadrian transformed the concept of "indivisible divinity" into tangible "institutional presence" ¹⁴.

Hadrian's gravest crisis was the Bar Kokhba revolt in Judea. His decision to rebuild Jerusalem as the Jupiter-worshipping city Aelia Capitolina enraged Jews, igniting the largest revolt since Herod the Great¹⁵.

Highly organized and militarized, the rebels established a short-lived state, minted coins, and formed councils. Confronted thus, Hadrian recalled his most capable general, Julius Severus, from Britain and entrusted him with the suppression¹⁶.

The three-year war employed scorched-earth tactics, devastating Judea's population and urban systems. Subsequently, Jews were barred from Jerusalem, and the region was reconstituted as the province Syria Palaestina.

Hadrian' s "iron-fisted suppression" preserved imperial stability but planted enduring seeds of religious and political animosity¹⁷.

After AD 135, Hadrian's health declined rapidly. With his heir Lucius Ceionius's premature death, he instituted a "triple adoption mechanism": designating Antoninus Pius as successor and compelling him to adopt Marcus Aurelius and Verus¹⁸.

This system detached imperial legitimacy from bloodline, replacing it with structural adoption and merit validation. He not only shaped his successors but established the principle that "succession rights and responsibilities must be separate"—marking the transition toward institutional rather than personal dependency in imperial rule¹⁹.

Though initially denied deification by the Senate, Antoninus Pius secured his posthumous title *Divus Hadrianus*, making him the third deified emperor of the Five Good Emperors²⁰.

Hadrian won no new territories but forged institutions. He waged no grand wars yet consolidated military power through reorganization, reform, and control. He was the emperor of frontiers, the emperor of symbols, and above all, the structural ruler indispensable to Rome's maturation in military-political institutions.

He proved that Rome's three-century zenith endured not through expansion but through structural order, institutional logic, and frontier mastery. As historian F. Millar observed: "Hadrian was the pivotal figure who transformed the imperial office from passion into mechanism." ²¹

- 1. Historia Augusta, Vita Hadriani, §1.
- 2.Ibid., §§2-3.
- 3. Birley, Anthony R. Hadrian: The Restless Emperor. Routledge, 1997, pp. 17–22.
- 4.Boatwright, Mary T. Hadrian and the City of Rome. Princeton University Press, 1987, pp. 18–21.
- 5. Cassius Dio, Roman History, 69.1.
- 6.Birley, Hadrian, pp. 42-50.
- 7. Historia Augusta, Vita Hadriani, §5.
- 8.Ibid., §§6–7.
- 9. Millar, Fergus. The Emperor in the Roman World. Duckworth, 1977, p. 58.
- 10. Cassius Dio, Roman History, 69.3.
- 11. Boatwright, Hadrian and the City of Rome, pp. 225–228.
- 12.Ibid., p. 212.
- 13.Birley, Hadrian, pp. 101-115.
- 14.lbid., p. 120.
- 15.Cassius Dio, Roman History, 69.12–14.
- 16.Ibid.
- 17. Millar, The Emperor in the Roman World, pp. 115–117.
- 18. Historia Augusta, Vita Hadriani, §24.
- 19.Birley, Hadrian, pp. 245-248.
- 20.Historia Augusta, Vita Antonini Pii, §5.
- 21. Millar, The Emperor in the Roman World, p. 145.



1.2 Hadrian the Graeculus

According to the *Historia Augusta*, Hadrian was born into a Romanized aristocratic family in Italica, Spain¹. From childhood, he exhibited an almost obsessive passion for Greek culture, mastering the Greek language². Based on his later policies and surviving inscriptions, he likely studied the schools and works of Plato, Aristotle, Epicurus, and others³. His pursuit was not mere erudition but an intrinsic quest for the principles of a higher order.

In his youth, he was called *Graeculus* ("Little Greek")—a somewhat derisive epithet that nonetheless became integral to his identity⁴. Hadrian did not reject Rome but sought to transform it into an empire that better understood Greece and embraced philosophy.

Hadrian was the first Roman emperor to wear a beard⁵. Prior emperors presented clean-shaven faces, symbolizing law, order, and rationality. Beards were worn by philosophers, thinkers, and scholars—those who shaped souls through ideas rather than conquering lands through action.

By adopting a beard, Hadrian aligned his visage with philosophy. He performed this role not only in appearance but in action: receiving philosophers at court⁶, lecturing in Greek cities⁷, listening to lyric poetry in theaters, and filling cities with inscribed knowledge and library colonnades⁸. He transformed the emperor' s image: no longer solely an embodiment of command and glory, but a vessel of ethics and reflection.

Beyond governance, Hadrian frequented local cultural and philosophical circles⁹. Across Asia Minor, Syria, and Greece, he befriended scholars and maintained dialogues with multiple Greek philosophers. Though not a disciple of any single school, his later institutional, architectural, and ceremonial choices reveal a synthesis of classical Greek concepts: "moderate living," "harmony in form," and "understanding fate" ¹⁰.

His statecraft itself manifested philosophy. Facing imperial frontiers, he

rejected Trajan' s expansionism, abandoned Mesopotamia, and emphasized restraint and boundaries¹¹. He halted the empire' s growth. This drew criticism from conservative senators who deemed it a "betrayal of Roman glory," yet Hadrian enforced the withdrawal with absolute administrative rationality. He left no explicit justification, but the political and military consequences reflect an ethos of knowing limits—refusing to sacrifice governance for blind expansion. This restraint (*sōphrosynē*) was the very political virtue extolled by Greek philosophy, particularly Stoicism and Platonic kingship¹².

He personally traversed the empire, from Britain to Egypt, Gaul to Syria. Each journey was not a tour but observation; not conquest but perception. He measured land with his body, judged order with his gaze, and through the "imperial presence," imposed rational order upon chaos¹³.

To him, politics was an art of composition—like architecture, governed by proportion, axis, and metaphor. And his constructions—whether the rebuilt Pantheon or his villa at Tivoli—stood as spatial embodiments of philosophical propositions¹⁴.

In his final years, plagued by illness, Hadrian diverged from emperors who built temples for immortality. Instead, he wrote a poem, four brief lines confronting death:

Little soul, wandering, gentle,
Guest and companion of the body,
Where now will you go,
Pale, stiff, and naked,
No longer joking as you used to?

This *Animula vagula blandula* ("Little Soul, Wandering and Gentle") ¹⁵reads not as a conqueror's last words but as a philosopher's whisper to his own dissolution. He made death not a monument but a love letter to himself.

Hadrian was ultimately deified and listed among the Five Good Emperors. Yet more than a god, he resembles a mirror—one reflecting imperial order and refracting rational thought.

He reconstructed power through philosophy, transforming the emperor from warrior to thinker, the empire from martial rule to cultural stewardship. He made wisdom the rhetoric of power and restraint the virtue of rule.

He did not live before or after Socrates but placed the Socratic question at the very heart of the throne.

Twenty-three years after Hadrian's death, Marcus Aurelius—the last true "philosopher-emperor"—succeeded Antoninus Pius and wrote his Meditations in military tents.

But Hadrian differed: he recorded philosophy not in words but in architecture, institutions, journeys, order, and silence—living it through the empire's skeleton.

And now, every brick, every wall, every line of verse still whispers: once there was an emperor who was neither god nor tyrant, but closest to a philosopher.

1. Historia Augusta, Vita Hadriani, §1.

2.Ibid., §2.

3.Boatwright, Mary T. Hadrian and the City of Rome. Princeton University Press, 1987, pp. 18–25.

4.Birley, Anthony R. Hadrian: The Restless Emperor. Routledge, 1997, pp. 22-23.

5. Cassius Dio, Roman History, 69.3; Beard, Mary. SPQR. Profile Books, 2015, p. 407.

6. Historia Augusta, Vita Hadriani, §16.

7.Ibid., §19.

8.Boatwright, Hadrian and the City of Rome, pp. 115–130.

9.Birley, Hadrian, pp. 116–119.

10.lbid., p. 224.

11. Cassius Dio, Roman History, 69.3–4.

12.Fears, J. Rufus. "The Stoic Ideal and the Politics of the Roman Empire." Aufstieg und Niedergang der römischen Welt II.16.3 (1986), pp. 1501–1544.

13.Millar, Fergus. The Emperor in the Roman World. Duckworth, 1977, pp. 143–152.

14.Boatwright, Hadrian, pp. 211-230.

15. Historia Augusta, Vita Hadriani, §25; also preserved in the Anthologia Latina.



1.3 Hadrian the Architect

An architect—though never formally addressed as such—Hadrian had even clashed with the renowned architect Apollodorus of Damascus over a building design before becoming emperor. When he proposed ideas for dome construction, Apollodorus derisively told him to "go draw his gourds," dismissing his expertise¹. This account remains historically contested and politically charged², yet it reveals a crucial fact: Hadrian refused to exist merely as a patron of architecture; he demanded to engage in spatial creation as an "architectural thinker." And judging by his extant works, his "gourds" proved remarkably sophisticated.

He spent his youth in Rome, but his true awakening came in Greece. Described as "obsessed with diagrams and geometry" ³, this was no mere scholarly hobby but training for an architect' s mind. In Athens, he not only read Plato but also absorbed the sacred order of space in the shadow of the Parthenon. Enthralled by Stoic colonnades, the rhythms of Misenum, and enclosed forums, he began to envision the empire through proportion and order, much as philosophers deconstructed the world through reason⁴.

Under Trajan, Hadrian served as general, administrator, and diplomat—yet behind each role, he remained an observer, surveyor, and recorder. Traversing the empire from Britain to Syria, from Gallic arches to Palmyrene colonnades, he silently cataloged every structure, façade, and interplay of light and stone⁵.

The *Historia Augusta* notes he "greatly loved traveling and wished to personally know the places he had read about" ⁶. On these journeys, he witnessed temples oriented eastward to greet dawn, harbors unfolding with topographic logic, Greek cities organized by philosophy, Eastern spaces shaped by ritual, and Latin pragmatism driving construction. He internalized these "architectural languages," preparing to compose his own spatial poetry when unimpeded power became his.

Perhaps through these experiences, he invisibly fused imperial cultures and philosophical reflection into his works. As both patron and creator, he unconsciously forged architectural elements that later coalesced into his empire-wide building programs⁷. His reign marked the "climax of Roman urbanization" —not merely in scale but in the profound unity of architectural language and conception of order⁸.

When he became emperor in 117, few anticipated that this scholar-like heir would rule the world so differently.

He ceased expanding and instead repaired, enclosed, and defined. He saw the empire as a vast but disordered foundation requiring reorganization. His governance was an "imperial spatial restructuring".

On Britain's northern frontier, he drew order's limit with a long wall. Unlike military conquerors coveting distant lands, he reversed course: solidifying stone and earth across rolling hills into a "line" declaring where the empire ended. This wall was not just defense but ritual and symbol—intentionally or not, visually announcing to border peoples and enemies: *Here lies civilization's contour; here Rome meets non-Rome*¹⁰.

He loved Athens above all cities. Based on his Hellenistic philosophical training, he seemed to construct a tangible utopia there. He expanded the Temple of Zeus, built the Hadrianic Library, colonnades, squares, and established the "Hadrianopolis" district alongside Theseus' ancient city¹¹. Not a conqueror but a "second founder" ¹², he paid Greece his highest tribute: translating philosophy into space, ideals into walls.

Most breathtaking was his villa at Tivoli: an architect's lifelong labyrinth of the mind, a collage of empire and memory. Construction began almost concurrently with his accession. He transplanted spatial fragments from his travels: Egypt's Canopus, Athenian stoas, the Antinoeion, Ptolemaic pools¹³. In architectural language, he retold the world—recreating his cosmic vision through water, corridors, light, and statues.

It was private yet public: private in mirroring his thoughts on love, death, and culture; public as the empire's supreme aesthetic statement. Unspoken yet undeniable: in those waters reflecting sky and stone lay his imperial ideal. Not the garden itself, but all Rome, quietly materialized in light and proportion.

As death neared, he designed his own mausoleum—Hadrian's Tomb, today's Castel Sant' Angelo¹⁴. This circular structure fused Etruscan and Greek burial traditions, its interior a spatial labyrinth ascending toward the sky. He interpreted the end through geometry, sealed eternity within a vault.

He defined space in life and prophesied memory's form in death. Encased in stone and proportion, he became an eternal architect.

Hadrian was an emperor who practiced architecture as intellectual discipline. He envisioned the empire as architecture to be reshaped, culture as structural substrate, philosophy as spatial transcendence. He built not with bricks but ideas.

"Hadrian governed not land, but space."

—Marguerite Yourcenar, Memoirs of Hadrian¹⁵

He left no philosophical treatise, yet composed an inhabitable philosophical system through cities, walls, temples, and gardens. He was truly the "Architectus Imperii" —not merely Rome's architect, but the fabricator of order and imagination.

- 1. Cassius Dio, Roman History, 69.4.
- 2.Boatwright, Mary T. Hadrian and the City of Rome. Princeton University Press, 1987, pp. 128–130.
- 3. Historia Augusta, Vita Hadriani, §1.6.
- 4.Birley, Anthony R. Hadrian: The Restless Emperor. Routledge, 1997, pp. 55–59.
- 5.Boatwright, Hadrian and the City of Rome, pp. 183–192.
- 6. Historia Augusta, Vita Hadriani, §17.8.
- 7.MacDonald, William L. The Architecture of the Roman Empire: An Urban Appraisal, Yale University Press, 1986, pp. 185–189.
- 8.Claridge, Amanda. Rome: An Oxford Archaeological Guide. Oxford University Press, 1998, p. 110.
- 9. Millar, Fergus. The Emperor in the Roman World. Duckworth, 1977, pp. 132–134.
- 10.Boatwright, Hadrian and the City of Rome, pp. 225–228.
- 11.lbid., pp. 98–105.
- 12. Historia Augusta, Vita Hadriani, §19.2.
- 13. Senseney, John. The Art of Building in the Classical World. Cambridge University Press, 2011, pp. 211–214.
- 14.MacDonald, William L. The Architecture of the Roman Empire: An Urban Appraisal, pp. 145–149.
- 15. Yourcenar, Marguerite. Memoirs of Hadrian, trans. Grace Frick, Farrar, Straus and Giroux, 1954, p. 117.





2 Hadrian's Villa: Mirror of the Roman

2.1 Site

Located on the outskirts of Tivoli in central Italy, the villa's siting reflects both the emperor's acute understanding of the natural environment and a sophisticated spatial strategy integrating topography, hydrology, and architectural design¹. This siting was not accidental but rooted in profound observation of geographical forms and construction potential. As a complex removed from urban centers yet connected to civilization, the villa embodies an emerging paradigm in early imperial architecture—one prioritizing non-axial spaces, immersive experiences, and landscape composition¹.

Topographic Conformity and Layout

The villa occupies the southwestern edge of the Tivoli plain, characterized by complex landforms: gentle slopes, low hills, alluvial terraces, and valleys descending southeast to northwest toward the Aniene River gorge². Significant elevation variations and diverse terrain offered opportunities for vertical layering and horizontal expansion, yet rendered the site inherently challenging—a three-dimensional canvas demanding precise adaptation.

The complex adheres to a principle of topographic conformity rather than domination. Rejecting traditional axial compositions symbolizing sovereign order, it employs a decentralized multipolar system generated by the terrain itself³. Architectural units distribute organically along ridges, platforms, and slopes—not as geometric partitions but as interconnected spatial nodes. This system exhibits strong site-responsiveness in path organization, visual control, and spatial rhythm. Each structure cluster functions as an autonomous space while being choreographed into a broader landscape composition through topographic guidance³.

Spatial Context and Site Tradition

The villa did not emerge in a cultural or natural void. Tivoli, an independent city-state during the Latin League era, had been under Roman influence since the 4th century BC, retaining its status as a mountain fortress and sacred site⁴.

By the late Republic, its climate, terrain, and water resources attracted concentrated aristocratic villa construction.

The Villa of Brutus south of Hadrian's complex exemplifies this tradition. Its terraced layout incorporated porticoes and gravity-fed aqueducts supporting fountains and reservoirs. Though less elaborate than Hadrian's villa, it demonstrates preexisting local expertise in integrating topography-hydrology-architecture⁵. Hadrian's achievement lay in scaling and systematizing this legacy, transforming architecture and nature from juxtaposed elements into mutually logical extensions. Regional geomorphic knowledge and infrastructure thus provided historical depth and geographic rationale for the villa's design⁵.

Integration of Natural Resources and Water Systems

The Tivoli area possesses abundant natural and engineered water resources. Situated within the confluence zone of four major Roman aqueducts—Anio Vetus, Anio Novus, Aqua Marcia, and Aqua Claudia—the villa's elevation above Rome enabled gravity-fed water distribution. These aqueducts proved decisive for siting, supporting large-scale baths, fountain complexes, courtyard water features, and subterranean cooling systems.

Water transcends functionality to become a symbolic and spatial organizer. The linear pool at Canopus extends spatial depth through reflection, while the encircling canal of the Maritime Theatre—with its reconstructed "island" — architecturally resolves the paradox of enclosure and openness⁷. Water not only nourishes stone and vegetation but also modulates microclimates and imbues space with temporality and sound.

The villa's hydraulic system integrates preexisting Roman infrastructure into an experiential architecture-nature-flow mechanism, positioning water as a primary element for spatial definition, nodal connection, and path guidance⁷.



Natural Order in Spatial Experience

The villa's composition signifies a new imperial spatial logic. Unlike palaces emphasizing central axes, vertical symmetry, and monumental facades to manifest sovereignty, here space deconstructs into walkable, explorable, contemplative units⁸. Path systems exploit elevation changes and meandering routes to deliberately disrupt linear progression, creating sensory narratives of delayed revelation and reconfigured vistas.

Spatial sequences unfold through natural interfaces—terraces, balustrades, woodlands, and buildings—using concealment and disclosure to craft multilayered perspectives⁸. This strategy heightens landscape dynamism while providing a highly controlled stage for imperial presence or withdrawal. Architecture and nature thus cease to oppose; they co-constitute spatial rhythm and political symbolism⁹.

Such spatial tactics express Hadrian's "architectural persona": rather than replicating a Jupiter-like "new Palatine," he crafted a locus for contemplation where nature, culture, and imperial identity converge¹⁰.

1.MacDonald, William L., and John A. Pinto. Hadrian's Villa and Its Legacy. Yale University Press, 1995, pp. 33–34.

2.Ibid., p. 33.

3.lbid., pp. 36–38.

4.Ibid., p. 35.

5.lbid., pp. 35–36.

6.lbid., p. 33.

7.Ibid., pp. 39–40.

8.lbid., p. 40.

9.Ibid., pp. 40–41.

10.lbid., p. 40.



2.2 The Villa: The Emperor's Scroll

Hadrian's Villa stands not only as one of the most expansive imperial palace complexes of the Roman Empire but also as the sole architectural system whose conception, construction, and evolution align almost entirely with an emperor's personal life trajectory. Unlike earlier Roman emperors who preferred crafting power symbols within the Senate's city, Hadrian chose the Tivoli foothills—a site long associated with aristocratic villas—to initiate a twenty-year spatial project. His aim was not political retreat but the architectural reinvention of imperial identity through nature and hydrology away from urban clamor.

The villa's construction unfolds in three distinct phases, each mirroring Hadrian's own path of power consolidation and transformation:

Phase I (AD 118–121): Beginning with his accession, spatial strategy reflects an introverted, gradual expression of order.

Phase II (AD 121–125): Following his first grand imperial tour (Itinerarium Principis), spaces adopt more public, ritualized structures responding to his "frontier-experienced" architectural vision.

Phase III (AD 125–138): Spanning his second journey to the post-Antinous era, the villa enters its final stage of commemoration, axial integration, and systematic order—where architecture serves as both private memorial and imperial will incarnate.

Phase chronology is established via brickstamp (bolli laterizi) analysis, construction technique comparison, spatial nesting relationships, and stratigraphic evidence.

This tripartite framework structures our analysis, tracing the villa's spatial metamorphosis from secluded privacy to public ritual and finally commemorative mourning. Simultaneously, we track how Hadrian's lived experience materializes in architectural forms, topographic manipulation, water design, and axial logic. Here, architecture transcends imperial living quarters to become a spatial grammar of the emperor's consciousness and worldview.

Fig2.2.2 Analysis of the Construction History of Hadrian's Villa. Created by the author, 2025.







Phase I (AD 118–121 CE): Spatial Experimentation and Self-Expression in the Early Consolidation of Power

Following Trajan's death in AD 117, Hadrian was proclaimed emperor; his position was legitimate yet unstable due to the initial lack of senatorial support, controversies over the "testamentary" succession procedures, and the purge of political opponents (e.g., Aulus Cornelius Palma and Lusius Quietus), compelling him to undertake actions stabilizing power structures during his early reign.¹ Notably, he did not establish ostentatious axial-style palatial architecture in Rome but initiated monumental villa construction in Tivoli's foothills.

The villa's development in this phase reflects a relatively introverted, non-urban imperial expression strategy—not political evasion but spatial control, enabling redefinition of imperial presence through geographical distance from power centers.² Early constructions centered on enclosed, vaguely axial, slow-paced architectural units, forming a structural system emphasizing cadence, enclosure, and contemplation. This layout ensured security while reinforcing a "residence of thought" under personal dominance, marking Hadrian's initial spatial articulation of the "philosopher-emperor" image.³

Maritime Theatre

As one of the villa's earliest completed structures, the Maritime Theatre consists of a circular colonnade with Ionic columns encircling an artificial water channel, with a raised central island housing a living hall, small baths, a study, and service rooms. Its layout forms a completely enclosed spatial structure, connected to the outside only by a rotating bridge, constituting a "severable world." Water here serves not only as a visual compositional element but also provides the emperor with a meditative structure between environmental control and sensory rhythm. Although no texts explicitly identify Hadrian with a specific philosophical school, his life repeatedly expressed profound respect for Greek philosophy, particularly his engagement with Stoicism and Epicureanism. The "circle-island-water-perambulation" configuration exhibited in the Maritime Theatre's space maintains consistency

with the concepts of "self-sufficient living," "natural order," and "contemplative gardens" within these philosophical traditions.

Hall of the Philosophers

This hall is a rectangular space with wall niches, speculated to have displayed philosopher statues, serving as a symbolic space for debate and teaching.⁷ Although its architectural function cannot be precisely defined, its location and scale suggest it was a venue for small-scale speculative dialogues between Hadrian, trusted officials, and cultural guests.

Bathing Complexes (Heliocaminus Baths and Large/Small Baths)

An independent bathing system had already formed during Phase I.8 The Heliocaminus is a solar-heated bath, compact in volume, located in the villa's early core area, likely reserved for imperial private use. The Large Baths feature a complete cold-warm-hot bathing system with apodyteria (changing rooms) and service circulation paths; the Small Baths have simplified functions, primarily for subordinate staff or servants. Brickstamps explicitly date these to AD 118–121.

Poecile and Nymphaeum Courtyard

The Poecile, a long gallery surrounding a pool, likely derives from the renowned Stoa Poikile (Painted Stoa) in Athenian philosophical tradition, where Zeno, founder of Stoicism, delivered lectures and held philosophical discussions. Hadrian held deep reverence for this, having visited Athens multiple times and served as archon. The Poecile, comprising a colonnade approximately 230 meters long encircling a rectangular pool, formed the main ambulatio (promenade) space; its structure imitated the Athenian model but on a monumental scale. Water features dominated the experiential composition within the Poecile. Pool water reflected light and column shadows, growing increasingly complex with changes in sunlight and wind speed, forming a structure of "nature-reason interaction." As walkers moved between colonnades and pools at a walking pace, they experienced the harmonious unity of spatial order and bodily sensation through shifting

scenes.12

Phase II (AD 121–125 CE): Ritualization of Power and Spatial Publicization after the Imperial Tour

In AD 121, Hadrian embarked on his first empire-wide journey lasting three years across Gaul, Britain, Spain, North Africa, and Asia Minor. Adopting a "frontier inspection" posture, he reshaped spatial relations between emperor and provinces while intensifying personal intervention in architecture, urban policy, and cultural governance. Upon his return (AD 123–124), he translated this imperial accessibility into spatial language through more open layouts, multifunctional structures, and "political theater" features at the villa.

Piazza d' Oro (Golden Square)

This banquet-reception complex centers on a rectangular courtyard. A core pool and surrounding colonnades establish enclosed symmetry, while the northern octagonal domed hall connects to auxiliary rooms and service zones. Interpreted as a courtly assembly space for senators, envoys, or imperial banquets, brickstamps indicate construction peaked during AD 123–125.¹³ Its design logic parallels palatial structures from Antioch or Alexandrian dynastic architecture observed during Hadrian's travels, creating a hierarchical sensory system integrating visual, auditory, and circulatory rhythms. As the villa's first "public-display" space, it signifies Hadrian's architectural reaffirmation of tangible rulership after experiencing the empire's tactile reality.

Imperial Palace and Guard Barracks

A critical development involved establishing an introverted "palatial core" on the villa's northern high ground for daily residence, administration, and ceremonial appearances. The palace featured encircling porticoes and annexes opening to inner courts, facilitating ritual orchestration while enabling controlled imperial visibility. Concurrently, Praetorian barracks and service quarters were constructed south of the palace. This layout ensured security while reflecting a "proximity without exposure" power logic—particularly given Hadrian's stable military relations (e.g., early support from Praetorian

Prefect Turbo). Access to private quarters via discreet corridors demonstrated control through spatial sequencing rather than overt display.¹⁴

Canopus (Construction Initiated, Commemorative Significance Later)

This axial water feature at the villa's southern edge centers on a 120-meter artificial canal flanked by statued colonnades, terminating in a domed hall and small temple. Brickstamps and stratigraphy confirm foundational work began post-AD 125 (late Phase II).¹⁵ Initially conceived for banquets, leisure, and exhibiting "Eastern experiences," its axiality and colonnades recall coastal Anatolian and Corinthian architectures from Hadrian's first tour. Its namesake—Egypt's Canopic port—demonstrates deliberate spatialization of geographical memory. The site's commemorative weight emerged only after Antinous' death in AD 130. A concealed aqueduct linking the terminal temple to southern highlands created a symbolic "sacred-river-temple-axial landscape" structure.¹⁶ This later integrated visually and functionally with the Phase III Antinoeion, forming a commemorative-cultural hybrid. Thus Canopus—begun in Phase II but elevated commemoratively in Phase III—used water as axis and columns as ritual boundaries, expressing Hadrian's Eastern affinity while transmuting personal memory into imperial symbolism.

Phase III (AD 125–138 CE): Completion of Memorial Space and Systemic Integration

Following his first grand tour (AD 121–125), Hadrian embarked on a second more extensive journey starting in AD 126, traveling from Sicily through Greece, Asia Minor, Syria, Judea, and finally Egypt. After Antinous drowned in the Nile in AD 130, Hadrian initiated large-scale memorial projects including naming cities, erecting statues, and ultimately constructing commemorative architecture at Tivoli. This phase focused on memorialization, integration, and axial design, expanding and connecting earlier structures while strengthening ceremonial axes to form a highly structured final spatial system.

Antinoeion (Temple of Antinous)

The Antinoeion ranks among the villa's most significant memorial structures. Situated on a southern elevated platform, its rectangular foundation centered on a temple-like structure surrounded by three curved exedrae, blending Greek colonnades, Egyptian obelisk bases, and Roman commemorative walls. Misidentified until F. Mari and M. Sgalambro's 2002 excavations confirmed it as a memorial complex for Antinous.¹⁷

Excavated materials—marble statue fragments, Eastern stone elements, and altar remains—verify its ritual function and elevate imperial mourning to ceremonial status. Positioned at the geometric center of the southeastern platform, it established a deliberate axial relationship with the Canopus complex. The latter's pool, statues, terminal temple, and subterranean aqueduct visually and symbolically converge toward the Antinoeion, infusing the ensemble with fluidity and commemorative power.

This "memorial axis" organically links water features, colonnades, symbolic pathways, and temple architecture, transforming the villa from imperial residence into a landscape of philosophy and mourning. The Antinoeion's construction constituted not merely architectural action but a political symbolization converting personal memory into spatial primacy.¹⁸

Expansion of Earlier Structures and Subterranean Integration

Phase III systematically reorganized earlier buildings, most notably through

underground service networks. During 2009–2010, De Franceschini and Marras identified via electrical resistivity tomography and magnetometry a tunnel network beneath the Accademia plateau connecting to the Large Baths and Poecile.¹⁹

These 1.3–1.5m wide passages featured ventilation shafts and light wells for servants and logistics. Key corridors linked kitchens, boiler rooms, and storage areas, forming a true "invisible circulation system." Their organization reflects Hadrian's consistent "spatial hierarchy" principle: establishing political symbolism above ground while engineering efficient order below.²⁰ Tunnel routing complemented visual transitions—e.g., integrating the Poecile's northern subterranean structures with the western Small Baths service zone. Archaeological parallels with Piranesi's 18th-century sketches confirm permanent rather than provisional construction.²¹ Beyond operational efficiency, these extensions constructed a rhythm of power between "above-ground visibility" and "below-ground invisibility,"

Systematic Ritual Nodes (Peripheral Monuments)

Phase III construction included smaller-scale ritual nodes at axial termini, spatial transitions, and visual apertures—miniature colonnaded halls, balustraded platforms, stepped viewpoints, and single-column statue bases. Though subsidiary, they performed crucial connective, transitional, and intensifying functions.

enabling architectural orchestration of imperial presence and absence.

For example, a focal platform terminating the ramp between Canopus and Antinoeion featured mosaic flooring and echo-enhancing side galleries to heighten perceptual tension toward the memorial axis. Similarly, the Poecile's western arched vista framed a transverse gateway directing secondary paths toward the library boundary, creating "controlled depth" scenography.²² These interventions choreographed visual experience into a progressive "sight-rhythm-perception" system, relying not on monumental axes but microscale rhythm modulation. As functional elements and spatial rhetoric, they materialized Hadrian's late architectural philosophy at its most refined.²³

- 1. Dio Cassius, Roman History, 69.2–3.
- 2. Anthony R. Birley, Hadrian: The Restless Emperor (London: Routledge, 1997), 103–109.
- 3. Ibid., 110–112.
- 4. William L. MacDonald and John A. Pinto, Hadrian's Villa and Its Legacy (New Haven: Yale University Press, 1995), 33–35.
- 5. Ibid., 34–36.
- 6. Janet DeLaine, "The Baths of Hadrian' s Villa," Papers of the British School at Rome 65 (1997): 141–157.
- 7. MacDonald and Pinto, Hadrian's Villa, 36–38.
- 8. Ibid., 39-41.
- 9. Ibid., 42.
- 10. Ibid., 43.
- 11. Ibid., 43.
- 12. Antigone Journal, "Walking with the Emperor: Poecile and the Ethics of Pace," 2024.
- 13. William L. MacDonald and John A. Pinto, Hadrian's Villa and Its Legacy (New Haven: Yale University Press, 1995), 51–52.
- 14. Anthony R. Birley, Hadrian: The Restless Emperor (London: Routledge, 1997), 112-114.
- 15. Janet DeLaine, "The Baths of Hadrian' s Villa," Papers of the British School at Rome 65 (1997): 144–146.
- 16. Mary T. Boatwright, Hadrian and the Cities of the Roman Empire (Princeton: Princeton University Press, 2000), 204.
- 17. Filippo Mari and Marina Sgalambro, *Antinoeion: Il complesso monumentale dedicato ad Antinoo a Villa Adriana* (Rome: Electa, 2007), 9–13.
- 18. Ibid., 14–21.
- 19. Marina De Franceschini and Anna Maria Marras, "New Discoveries with Geophysics in the Accademia of Hadrian' s Villa," *Advances in Geosciences* 24 (2010): 3–13.
- 20. Ibid., esp. Fig. 2–3.
- 21. Ibid.; comparison with Piranesi, *Pianta Generale della Villa Adriana*(1781).
- 22. MacDonald and Pinto, Hadrian's Villa and Its Legacy, 59-60.
- 23. Pier Federico Caliari, Tractatus Logico Sintattico: La forma trasparente di Villa Adriana (Milan: Christian Marinotti Edizioni, 2012), Tavola VII.

2.3 The Rediscovery

I .Imperial Afterglow: The Decline and Abandonment of Hadrian's Villa

- 1. Succession and Limited Continued Use After Hadrian's Death (138–161 AD) Following Emperor Hadrian's death in AD 138, his successor Antoninus Pius (r. 138–161 AD) maintained and briefly used the villa, though not residing there long-term as Hadrian had. Archaeological studies confirm that certain structures (e.g., the Canopus pool area and select baths) remained functional for imperial leisure and diplomatic receptions during this period, albeit with significantly reduced frequency.¹ Sculptures and artworks within the villa were not yet removed on a large scale.²
- 2. Functional Transformation and Partial Use (Late 2nd–3rd Century)
 As the Roman Empire grappled with severe political-economic crises from the late 2nd to 3rd century, the villa gradually lost imperial upkeep. Excavations reveal adaptive reuse of former ceremonial/reception spaces for administrative or military purposes—including conversion to granaries and temporary housing.³ Stratigraphic and artifact analysis confirms continued occupation in some buildings, but structural deterioration progressed, and artistic decorations ceased to be preserved.⁴
- 3. Progressive Dismantling and Destruction (Late 3rd–4th Century)
 Beginning under Emperor Aurelian (r. 270–275 AD), construction materials (marble, carved decorations, brickwork) were systematically stripped for Rome's defenses and urban projects. This state-sanctioned spoliation intensified through the 4th century, peaking under Diocletian (r. 284–305 AD), accelerating severe structural damage.⁵
- 4. Christianization and Cultural Shift (c. 400 AD)

The empire's Christianization marginalized the villa as it no longer aligned with new socioreligious needs. Archaeological evidence shows informal occupation for agriculture and rudimentary habitation, with excavated farming tools and domestic items confirming its transition from imperial residence to

agrarian use.7

- 5. Barbarian Invasions and Regional Decline (Around 410 AD)
 After Alaric's sack of Rome (AD 410), the Tibur region suffered indirect socioeconomic collapse. Though no records confirm direct attacks on the villa, environmental degradation accelerated its decline. Surveys show sharply reduced human activity and material traces, reflecting deteriorated security and economic sustainability.8
- 6. Gothic War and Military Requisition (535–554 AD)

 During the 6th-century Gothic Wars, the villa was repurposed for military use.

 Procopius accounts and modern excavations verify its requisition by Gothic and Byzantine forces as temporary barracks/storage. Burnt debris, weapon fragments, and military supplies attest to significant conflict-related damage.⁹
- 7. Final Abandonment to Medieval Quarry (Late 6th–10th Century)
 After the late 6th century, the site ceased sustained habitation. Over subsequent centuries, locals systematically scavenged materials for houses, churches, and infrastructure. Excavated 8th–10th century *spoliation layers* confirm its final transformation into a quarry before complete burial.¹¹ 12

- 1. Boatwright, M.T. (2004). Hadrian and the Cities of the Roman Empire. Princeton University Press.
- 2. Claridge, A. (2010). Rome: An Oxford Archaeological Guide. Oxford University Press.
- 3. Platner, S.B., & Ashby, T. (1929). A Topographical Dictionary of Ancient Rome. Oxford University Press.
- 4. Mari, Z. (2012). Villa Adriana: mito e realtà. L'Erma di Bretschneider.
- 5. Richardson, L. (1992). A New Topographical Dictionary of Ancient Rome. Johns Hopkins University Press.
- 6. Veyne, P. (1987). L' Empire gréco-romain. Editions du Seuil.
- 7. Heather, P. (2005). The Fall of the Roman Empire: A New History of Rome and the Barbarians. Oxford University Press.
- 8. Gibbon, E. (1776–1789). The History of the Decline and Fall of the Roman Empire. Strahan & Cadell.
- 9. Procopius. (553). De Bellis (The Wars), Book VI.
- 10. UNESCO World Heritage Centre. (1999). Villa Adriana (Tivoli) Nomination Dossier. UNESCO.
- 11. Ward-Perkins, B. (1984). From Classical Antiquity to the Middle Ages: Urban Public Building in Northern and Central Italy, AD 300–850. Oxford University Press.
- 12. Mari, Z. (2012). Villa Adriana: mito e realtà. L'Erma di Bretschneider.

II. From Oblivion to Identification: Rediscovery from the Late Middle Ages to the Renaissance (1350–1700AD)

1. Vague Local Awareness in the Late Middle Ages (1350–1450AD)

After centuries of abandonment and structural plundering, Hadrian's Villa only gradually re-entered public consciousness in the late 14th century. This rediscovery was not abrupt but a slow, intermittent process of cognitive reconstruction, deeply influenced by medieval philology, humanist archaeology, and art-collecting trends.

Scholars and local nobility likely first noticed the villa again in the late 14th or early 15th century. According to historical geographer Carlo Fea, as early as the 1380s, clergy and jurists in Tivoli had discovered numerous ancient brick stamps and sculptural fragments in fields, preliminarily recognizing these remains as belonging to an imperial residence from the Roman era.¹

- 2. Renaissance Humanism and Historical Identification (1450–1500AD)

 Not until the latter half of the 15th century, when the Renaissance revived classical culture, did humanist scholars definitively identify the site as "Villa Hadriani." A key development was antiquarian Flavio Biondo' s assertion in *Roma Instaurata* (1444) and *Italia Illustrata* (1474) that the architectural ruins south of Tivoli constituted Hadrian' s palace.² This conclusion was adopted by Poggio Bracciolini and others, rapidly disseminating among scholars and collectors.³
- 3. Papal and Aristocratic Excavations and Artifact Appropriation (1500–1570AD)

In the early 16th century, the villa attracted nobles and papal patrons for excavation and collection. In 1503, Pope Julius II launched systematic digs in the western sector to procure classical sculptures for Vatican gardens.⁴ Concurrently, artists like Raphael and architects such as Bramante drew inspiration here, influencing Renaissance artistic styles in Rome.⁵

4. Ligorio and Contini: Transition from Speculative Images to Measured Plans (1570–1700AD)



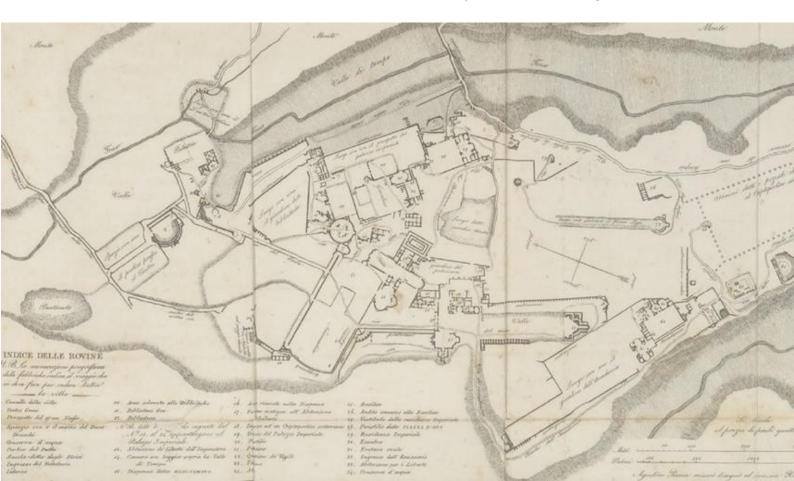




Fig2.3.1 The seated Muse statues (Calliope) displayed in the "Room of the Muses" at the Museo del Prado, Madrid. Originally excavated from the Odeum area of Hadrian's Villa (Villa Adriana) during the 16th–17th centuries, restored by Ercole Ferrata in the 17th century. Image by Carole Raddato (2014)

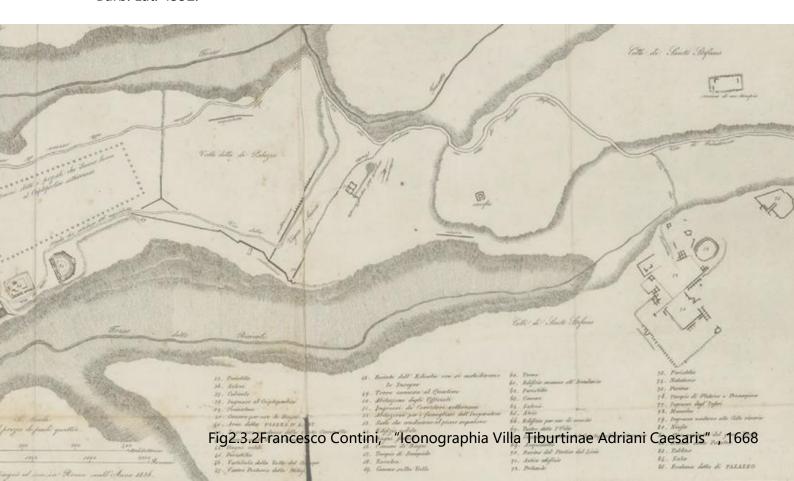
In the 1570s, architect Pirro Ligorio conducted detailed field surveys and produced the first comprehensive plan of Hadrian's Villa as part of his *Antiquae Urbis Imago* series. Though incorporating imaginative reconstructions, it provided foundational knowledge of the villa's structural framework and spatial distribution.⁶

By the late 17th century, research shifted toward empirical rigor. In 1668, architect Francesco Contini completed the first systematic *Pianta generale di*



Francesco Contini, "Iconographia Villa Tiburtinae Adriani Caesaris", 1668 *Villa Adriana* (General Plan of Hadrian's Villa) under papal commission. Based on field surveys, it accurately documented the scale and relative positions of areas including the Pecile, Canopus, and Accademia for the first time.⁷ Contini's plan, notable for its structural integrity and archaeological value, became a foundational text for Enlightenment archaeologists and illustrators like Piranesi.

- 1.Fea, C. (1831). Miscellanea filologica, critica e antiquaria. Roma: Tipografia Baglioni, pp. 127–128.
- 2.Biondo, F. (1474). Italia Illustrata. Roma.
- 3. Weiss, R. (1969). The Renaissance Discovery of Classical Antiquity. Oxford University Press, pp. 105–107.
- 4. Haskell, F., & Penny, N. (1981). Taste and the Antique. Yale University Press, p. 18.
- 5.Frommel, C. L. (1994). Der Vatikan als päpstliche Residenz und Museum. In: Der Vatikan. Stuttgart: Belser Verlag, pp. 203–210.
- 6.Camerlenghi, N. (2006). Pirro Ligorio's Antiquae Urbis Imago and the Image of Roman Memory. Memoirs of the American Academy in Rome, 51, pp. 107–129.
- 7.Contini, F. (1668). Pianta generale di Villa Adriana. Biblioteca Apostolica Vaticana, Cod. Barb. Lat. 4352.



III. The Villa's Legacy in Image and Order: 18th-Century Reconstructions, Collecting Systems, and Cognitive Shifts (1700–1800AD)

1. Institutionalization of Aristocratic Collecting and "Legitimized Extraction" (1700–1750AD)

In the early 18th century, Hadrian's Villa entered a phase of recoding. Under the intertwined influences of aristocratic culture, collecting systems, and Enlightenment archaeology, this period transformed the site's perception beyond mere identification or visualization into a tripartite reconstruction of its "meaning" through image, history, and theory. It was during this era that the villa transitioned from an "original site" of ancient ruins to a "theoretical model" invoked in architectural discourse.

Excavations persisted, primarily funded by families like the Borghese, Farnese, and Colonna, targeting statues and decorative elements. Legitimacy relied on papal or feudal "land-leased excavation rights." While yielding numerous artifacts, this mechanism further disrupted the site's integrity without establishing sustained scholarly continuity.¹

2. Giovanni Battista Piranesi's Visual Reconstructions (1750–1778AD)

By the mid-18th century, architect-engraver Giovanni Battista Piranesi shifted his focus to the villa. Rejecting mere structural replication, he sought to reconstruct a Roman architectural philosophy through images and texts, positioning the villa as its centerpiece. His series *Villa Adriana Illustrata* (1778) embodied this approach: plates combined expressive, imaginatively precise reconstructions with scholarly texts framing the villa as an embodiment of "imperial architectural intent."²

Piranesi' s representations established a "visual order" for the villa: spaces dissected into architectural typologies, forms translated into pictorial language, and ruins unified within an artistic-historical logic. His son Francesco Piranesi reinforced this order in 1781 engravings, cementing a paradigm for 19th-century academic architectural historiography.³



Fig2.3.3 Giovanni Battista Piranesi , Vedvte di Roma, 1779

3. Late 18th Century: State Archaeological Consciousness and Site Demarcation (1780–1800AD)

By the late 18th century, Enlightenment ideals and papal reforms transformed the villa from a privately controlled excavation site into "archaeological heritage" under institutional guardianship. In the 1780s, Pope Pius VI institutionalized monument management, appointing curator-scholar Carlo Fea (1743–1836) as a key agent of this transition.⁴

From the late 1780s to early 1800s, Fea conducted field surveys at the villa, systematically documenting find spots of statues and inscriptions through textual research and field records. In *Miscellanea filologica, critica e antiquaria* (1831) and other writings, he pioneered classifying the villa as "national cultural property" requiring state stewardship.⁵ These works marked the shift from visualization to scientific cataloging and inaugurated modern archaeological heritage management.⁶

- 1.Pinto, J.A. (1976). The Treasures of Hadrian's Villa: A Study in the Formation of the Papal Collections. PhD dissertation, Harvard University.
- 2.Haskell, F. & Penny, N. (1981). Taste and the Antique: The Lure of Classical Sculpture, 1500–1900. Yale University Press.
- 3. Piranesi, G.B. (1764). Antichità d' Albano e di Castel Gandolfo. Roma.
- 4.MacDonald, W.L. & Pinto, J.A. (1995). Hadrian's Villa and Its Legacy. Yale University Press.
- 5.Piranesi, F. (1781–1786). Villa Adriana illustrata. Roma.
- 6.Fea, C. (1831). Miscellanea filologica, critica e antiquaria. Roma: Tipografia Baglioni.
- 7.Weiss, R. (1969). The Renaissance Discovery of Classical Antiquity. Oxford University Press.









Fig2.3.4 *Giovanni Battista Piranesi , Vedvte di Roma, 1779*



Fig2.3.5 *Giovanni Battista Piranesi, "Pianta delle fabbriche esistenti nella Villa Adriana" , 1781*

IV. Transformation Prior to State Takeover and the Institutionalization of Archaeological Understanding (1801–1870 AD)

- 1. French Trusteeship and Napoleonic-era Excavations (1801–1815 AD) In 1801, after France invaded Italy and gained control over the Papal territories, Hadrian's Villa entered a brief period of "French Republic Trusteeship." Driven by the Napoleonic regime's profound interest in classical culture, the site became a "potential source of artifacts" for the Louvre Museum in Paris¹. In 1807, French officials in Italy organized a systematic extraction campaign directed by archaeologist and diplomat Charles Tournon, aiming to acquire intact statues and architectural elements². Although limited in scale, this excavation introduced the operational methods of "archaeological prospection" and "draft documentation" to the villa' s remains, serving as a prelude to modern institutional archaeology³. Concurrently, the French Academy of Fine Arts (Académie des Beaux-Arts) established an internship program at the villa, encouraging scholarship recipients to copy classical fragments there4. This institutional intervention, positioned between scholarship and plunder, endowed Hadrian's Villa with a new role as a "practical site" within the imperial-era art education system.
- 2. Post-Papal Restoration Protection Attempts and Assetization (1816–1846 AD)

Following the collapse of the Napoleonic regime, Pope Pius VII reestablished papal authority and implemented preliminary protection measures for the villa. In 1824, the Pontifical authorities made their first attempt to include portions of the villa in a special administrative register of "Pontifical Real Estate" through the *Edict on the Management of Antiquities-Laden Landholdings* ⁵. Although not fully implemented, this edict established the principles of "site easement rights" and "cultural attribution rights." During the 1830s, archaeologist and historian Antonio Nibby initiated detailed investigations at the villa and published several monographs on its plan, function, and topographic distribution ⁶. Nibby emphasized the historical continuity of the villa as an "architectural museum" (*museo architettonico*),

advocating for its inclusion within the domain of public education and cultural memory. His spatial analyses of the Pecile, Accademia, and Canopus remain widely cited in contemporary academia⁷.

3. Awakening of Archaeological Systems under Nationalist Contexts (1847–1870 AD)

After the 1848 revolutions, the conception of an Italian nation-state gained traction among intellectuals. Hadrian' s Villa was redefined as a "symbol of Italian classical civilization," becoming part of the discourse on cultural unification. Beginning in the 1850s, the transitional government of the Kingdom of Italy engaged in legal negotiations with the Papacy over ownership of the villa and regulatory rights to its artifacts, ultimately leading the latter to establish in 1866 a local ordinance prohibiting "private excavations of antiquities". In 1869, promoted by the Italian Archaeological Society (Società Italiana di Archeologia), archaeologist Pietro Rosa was commissioned to draft structural reconstructions of the villa and conducted partial clearance operations with numbering markers. This constituted the villa' s first "scientific excavation conducted with state financial support," simultaneously laying the technical foundation for its formal incorporation into the national cultural heritage management system the following year.

- 1.Reitz, C. (2010). Napoleon and Antiquity: A Cultural History. University of Chicago Press, pp. 145–148.
- 2.Tournon, C. (1808). Rapport sur les fouilles de la Villa Hadriana. Archives Nationales, Paris, F/17/2956.
- 3.Dyson, S. L. (2006). In Pursuit of Ancient Pasts. Yale University Press, p. 49.
- 4.Haskell, F., & Penny, N. (1981). Taste and the Antique. Yale University Press, pp. 135–137.
- 5.Danti, G. (1895). La legislazione pontificia sui beni archeologici. Roma: Tip. Salviucci, p. 42.
- 6.Nibby, A. (1837). Analisi storico-topografica della Villa Adriana. Roma: Tip. Salviucci. 7.Quilici, L. (1992). "Le ricerche ottocentesche su Villa Adriana." In Archeologia Laziale X, pp. 75–89.
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V. Institutionalized Archaeology and Site Destiny after State Takeover (1871–1945 AD)

1. Institutional Establishment and First Scientific Surveys Post-Unification (1871–1914 AD)

Following Italy's unification and its annexation of Papal territories in 1870, Hadrian's Villa was formally transferred to state archaeological administration, inaugurating a state-directed archaeological era¹. After 1871, through the Archaeology Directorate under the Ministry of Culture and Education, the state incorporated the villa into official heritage inventories and initiated legal demarcation of its boundaries, ownership, and protection systems².

Key achievements during this period emerged in surveying and cataloging. In the 1880s, the state funded the first unified survey of the entire villa complex, producing relatively complete planimetric and structural sketches³. Although termed the "first" systematic mapping, this fundamentally differed from prior private surveys (e.g., Contini's) in institutional affiliation and technical organization. Topographic maps and monument analyses published by archaeologists Rodolfo Lanciani and Luigi Canina laid the groundwork for future spatial archaeology⁴.

2. Academic Intensification and Ideological Intervention Pre-War (1915–1939 AD)

World War I interrupted sustained state investment in the site. Post-war until the mid-1920s, with the rise of Mussolini's regime, Hadrian's Villa reemerged as a key symbol in state cultural propaganda⁵. Under the "Reviving Ancient Rome" ideology, the villa was reimagined as an emblem of "imperial rationality and order," with its imagery featured in architectural yearbooks, public brochures, and educational materials⁶.

During the 1930s, Italy's General Directorate of National Heritage conducted major excavations at the villa, including re-clearance of Canopo's southern sector and attempts to reposition statues. Findings were compiled in the 1938

state publication *Villa Adriana: Monumento Nazionale Illustrato* ⁷. This illustrated volume, featuring perspective views, isometric projections, and axial reconstruction sketches, marked the transition of institutionalized archaeological outputs into public visual dissemination.

3. Wartime Threats and Emergency Safeguarding Measures (1940–1945 AD) After World War II erupted, though Tivoli was not a major combat zone, Hadrian's Villa faced threats from potential airstrikes and looting⁸. In 1942, Italy's Ministry of Culture issued emergency antiquities protection decrees, designating the site as a "Level-1 National Sensitive Asset" and prohibiting all excavation, relocation, or unauthorized research⁹.

Post-war documentation indicates temporary protective earthworks over sections like the Maritime Theatre and Accademia for air-raid sheltering, causing no substantive damage¹⁰. Movable artifacts, including the Antinous bust and Muse statues, were relocated in 1943 to national museums in Rome and Florence for safekeeping, returning post-war.

- 1. Parisi Presicce, A. (2003). La Villa Adriana: le scoperte archeologiche del XIX secolo. Roma: Electa, p. 98.
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- 3.Bevilacqua, M. (1999). "La Villa Adriana nel disegno tra Sette e Ottocento." In La Villa Adriana. Mito e realtà, Electa, pp. 142–145.
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- 5.Adembri, B. (2000). Hadrian' s Villa. Milano: Electa, pp. 118–119.
- 6.Guidobaldi, F. (2002). "La Villa Adriana come paradigma imperiale nel discorso nazionale fascista." In Bollettino d' Arte, 89, pp. 45–49.
- 7.Rossi, L. (1938). Villa Adriana: Monumento Nazionale Illustrato. Roma: Edizioni d' Arte, pp. 10–15.
- 8.Guidi, E. (1946). "Salvaguardia delle antichità durante il conflitto mondiale." Bollettino d' Arte, 58, pp. 22–27.
- 9. Ministero della Cultura e Belle Arti (1942). Decreto di protezione urgente dei beni culturali. Roma, Art. 3–5.
- 10.Archivio Centrale dello Stato, Roma. Fondo BBCC, Fasc. 1943/17: "Misure straordinarie per la protezione della Villa Adriana."



VI. Postwar Reconstruction and Formation of Contemporary Heritage Mechanisms (1946–Present)

1. Postwar Reactivation and Structural Archaeological Revival (1946–1972 AD) In the immediate postwar period, Italy's Ministry of Culture and the Lazio Regional Government swiftly restored oversight of Hadrian's Villa, repairing superficial damage caused by wartime defensive covers¹. This phase prioritized comprehensive site clearance and functional zone reconstruction, particularly re-excavation and structural integration of core areas like Canopo, Pecile, and Teatro Marittimo.

Between 1950–1970, supported by the Italian Central Archaeological Directorate, scholars including Giuseppe Lugli and Salvatore Aurigemma conducted large-scale academic excavations. Employing integrated methodologies—systematic plan reconstruction, functional hypotheses, and pottery fragment analysis—they attempted to reconstruct ritual and daily pathways between villa zones². Research during this period also pioneered aerial surveys and 3D topographic projections, laying foundations for future digital archaeology.

2. Heritage Protection Policies and International Collaboration(1973–1998 AD) From the 1970s, Italy strengthened concepts of "landscape value" and "cultural integrity" within its antiquities legislation. Hadrian' s Villa became a pilot site for *tutela del paesaggio storico integrato* (integrated historical landscape protection)³. Excavations grew more cautious, focusing instead on archaeological data recataloging, statutory regional management, and collaborative publications with international academia.

In the 1980s, French, German, and American research institutions launched joint investigations at the villa. In 1984, the Italian government formally submitted documentation to UNESCO, asserting the villa's "exemplary significance in architectural unity and landscape planning"⁴.

3. UNESCO World Heritage Inscription and Cultural Landscape Redefinition (1999–Present)

In 1999, Hadrian's Villa was inscribed on the UNESCO World Heritage List for its uniqueness in architectural innovation, hydraulic systems, and imperial aesthetic integration⁵. Post-inscription, site management shifted to shared oversight by the Lazio Region and Italy's Ministry of Cultural Heritage, implementing a tiered "open-closed zone" system with visitor controls and sustainable tourism protocols.

4.Post-2000 archaeological research focused on:

- Spatial analysis and landscape reconstruction (Andrea Carandini's theoretical framework framing the villa as a "model of imperial self-perception")
- Philosophical functions of secluded spaces (Zaccaria Mari's excavations at Teatro Marittimo suggesting contemplative retreat purposes)⁶
- Construction logistics (Barbara Ghini's microscopic analysis of building materials tracing quarry sources and workflow rhythms)⁷

Concurrent excavation breakthroughs include:

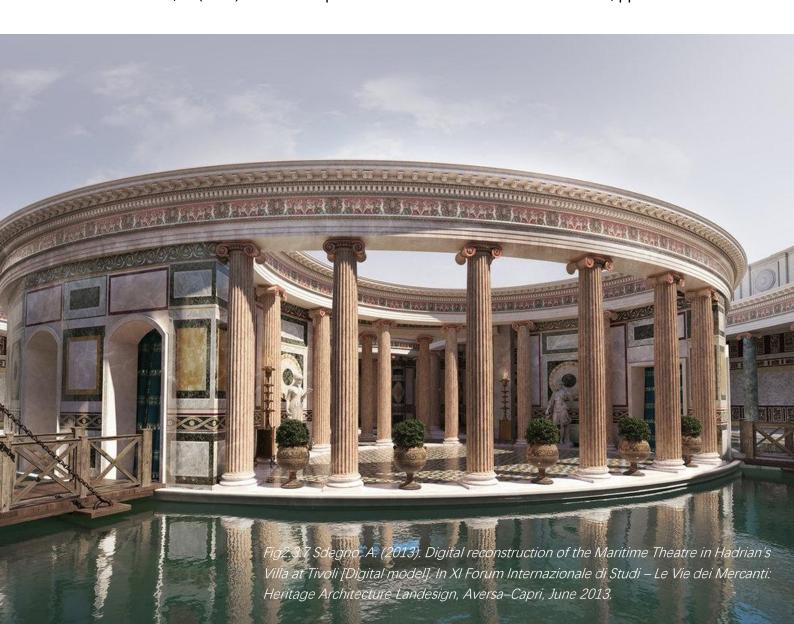
2002–200 Rectangular chambers (possibly late-antique academic spaces) with ash layers and calcitic fragments in the Accademia zone⁸

2006–2010: Complex drainage/heating systems at Grotte di Tartaro revealing hydraulic links to Canopo's landscape⁹

2014–2019: Istituto Villa Adriana's spatial reconstruction project deploying high-resolution ground radar and laser scanning to create the first 3D digital model of the entire complex¹⁰

Tourism metrics: Annual visitors reached 400,000 prior to 2020.

- 1.Guidi, E. (1946). "Salvaguardia delle antichità durante il conflitto mondiale." Bollettino d' Arte, 58, pp. 30–33.
- 2. Aurigemma, S. (1961). La Villa Adriana presso Tivoli. Roma: Colombo, pp. 45–67.
- 3. Ministero per i Beni Culturali e Ambientali (1975). Piano di tutela dei beni archeologici di Tivoli. Roma: BBCCAA.
- 4.Parisi Presicce, A. (2003). La Villa Adriana: le scoperte archeologiche del XIX secolo. Roma: Electa, pp. 145–147.
- 5.UNESCO (1999). Nomination dossier: Villa Adriana (Tivoli), Italy. Paris: World Heritage Centre.
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- 7.Ghini, B. (2011). "Materiali edilizi nella Villa Adriana." Rendiconti Lincei, 22(3), pp. 221–236.
- 8.Mari, Z. (2008). "Nuove indagini nell'Accademia." In Rendiconti della Pontificia Accademia Romana di Archeologia, 81, pp. 211–229.
- 9.Mari, Z. (2012). "Le Grotte di Tartaro nella Villa Adriana: nuovi scavi." Fasti Online, 257, pp. 1–14.
- 10.Adembri, B. (2019). Modelli 3D per la tutela della Villa Adriana. Roma: MIC, pp. 4–19.



VII. Hadrian's Villa's Influence on Modern Architecture and Its Reinterpretation (1911–Present)

1. Inspiration of Spatial Order and Deconstruction of Axis Systems: Le Corbusier and "Fragmented Wholeness"

The earliest profound influence of Hadrian's Villa on modernist architectural thought is exemplified by French architect Le Corbusier's study of the site during his 1911 "Journey to the East." He repeatedly sketched Canopo, water features, curved walls, and open-dome structures of Villa Adriana in his travel notebooks, commenting: "There are no facades here, only ever-changing spatial rhythms"¹.

Architectural historian Geoffrey Baker notes that Le Corbusier's later works—such as *La Tourette Monastery* (1953–1960) and *Ronchamp Chapel* (1950–1955)—reprocessed the villa's fragmented spatial structure through non-axial extensions, sequenced courtyard fragments, and abrupt light-shadow transitions². This coexistence of "irrational axes + rational geometry" embodies a core characteristic of the villa's architectural composition.

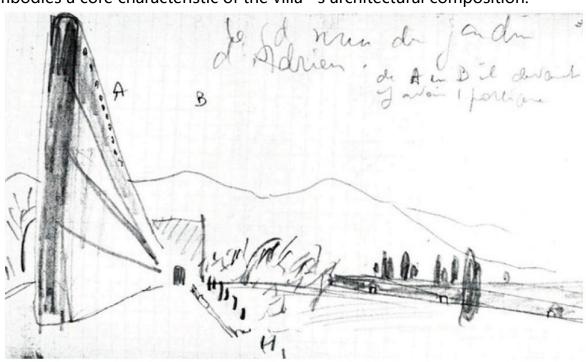


Fig2.3.8 Le Corbusier. *Journey to the East.* Translated by Ivan Žaknić. Cambridge, MA: MIT Press, 1987. Drawing: "Le grand mur du jardin d'Adrien", 1911.

2. Architecture and Memory, Light and Structure: Louis Kahn's "Spatial Spirituality"

American architect Louis I. Kahn is regarded as the modernist who most deeply reconstructed the spirituality of Villa Adriana. He frequently cited the villa's impact on his architectural vision, particularly in *Between Silence and Light*, describing it as a "vessel of spatial memory" and emphasizing its role not as a "functional order but a creator of monumental atmosphere"³. In late works like the *National Assembly Building of Bangladesh* (1962–1983) and the *Kimbell Art Museum* (1966–1972), Kahn adapted the villa's tripartite structure: *arch-light band-water body*. These projects formed enclosed-yet-open, symmetrical-yet-decentered spatial systems with naturally embedded light sources. His colonnade layouts and domed volumes can be seen as abstract responses to Teatro Marittimo.



Fig2.3.9Photo of National Assembly Building, Dhaka (1962–1983), by Louis I. Kahn



Fig2.3.10 Photograph of the Teatro Marittimo, Villa Adriana, Tivoli, Italy.

"In Villa Adriana, I saw that architecture is not form but the boundary of thought."

— Louis I. Kahn, Between Silence and Light, p. 61

3. Spatial Fragments and Collage of Urban Memory: Aldo Rossi and Architectural Typology

Italian architect Aldo Rossi, in his theoretical work *The Autonomy of Architecture*, defined Villa Adriana as an "architectural typological gene," arguing it was not a singular building but an "aggregate of urban memory fragments"⁴. Using archaeological methodology, he integrated the villa's fragmentation, temporality, and stratigraphy into urban design theory. His *Modena Cemetery* project replicated Teatro Marittimo's double-enclosure layout.

Rossi emphasized the villa's "narrative potential," advocating that modern cities should use it as a prototype to construct futures within ruins.

4. Material Temporality and Sensory Place: Contemporary Expressions by Zumthor and Holl

In the field of contemporary architecture, the architectural philosophies of Peter Zumthor and Steven Holl are often compared by some researchers to the spatial experience of Villa Adriana. In his *The Smell of Thoughts*, Zumthor explores how elements such as sound, humidity, and reflections shape the sensory atmosphere in architecture⁵. Although he does not directly mention Villa Adriana, his emphasis on architecture as a multisensory experiential field is considered to resonate with the compound perceptual logic of "water–light–movement" at this site. In the project for the Nelson-Atkins Museum extension (1999–2007), Steven Holl employed a spatial language characterized by elements such as reflective wall surfaces and the horizontal extension of water. In interviews and essays, he has repeatedly expressed his interest in contemplative landscapes and the rhythmic articulation of light and shadow. ⁶

5. Education, Competitions, and Ongoing Inheritance of Cultural Prototypes Beyond direct references, Villa Adriana continuously influences architects through pedagogical frameworks. Le Corbusier, Kahn, Rossi, and Holl all incorporated villa analyses—focusing on planar relationships, spatial syntax, and volume-axis interactions—into their teaching.

Recently, the "Piranesi–Prix de Rome" international competition platform, led by Professor Pier Federico Caliari, has used Villa Adriana as a site model. It guides young architects to explore "contemporary intervention logic within existing historical structures". This mechanism transforms the villa from a research subject into a "living matrix" for ongoing architectural thought production.

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- 3.Kahn, L. (1983). Between Silence and Light: Spirit in the Architecture. New York: Rizzoli, pp. 58–61.
- 4.Rossi, A. (1982). L' architettura della città. Milano: Clup, pp. 144–146.
- 5.Zumthor, P. (2006). Atmospheres: Architectural Environments Surrounding Objects. Basel: Birkhäuser.
- 6. Steven Holl, Architecture Spoken, New York: Rizzoli, 2007, pp. 128-133.
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2.4 Buffer zone

1. Establishment and Evolution of the Buffer Zone System

Following Hadrian's Villa's inscription on the UNESCO World Heritage List in 1999, heritage protection entered a systematic phase. UNESCO mandated the creation of a visual and landscape-extended protected area beyond the core site—termed the **Buffer Zone mechanism**. Initially demarcated based on the archaeological boundaries, it integrated natural topography, historical land-use patterns, and sightline control logic to form an outer ring aimed at shielding the site from urban development pressures¹.

This mechanism entered a dynamic revision phase from 2006 onward. Confronted with expanding peripheral construction in Tivoli and local transport systems' potential impacts on the villa' s visual axes and ecological integrity, Italy' s Central Cultural Heritage Directorate and Lazio Regional Planning Department jointly proposed boundary adjustments. The expanded buffer zone—approved by UNESCO in 2013—incorporated broader surrounding landscapes, extending southwest to the Aniene River valley and southeast to urban transitional zones, establishing a "ribbon-like protection mechanism" from the site to the urban fringe².

2. Spatial Logic and Functional Framework

The current buffer zone encompasses foothills, valleys, terraces, and open fields surrounding the core site, forming a topographically stratified protective layer. Structurally, it comprises three functional sectors:

- Visual Corridor Protection Belt: Primarily northwest of the site and along the Canopo–Marittimo axis, preserving historical sightlines between the villa and surrounding hills;
- Agricultural and Ecological Buffer: Including areas southwest of Pecile, San Raffaele Hills, and the Aniene's northern bank, providing microclimate regulation and land-memory preservation;
- Urban Interface Zone: Directly adjacent to Tivoli's southeastern urban boundary, functionally poised for interaction yet currently disconnected³.

These sectors operate under fragmented regulatory regimes (urban construction controls, agricultural preservation, archaeological terrain restrictions), sustaining "low-intervention" states. Paradoxically, while spatially enveloping the villa, the buffer zone institutionalizes "inaccessibility" between the site and the city.

3. Disjunction and Potential in Urban-Heritage Relations

Despite safeguarding the villa's historic landscape integrity, the buffer zone generates governance tensions. It successfully halted urban encroachment but failed to foster genuine connections between the villa and residents.

Southern/southwestern zones—though UNESCO-protected—lack infrastructure, access routes, and public space definitions, rendering them "institutionally functional yet practically unused" voids4.

For urban residents, the zone offers no daily utility, educational resources, or cultural facilities, remaining inaccessible and unintelligible. For heritage management, this structural "boundary" achieves physical isolation but stifles cultural reproduction.

Consequently, recent research advocates redefining the buffer zone: from an "exclusionary margin" to a "structural mediator" linking city and site, history and present. Through spatial narratives, public interventions, and strategic reprogramming, it could transform from a mono-functional space into a cultural incubator⁴.

4. Forgotten Pathways at the Buffer Edge: Spatial Memory of Villa Adriana's Western Entrance

Villa Adriana' s western buffer zone—particularly the lowland area before the Pecile terrace—historically persisted as a rural landscape of olive groves and farmland⁵. This "non-urbanized," low-intervention state preserved the area during modern development, providing critical evidence for reconstructing the villa' s original spatial organization. Today, however, it exists as a fenced wasteland: excluded from visitor routes, lacking management protocols, and

epitomizing the buffer's "protected yet unused" condition.

Archaeological and Textual Evidence: Ceremonial VIP Entrance Substantial evidence confirms this pathway served as a ceremonial entrance:

- Excavated plans revealing dual-paved corridors, aligned sequentially with nodes (Antinoeion, Cento Camerelle, Grande Vestibolo), reflect its structured processional function (e.g., reception protocol).
- Historical texts explicitly designate Grande Vestibolo as the reception point "for important visitors arriving by horse or wheeled conveyance"⁷— topographically matching the pathway's terminus. Spatial sequence and location thus indicate this was likely Villa Adriana's *primary ceremonial entrance*.
- Antinoeion' s proximity to the path—serving as both visual anchor and ritual node—further corroborates its ceremonial role⁶.

While the available evidence cannot conclusively identify this path as an 'imperial-exclusive entrance', cumulative analysis of nodal structure, functional use, and ritual orientation provides robust logical evidence for its processional purpose.

Spatial Experience: Ritual Sequence and Propylaia Analogy
The path ascends from lowland, progresses axially through Antinoeion's ritual space, traverses Cento Camerelle, and culminates at Vestibolo—a narrative progression mirroring the sacred approach via the Athenian Acropolis' Propylaia. Though no direct scholarly parallel exists, the spatial rhythm (secular—ritual—core) constitutes a Propylaia-like archetype.

Prof. Pier Federico Caliari's research identifies perceptible multi-axial systems in the villa's topography and architecture. These asymmetric axes—perceived through vistas, paths, and nodes—support reading the Antinoeion–Vestibolo path as a rhythmic ceremonial experience⁸.

Regrettably, this historic path is ignored in modern visitation. Legally protected yet functionally marginalized, it lacks public recognition or adaptive

reuse. Critically, its potential as a ritual-cultural spatial link between Villa Adriana and Tivoli remains suppressed by policy inertia—"protected" but never activated.



Fig.2.4.2 Analytical map of the historical western access route to Villa Adriana.

- 1.UNESCO World Heritage Centre, Villa Adriana (Tivoli), Advisory Reports 1999–2013.
- 2.Ministero della Cultura / Regione Lazio, Modifica e ampliamento della buffer zone del sito UNESCO Villa Adriana, Roma, 2013.
- 3.Regione Lazio, PTPR Ambito 5b "Valle dell' Aniene", 2010, tav. 6.
- 4.L. Marino, "Per una riattivazione culturale delle buffer zone: riflessioni su Villa Adriana," in Paesaggi Latenti, Edizioni Quodlibet, 2019.
- 5.Regione Lazio, Carta dell' uso storico del suolo, 1988–2005.
- 6.Zaccaria Mari & Sergio Sgalambro, "The Antinoeion of Hadrian' s Villa: Interpretation and Architectural Reconstruction," American Journal of Archaeology 111.1 (2007): 83–104.

7. Virtual World Heritage Laboratory (VWHL), "Grande Vestibule and Entry Sequence," Indiana University, excavation report: https://vwhl.soic.indiana.edu/villa/vestibule.php 8. Pier Federico Caliari, "Il sistema di assi e di polarità nella didattica progettuale della Villa Adriana," in Villa Adriana. Accademie e Progetti, Roma: Accademia Adrianea, 2017, pp. 25–33.



3 The Re-emergence of Place: From Villa Water Features to Contemporary

Construction

The genesis of Villa Adriana was not an isolated creation but deeply rooted in the highly engineered water supply systems matured during the Roman Empire. Situated between Tivoli's highlands and the Roman plains, the site leveraged natural elevation gradients to draw abundant water from the Aniene River and its tributaries. From its inception, the villa's design transcended mere hydrological dependency, transforming water—a functional medium—into the core lexicon for spatial organization and meaning-making. Villa Adriana is less an architectural complex than a ritual landscape shaped by water.

As later analysis will demonstrate, water's role extended far beyond baths, pools, or canals, permeating every layer of visual composition, path rhythm, and mnemonic structure. Canopo's linear reflective axis, Teatro Marittimo's annular channel, and Pecile's rectangular mirrored water feature all utilized water to achieve spatial self-reference, repetition, and deconstruction. Such spatial alchemy relied precisely on meticulous control of environmental variables: flow velocity, surface texture, acoustic reverberation, and humidity.

Yet, as depicted in 18th–19th-century vedute by Giovanni Battista Piranesi and Fragonard, Canopo and Pecile's waters had long dried up by then, their stone skeletons exposed amidst wild grasses—icons of imperial ruination. Only after mid-20th-century reconstructions—based on early cartography, drainage remnants, and aqueduct archaeology—were the villa's original hydrology and operational logic gradually revealed. This process not only enabled partial water feature restorations but also illuminated how Hadrian wielded water as a medium to construct a philosophical grammar of space.

This reawakening extends beyond archaeological reconstruction. From Mies van der Rohe's 1929 Barcelona Pavilion to Carlo Scarpa's 1970s Tomba Brion, modern and contemporary works exhibit profound sensitivity to

water's poetic deployment—mirrored reflections, aquatic boundaries, humidity gradients, and accessibility strategies resonate subtly yet powerfully with Villa Adriana's spatial operations. These projects inherit classical hydrologic logic while offering vital paradigms for contemporary practice.

Subsequent discussion explores interventions that amplify or reactivate the Genius Loci—whether through museums, landscape installations, or reimagined pathways—providing critical inspiration for the design proposal to follow.



Fig.3.1.2:Water Features in Hadrian's Villa

3.1 Water Features and Hadrian's Villa

The comprehensive planning of Villa Adriana was profoundly dependent on the highly advanced water supply system of ancient Rome. By strategically utilizing the elevation differences of Tivoli, water was channeled from the Aniene River system into the villa complex, flowing through various aquatic architectural features¹. Water served not only as the foundation for daily sustenance but also became Hadrian's medium for spatial inscription: from elongated reflecting pools, enclosed water islands to functional bathing complexes, each nodal point of the Villa was interconnected through water, weaving a spatial network that symbolized imperial order and personal philosophical contemplation².

Water features not only physically demarcated space but also connected memory, power, and journeys at perceptual and symbolic levels. Fig.3.1.1 illustrates the historical and current distribution of water features within the Villa Adriana complex: blue indicates reconstructed water surfaces, while teal marks ancient water features confirmed through archaeological research but no longer extant. All currently visible water surfaces in the site are maintained by artificial water supply systems, relying on modern pipelines and pumping stations, requiring periodic water replacement. These no longer possess the ecological self-sufficiency and engineering complexity inherent in the ancient continuous gravity-fed water systems³.

Hadrian's arrangement of water features in the villa reflects a highly personalized, philosophical spatial language system. His focus extended beyond the technical distribution of water supply routes to how water features could create structural rhythms and perceptual cues, projecting his travel memories and cultural aspirations. As William L. MacDonald noted, the water landscapes in Villa Adriana not only "composed walkable pictures" but more importantly represented *"the emperor's extended spatial text for translating imperial experiences"* ⁴.

Pecile: The Mirror and Philosophical Corridor

As one of the earliest established primary axes in Villa Adriana's spatial layout, Pecile stands out as one of the most explicitly water-centric architectural compositions. Situated on the western high ground of the villa, this rectangular enclosed space features a colonnaded perimeter surrounding a central reflective pool. Its form closely resembles Athens' Stoa Poikile (Painted Stoa), leading scholars to widely regard it as Hadrian's reinterpretation of Greek architectural typology⁵.

The central pool's axial length of approximately 120 meters served as one of the villa's key spatial measurement benchmarks. More significantly, this elongated water feature established a tripartite experiential mechanism combining vision, rhythm, and bodily movement: sunlight, columns, and visitors' reflections intermingled on its surface, where the walking path became compositional rhythm, and observation transformed into spatial participation. This synthesis of reflection, water sounds, and pedestrian cadence may represent Hadrian's spatial translation of the Greek philosophical principle of "contemplative introspection."



In Figure X,
Pecile's water
feature appears as
reconstructed
during 20thcentury
archaeological
restoration.
Currently
maintained
entirely through

artificial filling and drainage systems, it cannot replicate the ancient self-regulating gravity-flow mechanism⁷. Nevertheless, its spatial language as both visual mirror and psychological reflective apparatus remains the prototype for the villa's overall aquatic composition.

Canopus, Serapeum and Antinoeion: Axis, Ritual and Hydraulic Commemoration

The Canopus complex undoubtedly represents Villa Adriana's most dramatic and culturally syncretic water feature. Flanking its 119-meter-long, 18-meter-wide central canal stand continuous colonnades with human and divine sculptures, extending northward in perfect symmetry toward the semi-domed dining structure called Serapeum⁸. This composition simultaneously evoked Egypt's Canopic Delta region while synthesizing spatial impressions from Hadrian's travels through Greece, Syria and Egypt, creating a composite memorial landscape⁹.

Hydraulically, Canopus' true engineering focus lay not in its water surface but in Serapeum's northern terminus. Water entered naturally from eastern channels, flowed through the structure, then fed the main axial canal. This design utilized terrain gradients to create a pump-free continuous flow while intensifying the ritual progression from origin (Serapeum) through passage (canal) to destination. Sgalambro notes this hydraulic system likely served triple functions: sensory modulation, spatial definition, and ritual guidance¹⁰.

This design logic - moving from sacred space (Serapeum) through water into commemorative landscape - was uncommon in Roman architecture but finds interesting parallels in Nero's Domus Aurea. Larry Ball observes how the Golden House's water surfaces, domes and reflective systems created "a theater of light and water"¹¹. While no evidence confirms Hadrian consciously referenced Nero's design, their shared spatial mechanism of "water-architectural core-sensory ritual" suggests transgenerational formal dialogue.

Notably, just east of Canopus' main axis stands Antinoeion, a memorial to Hadrian's beloved Antinous featuring Egyptian-style walls and temple plans. Though not strictly axially aligned, archaeologists Zaccaria Mari and Sergio Sgalambro identify a "perceptual axial resonance" between Canopus and Antinoeion¹². This arrangement provided visual focus for commemorative space while deepening the landscape's narrative stratification.





Fig.3.1.5 Hadrian's Villa, Serapeum, 2023, Tivoli, Italy. Personal photograph



Fig.3.1.6 Interior of the Octagonal Hall, Domus Aurea (Nero's Golden House), Rome. Photograph



Teatro Marittimo: The Enclosed Water Ring and Island of Contemplation

Among all water features in Villa Adriana, the most introverted and isolated example is perhaps the circular island structure known as Teatro Marittimo. Located in the villa's core area, this architectural ensemble - consisting of corridors, small courtyards, quiet chambers, and miniature baths - is completely encircled by a continuous annular water channel. Connected only by a wooden bridge, the water channel serves both as physical barrier and rhythmic delay in the approach sequence¹³.

Though its naming reflects later interpretations, the layout and scale suggest functions far beyond public performances, pointing rather to a secluded meditation island. MacDonald observes that this space appears designed for "solitary retreat," where miniature gardens and encircling waters create a "microcosm that contracts the body while amplifying perception" Here water performs not as spectacle but as boundary - excluding external viewers while immersing the self in closed circulation.

De Franceschini's hydraulic analysis reveals this channel differs significantly from other major water features: rather than serving drainage functions, it operated as a static pool, likely replenished through bypass channels or underground cisterns¹⁵. This unique trifecta of non-functional, symbolic, and sensory water usage stands apart within Villa Adriana.

In Hadrian's philosophical program, Teatro Marittimo may represent his spatial response to "Stoic introspection" - akin to the rhetorical topos of the island, it materializes both physical retreat and mental exercise. Contrasting sharply with open axial waterscapes like Pecile and Canopus, its reversed scale and directionality create contrapuntal thinking within the villa's aquatic logic.

Bath Complexes and Service Systems: Vanished Waters and Network Memory

The Grandi Terme (Large Baths) and Piccole Terme (Small Baths) represent the pinnacle of functional water systems in Villa Adriana - prioritizing not reflection, rhythm or narrative, but the technical network of supply-drainage-heating. Distributed across central-eastern sectors, these structures formed an independent hot water management system through underground cisterns, hypocaust heating, and wall tubing (tubuli)¹⁶.

While main structures remain identifiable today, original pools, tanks, heating channels and ceramic piping have largely disappeared. Archaeological reconstructions and De Franceschini's analyses indicate these baths relied on southern feeder channels from the villa's high ground, with settling cisterns distributing thermally graded water¹⁷. Hydraulic flow dictated spatial hierarchy - from frigidarium through tepidarium to calidarium.

These bath complexes not only replicated quintessential Roman urban spaces but also blurred private-public boundaries: Grandi Terme followed palatial symmetrical organization, while Piccole Terme's enclosed layout possibly served women or close associates¹⁸. Here water functioned simultaneously as intimate cleansing medium and structural force for social interaction/status differentiation.

Though now vanished, these waters constituted the most concealed yet sophisticated hydraulic layer. Unlike Pecile's static mirrors, Canopus' axial monumentality, or Teatro Marittimo's meditative borders, the baths emphasized circulation, heating and distribution - epitomizing the villa's "technological philosophy" of water. Operating through subterranean and intramural channels, they formed the invisible yet vital substratum sustaining daily spatial practices.

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- 5.Boatwright, Mary T., Hadrian and the Cities of the Roman Empire, Princeton University Press, 2000, pp. 33–36.
- 6.MacDonald, William L., The Architecture of the Roman Empire, Volume II, Yale University Press, 1986, pp. 131–132.
- 7.De Franceschini, Marina. Villa Adriana: Mosaici, pavimenti, edifici, L' Erma di Bretschneider, 2005, pp. 47–48.
- 8.De Franceschini, Marina. Villa Adriana: Mosaici, pavimenti, edifici, L' Erma di Bretschneider, 2005, pp. 174–181.
- 9.MacDonald, William L., The Architecture of the Roman Empire, Volume II, Yale University Press, 1986, pp. 142–145.
- 10.Sgalambro, Sergio, "Water and Ceremony in Hadrian' s Villa," in Villa Adriana. Architettura e Paesaggio, Electa, 2014, pp. 66–68.
- 11.Ball, Larry F., The Domus Aurea and the Roman Architectural Revolution, Cambridge University Press, 2003, pp. 203–206.
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- 14.MacDonald, William L., The Architecture of the Roman Empire, Volume II, Yale University Press, 1986, pp. 137–140.
- 15.De Franceschini, ibid., p. 99.
- 16.De Franceschini, Marina. Villa Adriana: Mosaici, pavimenti, edifici, L' Erma di Bretschneider, 2005, pp. 151–165.
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3.2 Case study



1. Liangzhu Museum (David Chipperfield Architects)

David Chipperfield' s design for the Liangzhu Museum uses four long, thin volumes arranged in a row, with courtyards between them. This arrangement creates a clear rhythm of "movement-quiet-movement" for visitors. When people enter, they cross a bridge over an artificial lake, walk into an open courtyard, and then go inside the museum. This sequence breaks away from the usual straight-line museum paths and effectively adjusts the psychological rhythm of the exhibition.



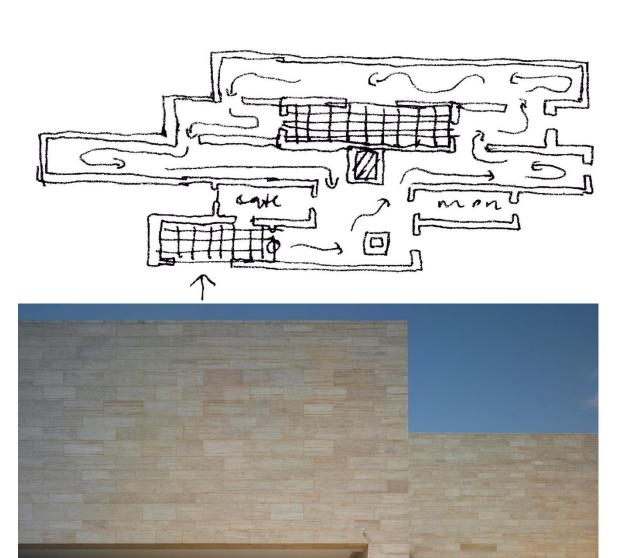
The courtyards work like buffer zones that relieve the eyes and mind. With plants, natural light, and calm water, they offer a calming break from the darker indoor exhibition halls. Here, softened daylight shines on greenery and water, contrasting with indoor spaces where lights are dim and focused on exhibits. This contrast encourages a pause in one's visit, a moment of rest before continuing.

Water plays a vital role, both inside and outside the building. Inside, shallow pools reflect light softly, creating a quiet atmosphere. Outside, the large lake

surrounds the whole museum, acting as a natural boundary and giving the building a floating effect. This is similar to traditional Chinese gardens where



pavilions are built near water to create harmony between architecture and landscape. The outdoor water not only continues the visitor's route, but also adds a sense of layered depth as one moves around the building.



The design of the building echoes the ancient water-city of Liangzhu, with its network of interlaced water channels. The four volumes are slightly shifted, with courtyards interrupting and connecting them, much like the changing views in classical Chinese gardens. There is also a concept of "borrowed scenery," where views from one courtyard to another create continuous visual interest. Together, the lake and inner pools link architecture and water in a single system. In this way, Chipperfield offers a modern interpretation of Liangzhu's historic water-town image, blending stone, water, and space in harmony.

2. Tomba Brion (Carlo Scarpa)



Carlo Scarpa' s Tomba Brion creates a unique experience in a cemetery by mixing materials, light, and water. Instead of a purely solemn place, he introduces life and movement. Through carefully placed slits, niches, and roof openings, Scarpa allows sunlight to enter the spaces differently throughout the day. As the day progresses, the light moves across walls and floors, giving even quiet rooms a sense of change and breathing. It becomes what some call "architecture in time."



Water is a core element in this design. A lotus pond sits in a courtyard, and the surface of the water reflects light and shadows. When the wind blows, the water ripples and the leaves move, making the pond feel alive. This small, natural movement continually animates the scene and brings subtle life into a space that could otherwise feel lifeless. In that way, the cemetery does not remain static; instead, it becomes a place where life and memory coexist.

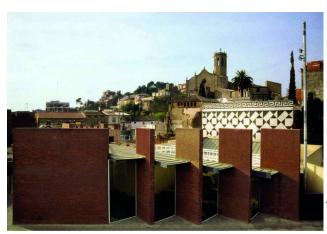


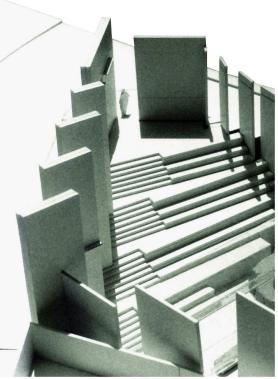
But Scarpa did not let water take over. He carefully balanced water with solid concrete. The concrete walls and platforms provide a quiet, stable background. In contrast, the gentle movement of water and leaves brings softness and vitality. This balance creates a respectful, reflective environment that also feels alive. In that way, Scarpa turns the cemetery into a place not only for remembering the departed, but also for experiencing the presence of life.

3. Museo de las Termas Romanas, Sant Boi de Llobregat (Arriola & Fiol Arquitectes)



At the museum of the Roman baths in Sant Boi de Llobregat, the designers chose to protect the archaeological ruins with a modern structure that serves as an "enhancement." Instead of building walls around the ruins and hiding them, the architects placed a transparent and lightweight polycarbonate roof over them. This roof allows diffused natural light to enter the space gently. Sunlight filters down and highlights the stone ruins without burning heat or glare. Because of this, the underground baths feel open and alive despite being protected.

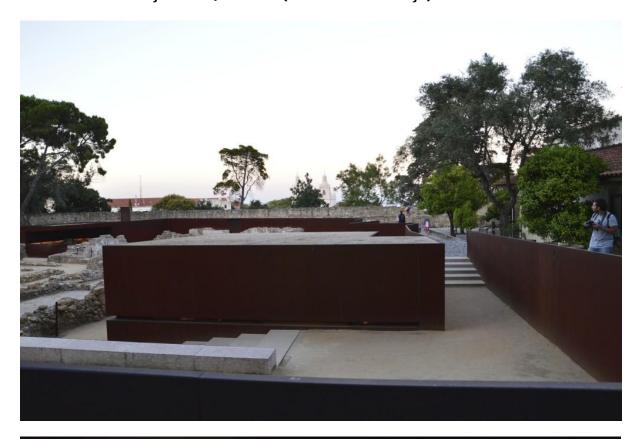




Inside the museum, visitors first enter a single large space that allows them to view the ruins from many angles. The circulation paths align with the ancient sequence of rooms—changing room, cold pool, hot pool—so visitors follow approximately the same route as the Romans once did. Stepped platforms handle changes in terrain height and create different levels for standing and seeing. These steps also help visitors understand the depth and mood of the site as they move through.

Overall, this design does more than just protect the ruins; it brings them to life in a respectful modern environment. The structure connects visitors physically and visually to history. The transparent canopy makes a space full of light and history, while its open layout and thoughtful platform design maintain the original atmosphere of the Roman baths. It is a strong example of how modern architecture can both protect and enhance archaeological heritage through transparency and site sensitivity.

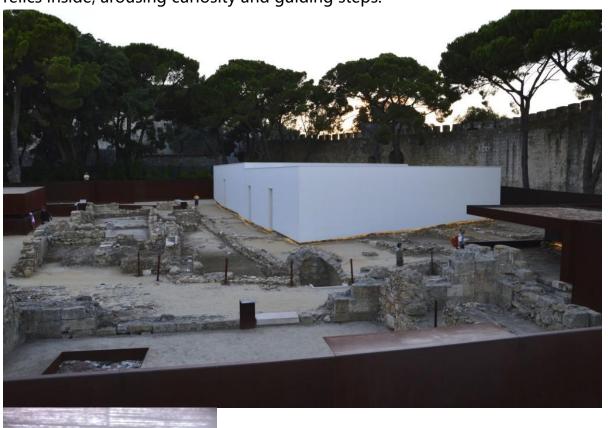
4. Museu da Praça Nova, Lisbon (Carrilho da Graça)





In the museum design of the Praça Nova site, Carrilho da Graça used minimalist shapes and modern materials as "cutting tools" to accurately separate spaces

and guide the visiting path. The outer edge "metal box" constructed of Corten steel plates cuts into the site like a scalpel, and horizontal gaps are opened on it, which not only becomes a light and solid enclosure, but also provides visitors with a window to peek into the internal ruins - these horizontal gaps control the field of vision to a certain extent, while hinting at the existence of precious relics inside, arousing curiosity and guiding steps.

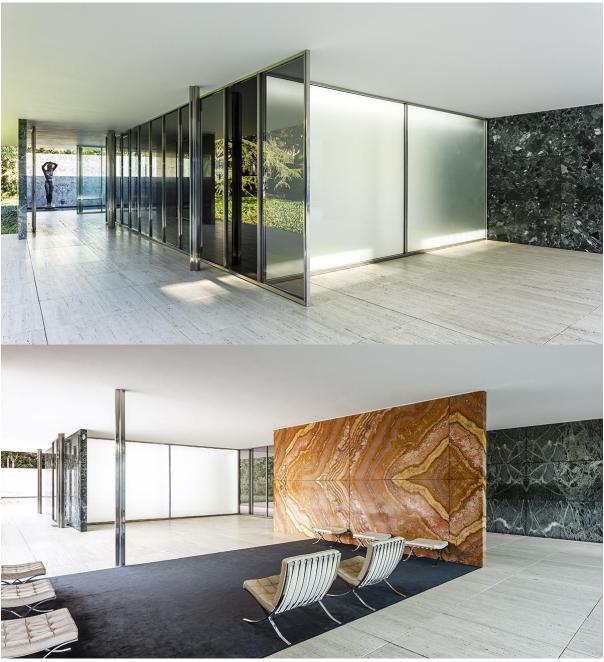




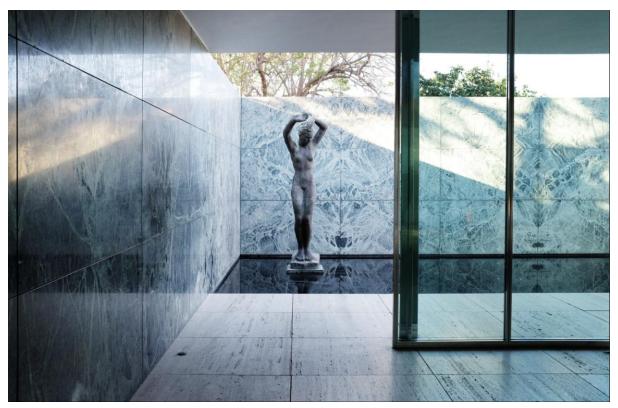
In terms of materials and volume, the design deliberately highlights the difference between modern "enhancement" and original ruins through clean

white wall materials and undecorated shape processing. The white structure seems to be suspended above the ancient foundation, grounded only by six fulcrums, and its top is covered with translucent polycarbonate and wood. On the one hand, it reconstructs the scale and light atmosphere of the ancient room, and on the other hand, it creates a "floating" state in shape and material, strengthening the boundary between the new and the old. At the same time, the hall-like scale of the space restores the original interior experience and retains a high degree of readability and respect, allowing visitors to understand that this is a modern intervention while also perceiving the original appearance and atmosphere of the ancient space.

5. Barcelona Pavilion (Ludwig Mies van der Rohe)



Ludwig Mies van der Rohe' s Barcelona Pavilion is famous for its idea of "a series of spatial effects." He used independent wall planes and reflective pools to form related but open spaces. The walls of different stone materials stand alone, creating gaps and framed passages. Visitors walk through these transitions from one zone to another, which feels continuous without enclosing them.

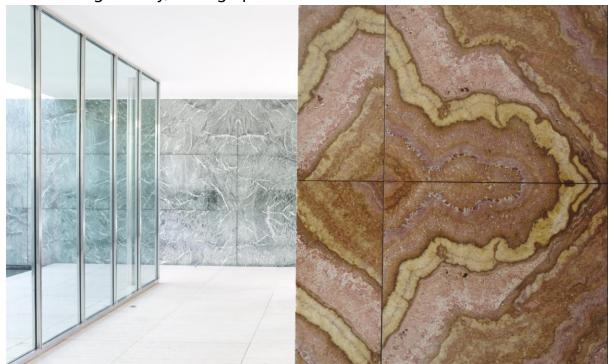


Two water pools are central to the design. The smaller one holds Georg Kolbe's sculpture "Dawn." The water surface acts like a mirror, reflecting the statue and the sky above. It also ensures people keep a respectful distance from the artwork. This pool gives the sculpture a quiet and special setting.



The larger pool is wide and open. It reflects the pavilion's flat roof and

surrounding landscape, doubling the architecture in mirrored form. This pool makes the pavilion seem more sculptural and spacious. Light dances on the water during the day, adding openness and calm.



Materials also play a key role in Mies's design. He used gypsum ceiling panels, green marble walls, glass partitions, and white travertine floors. They are set in an asymmetric pattern. However, their reflections in pools and carefully balanced lighting create a visual symmetry. Mies called this an effect of "contradictory symmetry." It means that while things look informal and different, together they feel ordered and balanced. The ceiling almost seems to open up into the sky, reinforcing the sense of openness.

6. James Simon Gallery, Berlin Museum Island (David Chipperfield Architects)



The James Simon Gallery on Berlin's Museum Island creates a clean and sculptural identity that respects its historic context while remaining distinct. The building uses prefabricated panels with sandstone aggregate and thin white concrete columns. These elements echo the classical architecture of nearby buildings but without copying their ornamental style. The result is a fresh, elegant structure that stands on its own.



This gallery serves as the main entrance to several museums on the island, including the Pergamon and Neues Museums. Steps, terraces, and colonnades connect the building with the surrounding canal, bridges, and gardens. It forms a new public space at the edge of the water, acting as a bridge between historic sites and landscape.



At the entrance, three wide steps ascend into a colonnade that is nine meters

tall, with slender columns only thirty centimeters thick. This opening creates a sense of ceremony and openness, much like an ancient stoa. The design echoes King Frederick William IV's idea of a "cultural acropolis"—a gateway to the city's cultural world. The colonnade offers both a ceremonial arrival and an open urban threshold.



The gallery invites public access and importantly, integrates with the city's life. People can chat on the terrace, enjoy views of the water, etc. The building thus becomes more than a museum; it becomes a cultural portal. It marks an axis—city, river, museum—that is both symbolic and functional.

Conclusion

Across these six case studies—Liangzhu Museum, Tomba Brion, Sant Boi Baths Museum, Praça Nova Museum, Barcelona Pavilion, and James Simon Gallery—common themes emerge:

Each design mixes dynamic natural forces with calm architecture. Elements like light, water, and outdoor space animate otherwise static buildings.

Designs move between modern and historical elements, balancing old and new clearly yet respectfully.

Water is often used as boundary, mirror, and source of movement in courtyard pools, ponds, and canals.

Natural light is carefully filtered through roof structures or open courtyards to create thoughtful atmosphere.

Simplicity in materials and form creates elegance and strong spatial logic, whether through steel, concrete, stone, glass, or polycarbonate.

These buildings show that architecture can combine protection of heritage, clarity of modern design, and sensitivity to natural elements. They do not merely display history—they invite people to experience it, move through it, and reflect on it. In every case, movement, light, water, and material are choreographed to produce powerful and meaningful spaces.

This approach highlights a new generation of museum and heritage design—one that is immersive, responsive, and thoughtful. Designs respect place and memory, while opening new ways to connect with history in modern form.





4 Project: Mirror of the Villa

4.1Reawakening Spatial Rituals: A Mirror to the Villa's Threshold Enhancement: Reawakening the Memory of Flow and Entry

Within the vast and intricate spatial system of Villa Adriana, architecture is never merely the accumulation of structures—it is a medium of memory, a metaphor of order, and a choreography of perception. The enhancement project we propose is grounded in this understanding: it is neither a patchwork reconstruction of a fractured history, nor a speculative revival of imperial grandeur. Rather, it is a minimal intervention that seeks to awaken the site's spatial spirit—an act of contemporary expression through subtle constructions and path-making that respond to the logic of spatial perception.

All of our interventions begin with the principles of reversibility and preservation. For instance, the Pavilion proposed within a sensitive archaeological area is entirely suspended above ground: raised approximately half a meter using metal supports without disturbing the soil beneath, it houses both water features and architectural elements, forming a "removable monumentality." The entire process strictly follows the technical red line of "no excavation, no subsoil disruption," ensuring that structural retreat becomes a means of cultural preservation.

At the same time, one of the project's core concepts is to address the perceptual absence of Villa Adriana's once-dynamic water system. As previously discussed, all water bodies currently present in the site are artificially filled and regularly replaced with static, clean water—visually restorative but spatially mute. They have lost the language of gravity, flow, and rhythm that once animated the imperial hydraulics. In our design, we reintroduce a controlled sense of movement across sloped landscapes and nodal sequences, enabling visitors to experience the memory of "water once flowing through this place" via subtle shifts in humidity, reflective interference, and acoustic cues. It is worth noting that our system still relies on artificial water input—natural gravity-fed hydrology remains unfeasible due to

technical, legal, and conservation constraints. However, this does not compromise our intention to reactivate the spatial presence of flow on a perceptual level.

The spatial siting of the enhancement project is also anchored in archaeological studies and path-based logic. Its core area is located in the lowland entrance zone in front of the Pecile terrace—precisely the ceremonial approach analyzed in chapter 2.4. This route once carried a sequence of ritual nodes—Antinoeion, Cento Camerelle, and Grande Vestibolo—constituting the villa's processional axis. Our two architectural interventions are situated at the entrance and inflection points of this path: through landscape reconstruction and architectural gestures, we attempt to reawaken a spatial experience that echoes the Propylaia-like cadence of arrival. These elements are inserted into the terrain with utmost subtlety, preserving the site's original character, so that every act of walking becomes a layered encounter between time and space.

Fig.4.1.2 Analysis of the Design Strategy. Created by the author, 2025.







From Axial Memory to the Arc of Entry Design Strategy

When we decided to situate our contemporary intervention at the western entrance zone of Villa Adriana, we were fully aware that any new construction must strictly adhere to the villa' s pre-existing spatial order and perceptual logic. Accordingly, the project did not begin with a preconceived volume or architectural form, but rather with a network of what Pier Federico Caliari defines as assi percettivi— "perceptible axes" —a theory he elaborates in his 2012 monograph Tractatus Logico Sintattico. La Forma Trasparente di Villa Adriana¹. In it, he maps out a system of decentralized, transparent axial relationships that structure the site' s experiential coherence.

From this system, we selected two critical axes as our foundational framework: R27 and R3. R27 connects the central altar of the Ninfeo Fede with the axial backdrop wall of the Pecile terrace, and belongs to a set of northeast-oriented repetitive axes—parallel to R47, R54, and others—that form a peripheral sequence of spatial perception. R3, by contrast, is one of the villa's primary ceremonial axes, running through several central commemorative structures. The intersection of R3 and R27 defines the primary spatial node of our proposal—the project's geometric and perceptual anchor point.

From this anchor, we constructed a circular arc using the center of the Pecile terrace as the origin and the primary node as the radius. Remarkably, the resulting arc closely aligns with the northern curved wall of the Pecile, suggesting that such geometry may already be embedded in the site's spatial memory. We extended this arc into the lowland landscape as a perceptual trace—along which we positioned water features and landscaping elements that would gently guide visitors toward the spatial core. This move was accompanied by the extrapolation of an existing ancient stone-paved path, previously unearthed just in front of the Antinoeion. The uncovered segment aligns closely with our proposed axis and is believed to have once formed part of the villa's ritual entrance sequence. We extended this path

westward to meet the present-day road network, introducing subtle shifts and curves to modulate terrain and amplify the experience of spatial emergence—creating an overlay between ancient procession and contemporary movement.

The geometric arc derived from the primary axes eventually terminates in front of a rectilinear ruin located at the northwest edge of the Pecile terrace. It is at this point that we position the Pavilion, aligning it precisely with the perceived axes and orienting it toward the visitor's path of approach. The structure seems to emerge directly from the existing ruin, forming an extended "landscape wall" that defines the edge of the platform and guides the spatial rhythm. The Pavilion is conceived primarily as a linear wall-based volume, responding to the architectural cadence of the northern ruin and visually echoing the axial backdrop wall of the Pecile terrace. It is entirely independent from the circular geometry applied elsewhere in the design.



In contrast, the circular geometry that originates from the primary spatial node—defined by the intersection of axes R3 and R27—serves as the generative basis for the Museum positioned on the southern slope. This node sits within the perceptual heart of the villa's spatial system, resonating with the geometric and commemorative logic of various historic structures. Using it as the center point, and referencing the dimensional language of circular forms found throughout the site—such as the central altar of the Ninfeo Fede—we established the initial geometry for the Museum's layout. The resulting form both respects historical scale and strengthens the museum's alignment with the ceremonial R3 axis.

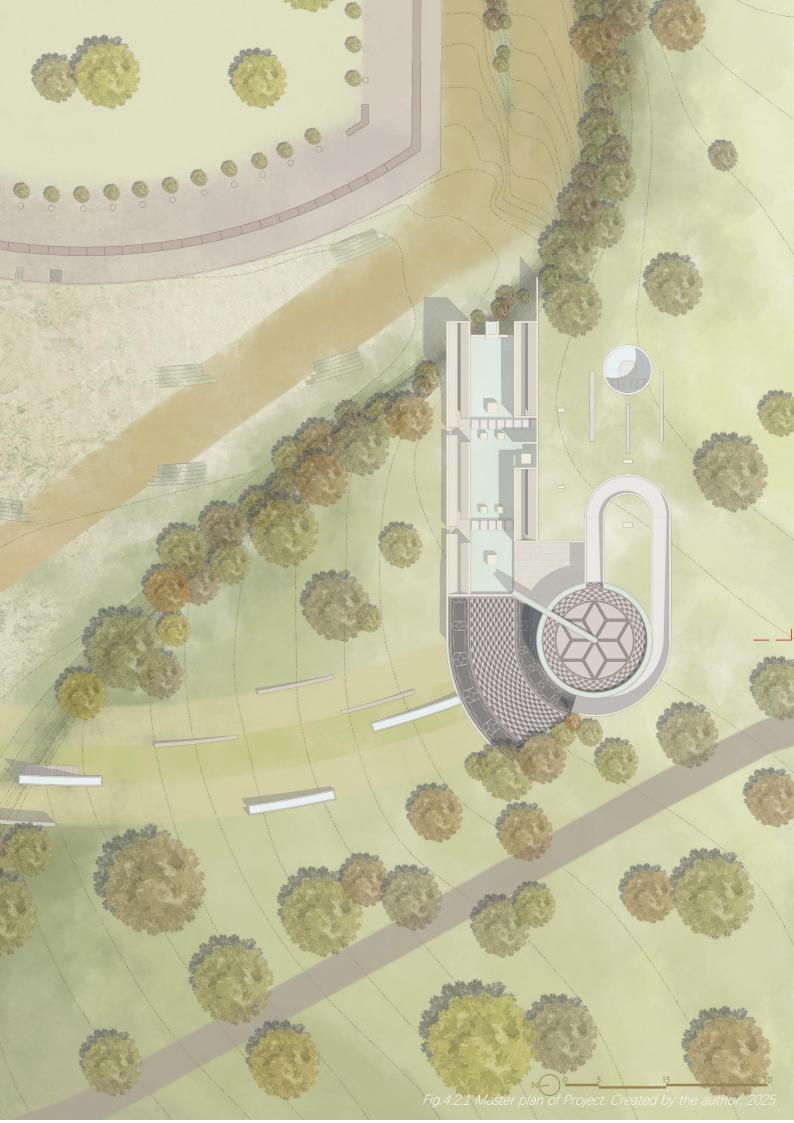
The Museum is embedded into the slope at the southern edge of the terrace, designed as a semi-subterranean volume. It faces two historically distinct circulation paths: one descending toward the villa's underground service system, and the other ascending into the core noble quarters. Through this positioning, the building expresses a contemporary reflection of the villa's



hierarchical spatial organization. The partially buried form minimizes its visual impact while responding symbolically and structurally to the villa's layered socio-spatial logic. In this way, the Museum not only integrates harmoniously into its immediate landscape, but also serves as a potential platform for future interpretation and display of the villa's underground archaeological systems—a contemporary surface layered upon an ancient infrastructure.

1.Pier Federico Caliari, Tractatus Logico Sintattico. La Forma Trasparente di Villa Adriana, Rome, 2012.











4.2 Near the Echo: A Thermal Pavilion by the Villa

This design is situated at the western end of the entry route to Villa Adriana, near the northwestern edge of the Pecile terrace. It was the first architectural element established in the enhancement project and lies at the visual convergence of the ancient ceremonial axis and the contemporary visitor path. We have named it the Pavilion. Constructed with minimal intervention in front of a preserved rectilinear ruin, it responds spatially to the historic entry path while evoking the rhythmic memory of the site through open form and flowing water. The Pavilion does not seek to replicate any original structure of the Villa; rather, through materiality, form, light, and water, it reconstructs a condition "near the echo" —a spatial and perceptual continuation.

The Pavilion is raised above the natural ground level without any excavation, avoiding disturbance to the archaeological stratum. Its spatial logic follows the axis of the adjacent ruin, extending into a linear long-wall volume. Rather than merely referencing the rhythm of the Pecile's retaining wall, the Pavilion continues the direction and dimensional logic of the ruin behind it, providing a unified commemorative backdrop. The Museum on the southern side mirrors this configuration; together, the two form a spatial pair flanking the original entry path, resonating with the Villa's compositional logic of symmetrical containment.

Functionally, the Pavilion is conceived as a small thermal bath, while also aiming to reconstruct the historical experience of sculpture viewing in Roman times. Unlike today's museums—where sculptures such as the Farnese Hercules are typically viewed frontally on plinths—these artworks were likely embedded within Roman bath complexes, placed in niches, along colonnades, or above eye level, to be seen from within pools or while moving.¹ The Pavilion seeks to revive this "forgotten mode of viewing," inviting users to re-enter an embodied viewing scene where water, steam, sculpture, and light interact in a unified spatial experience.



Fig.4.2.4 Farnese Hercules, Glykon of Athens, 212 CE,Naples: Museo Archeologico Nazionale di

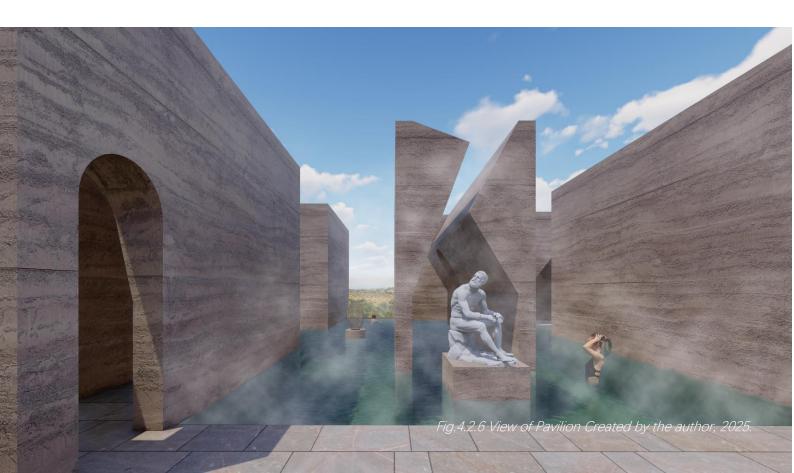
Fig. 4.2.5 Original Placement Site of the Farnese Hercules at the Baths of Caracalla, Rome*. Photograph, 2023.

The site's physical characteristics further reinforce this immersive condition. The Pavilion sits within a platform surrounded by dense vegetation and tall grasses, creating a semi-concealed, semi-open setting. To the southeast, the view opens outward, embedding the structure within the threshold between ruin and forest—appearing to emerge from time itself. A skylight cut into the Pavilion's roof introduces shifting natural light, which glides across rammedearth walls and reflects off the water's surface. Vapor, sculpture, and light intertwine, forming a highly sensorial environment. The Pavilion is not a space for display, but rather a contemporary interpretation of the act of perception itself.

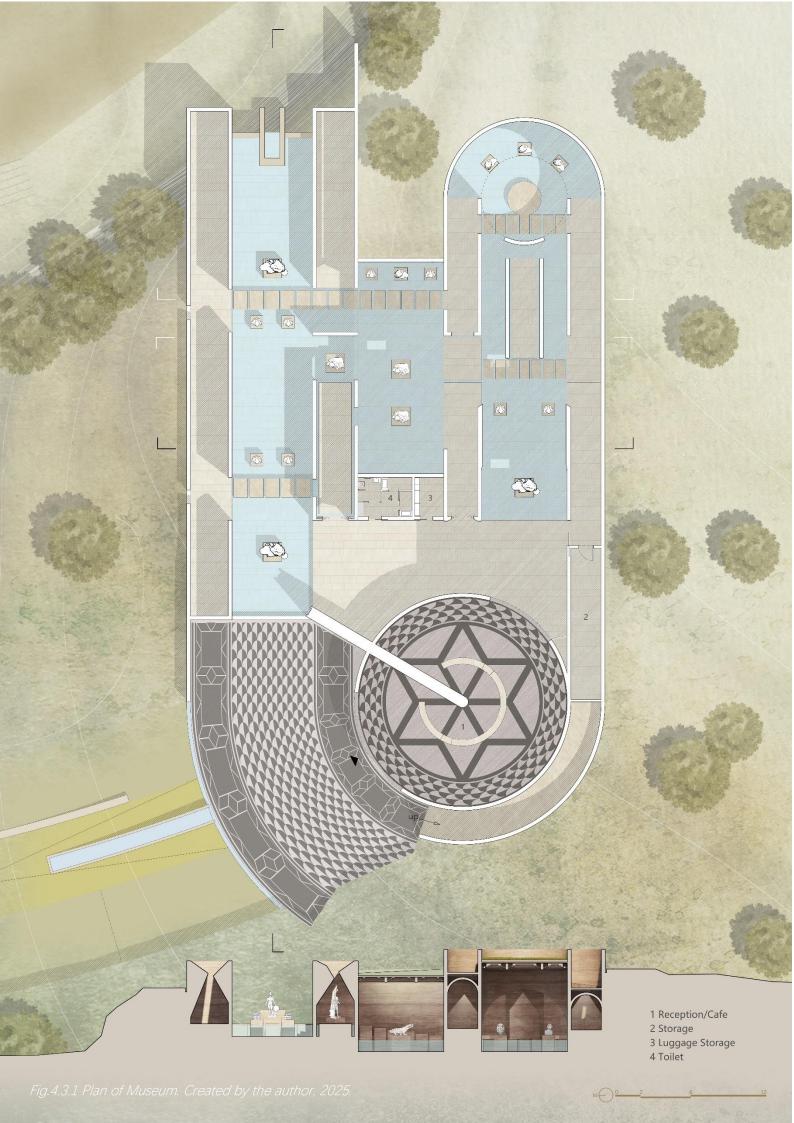
As visitors slowly enter the Villa from the western path, their gaze meets the towering backdrop and retaining walls of the Pecile. Beside them, the Pavilion rises as a simple but monumental presence—an architectural body lifted by time. Water spills from its edge in a gentle cascade, falling into a long linear pool along the axis. This gesture aims to evoke memory: water once flowed through courts, arches, and commemorative spaces at the Villa—not as decoration, but as a reflection of the rational order and natural rhythm

Hadrian admired. Such rhythms, often seen as the cosmic principle in Stoic philosophy, embodied the harmony between human construction and the natural world. Today, the water is still, and the structure removable—but among light, vapor, and stone, the sense of flow seems never to have ceased.

1.See: Fikret Yegül, Baths and Bathing in Classical Antiquity, MIT Press, 1992. The book, drawing from reconstructions of Pompeii, Herculaneum, and the Baths of Caracalla, demonstrates that sculptures were often embedded in walls or niches, meant to be viewed from lowered or dynamic perspectives—establishing a sensory system between body, image, and architectural rhythm.











4.3 The Mirrored Threshold: Descending into History, Rising toward Empire

The Museum is embedded along the western edge of the Pecile terrace as a "mirrored threshold" — not a monumental gate, but a subtle spatial signal. Through a sunken plaza and carefully shaped terrain, it softly communicates to visitors: "You are now entering the domain of the Villa." The entrance is set within a landscape hollow, where a curved vegetative strip echoes the arc of the Pecile's retaining wall. This planted form extends the spatial rhythm of the Pavilion while gently leading visitors toward the Museum's interior.

The geometry of the structure originates from the circular node defined by the intersection of axes R3 and R27, yet the built form is composed of four elongated, wall-like volumes. The two segments on the left are semisubterranean — one aligned with the ancient descending service path, the other with the ascending ceremonial route toward the villa's core. The two segments on the right are fully underground, their roofs covered with earth, while light is brought inside through strategically placed skylights. The long walls not only respond to the formal language established by the Pavilion but also reflect the linear proportions of key architectural elements along the



villa's main ceremonial axis.

The underground spatial experience here resists the conventional "white-box" museum typology. Instead, it evokes a ruinous grotto — a space shaped by diffuse light from above, damp air, and reflective surfaces. The experience reanimates the sensation of something excavated, something revealed. This effect echoes the ancient Roman hydrological infrastructures of the Tivoli region — cryptoportici, cisterns, and subterranean water channels — to which this Museum offers a contemporary spatial response.

Water within the Museum plays a restrained but significant role. Rather than emphasizing movement, it serves as a spatial delimiter and perceptual mediator. Drawing inspiration from the Canopus, the author positions water as a device to choreograph distance, rhythm, and orientation. The water surface separates viewers from the artifacts, creating a heightened sense of reverence and intentionality in viewing. Its presence is not purely aesthetic, but rather an invocation of the Roman understanding of water as structure — a medium of reflection, depth, and spatial discipline.

Above the building, the circular rooftop platform—located precisely at the R3-



Fig 4.3.4 Section of Museum, Created by the author, 2025

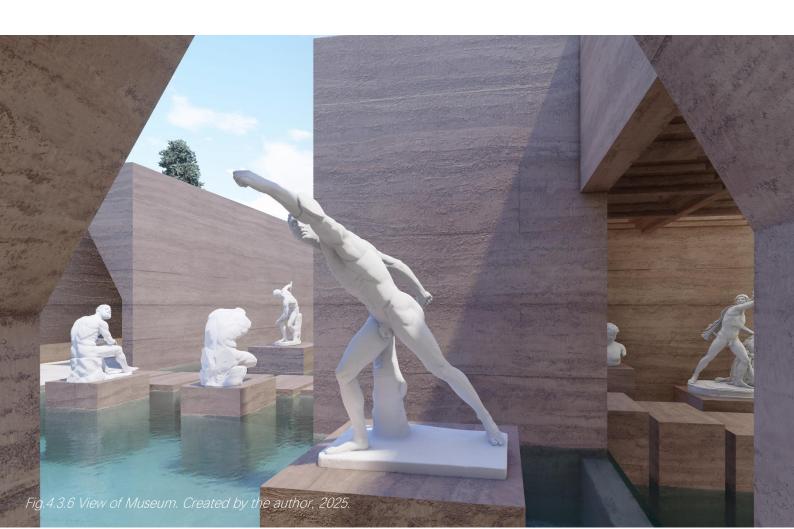


R27 axial node—offers a panoramic eastward view toward the Imperial Palace sector, including the Nymphaeum. In the current visitor experience, there is no comparable vantage point from which the villa's core structures and axial layout can be perceived in their entirety. While the platform is not elevated above the terrain, its precise positioning within the villa's spatial framework enables a unique form of embedded observation: one sees not from above, but from within, immersed in the site's geometric and narrative order. Thus, the Museum becomes more than a container for artifacts—it acts as a prelude to the Villa itself, a mirror through which the imperial spatial logic is reencountered and reinterpreted by the present.

Between the Pavilion and the Museum—two architectural interventions that act as "dual propylaea" —unfolds a subtle landscape path. It is not enclosed by walls, nor defined by structural massing. Instead, it emerges from the geometric logic of the Pecile' s retaining wall, following a gentle arc that guides the visitor toward the villa' s archaeological core. The path stops short of the Vestibolo, aligning only with the currently excavated and partially restored segment of ancient stone paving located in front of the Antinoeion. The design does not seek to reconstruct what is missing, but to offer a contemporary continuity of perception—an echo of spatial order suspended between visible fragments and absent narratives.

Water is introduced here not as a central element, but as a dispersed presence: small pools or linear water traces are discreetly embedded along the arc-shaped planting belt. These scattered water features are nestled into shallow recesses or partially veiled by vegetation. Utilizing the natural elevation difference of the terrace, a faint gravitational flow is achieved between points, creating an almost imperceptible rhythm of sound and moisture. This strategy is not merely aesthetic—it references the ancient hydraulic systems of the villa, reactivating the memory of gravity-fed water movement through sensory suggestion.

Materially, the path avoids overt formality. Its surfaces may be constructed of pale volcanic lime or compressed fine-grain aggregate, producing a textured tactility that blurs the boundary between constructed and natural. The edge is defined not by curbs or rails, but by gradients and planting. As the path nears its end, the artificial elements gradually recede: the water thins out, and the design dissolves into natural grass and fragmented ruins—allowing the voice of the site itself to emerge without interruption.



In this transitional space, we also envision new layers of contemporary cultural potential. The landscape path, situated between two spatial anchors, offers enough continuity and rhythm to serve as a setting for small-scale outdoor art exhibitions. Sculptures, installations, or ephemeral works could inhabit this environment without damaging the ground or compromising the archaeological context. Water reflections, seasonal planting, and the interplay of light and terrain could all contribute to an immersive platform for contemporary expression framed by ancient presence.

More importantly, the path—together with the curved green belt and the rooftop of the Museum—forms a potential urban-scale micro-park. Unlike conventional heritage sites, which often close their gates after hours, this zone could remain accessible even when visitor centers are shut. Tivoli residents might stroll through its planted arc, rest in its shaded niches, or simply experience the atmosphere of the ruins in silence. This soft, flexible space addresses a critical issue we raised in chapter 2.4: the Buffer Zone's current function as a legal boundary often separates rather than connects the villa and the city. By designing a zone where light construction, landscape, and heritage coexist, we attempt to reintegrate the ruins into everyday life, making the threshold of the villa once again part of the town's living fabric.









4.4 The Mirror Extended: Encountering the Ruins Through the Path

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Material Memory and Tactile Resonance

To further reinforce the continuity between the enhancement project and the surrounding archaeological environment, the architectural elements adopt a palette of simple yet deeply contextual materials. The primary volumes are finished with rammed-earth–like surfaces and mineral-based coatings, allowing the new structures to visually and texturally blend into the ruin-scape behind them. These earthen textures absorb light rather than reflect it, grounding the pavilions as extensions of the soil itself—not monuments above history, but gestures within it.

The principal flooring surfaces, especially in bathing and exhibition areas, are composed of large-format, warm-toned yellow and off-white marble. This choice not only resonates with Roman material traditions, but also enhances the reflective and luminous relationship with water, offering a placid, contemplative atmosphere—as if light and moisture are held still upon a polished stone scroll.

Within the Museum component, the entrance hall and adjacent outdoor plaza are paved in black-and-white mosaic patterns, drawing directly on ancient Roman techniques of spatial orientation through visual rhythm. The compositions emphasize axiality and center, echoing the ceremonial logic of the villa. Many of the motifs are inspired by historical precedents such as the flowing, modular tesserae patterns of the Baths of Caracalla—fluid geometries that evoke water's movement while defining direction and gathering.

Throughout the project, the overall material language remains deliberately minimal and tectonically legible. At the threshold, the main entrance doors are constructed of oxidized bronze, chosen for their patinated, muted quality—quiet enough not to compete with the landscape, yet durable and dignified in their architectural presence.





Conclusion: Design as Mirror – A Delayed Footnote to Villa Adriana

The enhancement project does not impose an external framework upon Villa Adriana, nor does it seek to reconstruct what once was. Rather, it reflects—it mirrors the site's existing spatial order, fragmented rhythms, and silent alignments through architectural gestures that function as deliberate acts of spatial reflection. The Pavilion, the Museum, the landscape path, and the softly intervened terrain may appear as discrete operations, yet together they compose a unified architectural sentence in four movements:

The Pavilion mirrors the tactile and the luminous, recalling ancient experiences of bathing and contemplation in a suspended, elevated presence;

The Museum mirrors structure and memory, embedding itself as a semiruinous, semi-subterranean threshold that reframes how the villa is viewed and interpreted;

The Path reflects time into motion, extending the logic of imperial axes through a sequence of landscape and water, guiding the visitor between past and present;

And the Site as a whole becomes a mirror at the city's edge, not to display the villa's grandeur, but to restore its connection with the rhythms of contemporary urban life.

This is not a reconstruction, not a revival, not an embellishment—but a mirror architecture, carefully placed to capture, extend, and make visible the invisible logic of the villa. We did not aim to represent Hadrian, but to resurface the spatial cadence he once orchestrated—gently, temporarily, and with full reversibility.

These architectural traces do not complete Villa Adriana; they do not speak for the emperor. But they offer us, today, a mirror through which to see the villa once again—not as a ruin, but as a spatial idea still unfolding.





Fig.4.4.5 View of Museum. Created by the author, 2025.

Final Reflection: A Mirror Passed Through Time

No amount of study, design, or reconstruction can truly restore the lived experience of Hadrian's Villa—not for the emperor himself, nor for the architects who planned it, the artisans who shaped it, or the laborers and slaves who moved through its corridors. We, as modern architects and scholars, stand not inside their lives but in the wake of what they left behind: fragments of geometry, ruins of ritual, and silent structures once animated by bodies, beliefs, and intentions.

From the Renaissance to the present day, generations of researchers have sought to read this site—to peer beneath the tragic mask of ruin that Villa Adriana wears, like a Greek drama, and to reconstruct, with care and restraint, the poetic, political, and spatial logic that once governed its form. What we discover is not a singular truth, but a spectrum of interpretations: the villa as reflection, as projection, as memory, as empire.

We have designed not to restore a palace, but to tell a story—a story that belongs to no one person, but to many minds across time. As Yuval Noah Harari writes:

"Humans think in stories, and we try to make sense of the world by telling stories. The power of shared imagination is the basis of large-scale cooperation." 1

Villa Adriana is one such story—an architectural epic that has been read and reread for centuries. Like a mirror placed in the ground, it invites each new visitor, each new thinker, to see themselves within its fragments.

And if our efforts today can help others read this mirror more clearly—not only with their eyes, but with their imagination—then perhaps we have not only protected a ruin, but sustained a legacy.

We close with the words of Herodotus, who long ago explained why histories must be written:

"This is the publication of the researches of Herodotus of Halicarnassus, so that human achievements may not become forgotten in time, and great and marvelous deeds—some displayed by Greeks, some by barbarians—may not be without their glory." ²

^{1.} Yuval Noah Harari, Sapiens: A Brief History of Humankind (London: Harvill Secker, 2011), Chapter 2.

^{2.}Herodotus, Histories, trans. Aubrey de Sélincourt, revised by John Marincola (Penguin Classics, 2003), Book I.





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