Wayfinding and Spatial Orientation in Museums: Case Study the Acropolis Museum

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ABSTRACT

This study explores the critical role of wayfinding and spatial orientation in enhancing visitor experience within museum environments, focusing on the Acropolis Museum in Athens, Greece. Wayfinding, understood as the cognitive and physical process of navigating through space, is a vital component of museum design, directly influencing visitor engagement, interpretation of exhibits, and overall satisfaction. The objective of this research is to examine how the Acropolis Museum facilitates intuitive navigation through its architectural design, signage systems, and spatial layout. The field of research in which wayfinding is situated refers to the way people move in reaction to environmental stimulation. It therefore fully concerns not just signage but also space designing, its geometric configuration, technical solutions and their material characterization. Designing a museum is a challenge that requires the skill collaboration and creativity of the architect. With the right approach, the museum can become a space that not only serves to preserve and exhibit cultural heritage, but also offers a unique experience to its visitors. The methodology of this study is based on on-site observations of the overall tour route of the Acropolis Museum, as designed by the architect Bernard Tschumi, spatial analysis, as well as interviews with visitors. It also explores the way in which architectural features of the museum, such as natural lighting, optical corridors and the alignment of the exhibition spaces with the view of the monuments of the Acropolis rock, contribute to spatial legibility. In addition, the existing signage of the museum is evaluated, as a supporting means of accessibility of the exhibits by visitors. Finally, issues related to areas that need improvement, such as the accessibility of the Museum, including the space inclusive design, for instance, are particularly highlighted.

Keywords -Wayfinding, Spatial orientation, Acropolis Museum, Spatial signage, User Experience.

1. Introduction

The Acropolis Museum stands as a prominent example of contemporary archaeological museology, designed to preserve and present the rich material heritage of the Acropolis of Athens. Focused on the Acropolis of Athens archaeological site findings, the museum was built not only to house every object that has been found on the sacred rock of the Acropolis and at its foot, covering a wide period from Mycenaean to Roman and Early Christian Athens, but also to connect visitors with the cultural and historical significance of the ancient acropolis (Falk & Dierking, 2013). Located on the archaeological ruins of the Makrygianni site and in direct visual and spatial alignment with the Parthenon, the museum is a symbol in the Athenian landscape.

Architect Bernard Tschumi, in collaboration with architect Michael Photiadis, designs the Acropolis Museum using three fundamental principles: light, movement, and programmatic clarity (Tschumi, 2009). These elements, requested in the Acropolis Museum design brief, ultimately form a dynamic spatial experience, where the architectural design supports the visitor flow of movement and navigation The route that visitors follow, as they go upward through the museum levels, resembles the ascent to the Sacred Rock of the Acropolis.

In this context, wayfinding, the process by which people navigate and orient themselves in an inner or outer environment, is emerging as a crucial component of the visitor experience. Wayfinding is not a simple function, but a complex spatial and cognitive process, which influences the way visitors understand and emotionally interact with cultural environments (Arthur & Passini, 1992). Placing navigational information in strategic places helps visitors make intuitive decisions about direction and the destination. While built environments are often internalized on the basis of visual and cognitive elements, the perception of space, of distance and time can differ significantly from physical reality (Lynch, 1960; Weisman, 1981). Therefore, wayfinding systems must respond to the fundamental spatial questions that shape human behavior:

- Where am I?
- Am I close to where I need to go?
- How do I get there?

The Acropolis Museum presents a unique case for examining how architectural design, circulation patterns, visual cues, and interpretive signage collectively support spatial legibility. By facilitating seamless movement and cognitive mapping, wayfinding in this museum serves not only a practical function but also reinforces the interpretive and educational mission of the institution (Peponis et al., 2004; Bitgood, 2011). This article investigates the wayfinding strategies employed in the Acropolis Museum, evaluating how spatial and visual systems influence visitor perception, orientation, and meaning-making within the museum environment. Through spatial analysis, site observations, and visitor feedback, the study aims to contribute to broader discourses on museum design, visitor-centered interpretation, and the role of space in cultural communication “Fig. 1.”

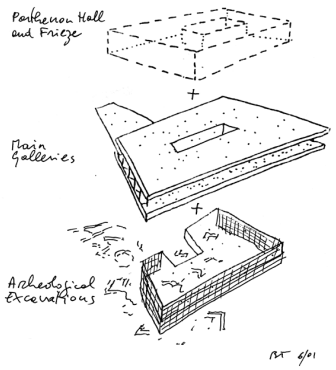

Fig. 1. Volumes spatial analysis of the Acropolis Museum by the Architect Bernard Tschumi,

2. Theoretical Framework: Understanding Wayfinding in Museum Spaces

Wayfinding refers to the cognitive and behavioral processes by which individuals orient themselves and navigate within physical environments. It encompasses a range of strategies and tools—including spatial layout, signage systems, landmarks, and environmental cues—that help users understand where they are, where they want to go, and how to get there efficiently. In the context of museums, where visitors are often unfamiliar with the layout and exhibit organization, wayfinding plays a crucial role in shaping both the functional and interpretive aspects of the visitor experience "Fig. 2."

Fig. 2. Wayfinding Design in Sydney's Powerhouse Museum

The term wayfinding was popularized by Kevin Lynch in his seminal work The Image of the City (1960), where he introduced the notion of environmental legibility—that is, the ease with which people can read and understand the spatial layout of an environment According to Lynch (1960), when people move around a space (external or internal), they follow a mental map consisting of the following five elements: paths, edges, areas, nodes and landmarks. Landmarks in particular (for example, iconic buildings in a city) help people navigate in areas unknown to them. Also, in the case of multi-storey and labyrinthine buildings, it is quite difficult for the visitor-user to understand their floor plans in relation to the key points of level change, such as stairs, but also very difficult to lose his orientation, especially when there are no necessary sign boards (Weisman, 1981).

On the contrary, buildings with a simple geometric floor plan and easy access to the floors, while there are also appropriate signs with clear guidance to the required points, the accessibility of the spaces by users becomes easier. Arthur and Passini (1992), wanting to provide a further solution to the wayfinding process of people moving in unfamiliar environments, focused on their orientation, as well as, on the selection and monitoring of their route. This entire process is both cognitive and experiential, relying on perception, memory, and decision-making mechanisms that are shaped and influenced by the design and configuration of the space. Furthermore, auxiliary cognitive and experiential maps contribute to the navigation of users in buildings with careful architectural design, where the entrance and exit to them are immediately perceived.

Regarding museums, the way the space is organized is directly related to the exhibits and their collections in general. Usually, a linear path is followed with chronological placement of the exhibits, often symmetrical, as was the case in the Museums of the 18th and 19th centuries. Since the 20th century, the placement of the exhibits has been done simultaneously with the architectural design of the Museum. The visitors' path is already predetermined, as is the case in the Guggenheim Museum in New York, a work of the architect Frank Lloyd Wright. The design of this particular Museum is based on a spiral, where the visitor goes up to the top floor by elevators and, descending from the inner perimeter corridor of the spiral, takes in the exhibits of the space.

Peponis et al. (2004) emphasize the importance of spatial configuration in supporting wayfinding, particularly in terms of visibility, accessibility, and sequential movement. They argue that the layout of a space—its visual fields, junctions, and depth of navigation—influences how visitors perceive choices and directions. Elements such as open lines of sight, intuitive circulation patterns, and clear hierarchical transitions between spaces help shape what Passini (1996) refers to as a "spatial syntax," a language of movement that users subconsciously read and interpret as they navigate through the environment.

Many environmental and architectural elements, in addition to the space design, support wayfinding. For example, sensory and perceptual elements also play a crucial role in the user orientation, so users can make the right decision moving in a space. Lighting, (natural or artificial) also plays a special role, as it helps in a space navigating, emphasizing key points, such as level change points. Furthermore, the areas created in a border area, are delimited either by color changes, creating visual hierarchies, or by the materials and textures differentiation (marble and wooden floors), thus indicating its division into zones. It is a fact that signage is considered necessary when the architectural design is insufficient or unclear. As stated to Serrell (1996), "good wayfinding is invisible"—visitors should be able to navigate naturally without conscious effort. Modern museum design is now not only guided by signage and maps, but also by integrated architectural elements such as lighting and building materials.

This research examines spatial orientation, approaching it interdisciplinary, as a practical and symbolic tool in museum environments, incorporating theories of environmental psychology and user-centered spatial design. Moreover, the Acropolis Museum is considered an ideal case as it offers architectural complexity in the design of the visitor's entire spatial route.

3. Methodology

This is a wayfinding research which explores a qualitative case study, the Acropolis Museum of Athens "Fig. 3," "Fig. 4." Such cases are particularly helpful in understanding the spatial orientation of complex multi-story buildings, between their architecture in terms of their accessibility and user behavior (Creswell, 2013; Yin, 2009).


Fig. 3 and 4. Left: The Acropolis Museum main view, Right The Monument's reflection on the Acropolis Museum glass windows

3.1. Research Design

The methodology used, involved the organization of two phases of the design research. The first part concerning the buildings architectural construction, was centered on the knowledge of the construction characteristics used in the wayfinding projects. The second part, concerning the project phase was centered on the spatial signage criteria. This research studies methods and tools related to the design and management of museum spaces. It is very important that the placement of exhibits and the path of visitors is determined by the design stage. Then, an evaluation of the spaces resulting from the geometry of the layout, from the visual connections and from the changes of direction is carried out. Also noteworthy is the analysis of visitor accessibility, so that they can use the designed route for their tour of the Museum, according to the chronological placement of the exhibits.

Part of the methodology is the use of natural light, as well as the creation of a sense of open space, since the sculptures exhibited in the museum were originally set up outdoors, and the provision of the visitor with the opportunity to simultaneously view the sculptures - exhibits of the Museum and the Parthenon "Fig. 5." In particular, the effect of natural lighting on the formation of the space defined both by the exhibits and by the determination of the tour route in the museum space is examined. Moreover, the effect of natural lighting on the configuration of the space, both for the exhibits and for determining the path in the museum space, is examined.

Fig. 5. The use of natural light and the creation of an open space sense in the Parthenon Gallery of the Acropolis Museum, while is viewing directly at the Acropolis Monument.

A characteristic point of communication between the levels is the section of the ground floor ramp. The visitor, climbing the ramp and looking up, is able to see the feet of the visitors who are on the 3rd floor, while looking forward, he can see the 2nd floor and behind the Caryatids' exhibition point, the 1st floor. It is worth noting that the Caryatids, in addition to being approached on the 1st floor, can be admired from all sides, being on the 2nd floor of the Museum. In addition, the permeability, proximity and connections of the spaces are explored, especially when there are key points of change of levels and direction of travel, which are also important features for ensuring the exploration of the route.

However, in addition to the architectural design of a large or small building structure, where there is already a coded space organization, usually easily recognizable, the spatial signage design is also required, as a result, the user knows in advance where he is going and has already formed a navigation route in his mind, within the area in which he is moving. Moreover, spatial signage requires the construction of sign boards, which must contain all the information serving the visitor - user during his navigation in the specific area. After a thorough investigation of a building spaces, the points, usually key- points, is decided where these sign boards must be placed, so all user concerns are immediately resolved. Is very important to have color coding on the sign boards, which are immediately understandable by users and do not get confused in their navigation, since they follow the colors. A typical example of color coding is color spatial signage in healthcare facilities, where patients can orient themselves and move around, much more easily.

Also, in cases of emergency, special marking and guidance of users outside the building is required. A wayfinding experiment, held in the early ‘90s by Proulx and Sime in a complex station, demonstrated that prompt instructions to the public, explaining what is happening, what to do and why, is fundamental for successful evacuation (Proulx and Sime, 1991).

3.2. Data Collection Methods

In this specific research for the comprehensive understanding of wayfinding in the Acropolis Museum, an architectural analysis of the building and on-site observation of visitors were carried out.

In the architectural analysis of the Acropolis Museum building, all levels floor plans were studied, as well as the vertical and horizontal floor connectivity. The architect's goal when composing these three horizontal volumes of the Museum was that the marble sculptures of the Acropolis should not be affected by the overall design of the Museum, because they would lose their unrecognizable ness. It is worth noting that the last volume with strict geometry is positioned with a turn, in order to be located in direct visual contact with the Parthenon "Fig. 1."

Also, the levels vertical connection with stairs and escalators at key points, facilitate communication between these three horizontal volumes. Furthermore, the transparency of the horizontal openings, both in the Gallery of Archaic Exhibits and in the Parthenon Gallery, having the proportions of the Monument, is a tool contributing significantly to the orientation and recognition of the space (Hillier & Hanson, 1984; Lynch, 1960).

Regarding the way in which visitors circulated within the Museum, in situ observations were carried out throughout the day. There, it was recorded how visitors moved, that is, whether the path designed at the architectural study stage of the building in relation to the placement of the exhibits was followed. In the in situ observation, it was taken into account whether the signs helped to guide visitors, in order to follow the appropriate path of ascent and subsequent descent, as there were key points that confused the visitor. For example, the view of the Caryatids from various points during the ascent, which often encouraged users to visit them immediately, while in reality it was an exhibit that the user visited during the descent, according to the chronological placement of the exhibits.

It was also investigated whether the existing spatial signage with a minimalist character, both in terms of design and colors, helped the user to navigate comfortably within the museum, since other activities coexist in the museum space, such as cafes, shops and event halls rooms. Also, depending on the age and familiarity of the users with navigating the Museum building, a difference in behavior was observed between visitors, especially at level change points, in relation to the existing spatial signage with directional signs (Bitgood, 2011; Falk & Dierking, 2013). In addition, in order to interpret recurring themes related to the ease of movement and spatial configuration of the Museum, relevant bibliography was used (Uzzell, 1998; Peponis et al., 2004).

4. The Case of the Acropolis Museum: Spatial Wayfinding

The Acropolis Museum is an archaeological museum focused on the findings from the archaeological site of the Acropolis of Athens. The new museum building was founded in 2003 and opened to the public on July 21, 2009, while is located approximately 300 meters southeast of the Parthenon, in the historic district of Makrygianni. Its entrance stands at the beginning of Dionysiou Areopagitou pedestrian street, the central axis of the unified archaeological sites network of the city "Fig. 7." The top floor of the Museum, the Parthenon Gallery, offers panoramic views of the Acropolis and the modern city of Athens "Fig. 8," "Fig. 9."

4.1. Architectural Design and Construction of the Building

The size and to a large extent, the shape of the Acropolis Museum was determined by its exhibits, particularly the monumental architectural sculptures, such as the large pediments of archaic temples and especially the Parthenon sculptures.

The exhibition of the latter sculptures, required a rectangular hall with the proportions of the ancient temple and an area of at least 3,200 sq m. The base of the Museum, on the other hand, had to be successfully adapted to the ancient buildings ruins, which the methodical excavation of the site had brought to light. It took many months of collaboration between architects and archaeologists to find the appropriate positions for the foundation piles, without disturbing the antiquities. The archaeological excavation was treated as a huge exhibit of the Museum, while for its very important movable findings, a museum presentation was planned within the excavation area.

In order to make even the findings in the Museum foundations visible, glass floors were used, both inside and outside, to exist a connection between the natural and built environment. Upon entering the Museum, the first large hall, which is essentially a ramp, hosts findings from the slopes of the Acropolis. Then, on the first floor, on the way up route, the Acropolis archaic sculptures are exhibited, while on the way down route, there are the temple of Athena Nike, the sculptures of the Erechtheion and the architectural members of the Propylaia. However, on the third floor, the highest point of the Museum, exclusively the sculptures of the Parthenon are exhibited.

The total surface of the Museum is 23,000 m2, is consisted of three levels, while 43 columns support the entire structure. The Parthenon Gallery is 84 meters long and 39 meters wide and is surrounded by glass panels, like the rest of the building, with a total glass area of 1,302 square meters.

The materials used in the construction of the Museum are reinforced concrete, steel and glass. The glass surfaces have a visible selective coating for protection against overhead radiation and printed ceramic dots for additional shading. The central point of the Museum is made of prefabricated and cast concrete, which also functions as a vertical communication axis between the floors, while opaque glass covers the glass ceilings. Glass panels are also used as railings with steel handrails. The flooring includes beige marble in the exhibition areas, dark marble in circulation spaces, and multi-layered safety glass with a non-slip surface. Display cases incorporate marble bases, glass vitrines, and recessed steel structures.

4.2. Spatial Orientation and Architectural Wayfinding in the Acropolis Museum

The Acropolis Museum exemplifies how architectural design can go beyond aesthetics to serve as a functional guide for spatial orientation. It provides an intuitive wayfinding experience that enhances both the cognitive mapping and emotional engagement of visitors. Rather than relying predominantly

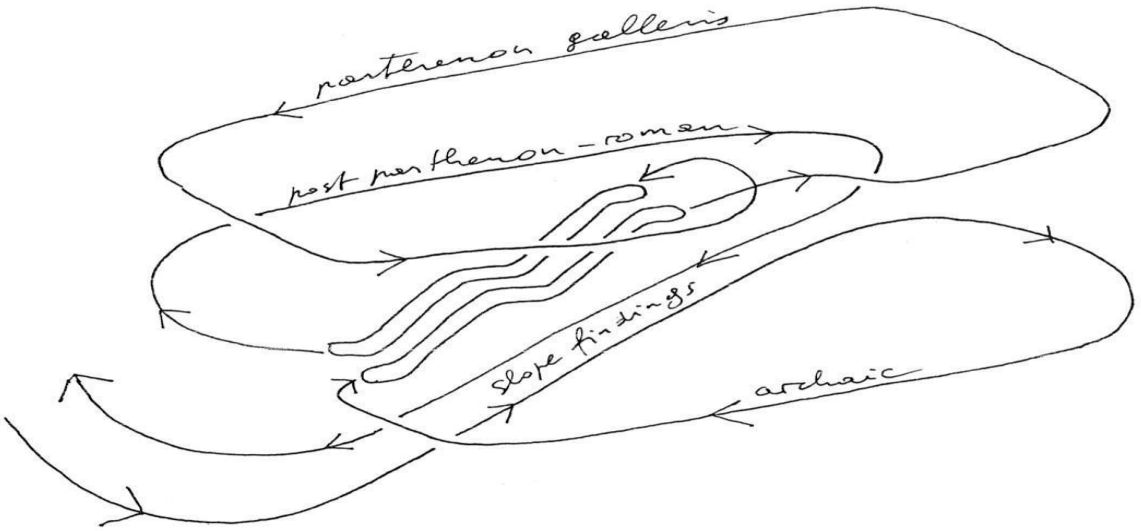

Fig. 6. The design of the visitor's circulation route across the exhibition floors, as conceived by architect Bernard Tschumi

on external signage, digital guides, or prescriptive spatial cues, the museum's spatial logic, axial circulation, and material choices actively shape the visitor's movement through the space. The design invites exploration while subtly directing flow, mirroring the symbolic and physical journey to the Acropolis itself. The visitor's path through the museum's exhibits has been carefully positioned by the architect Bernard Tschumi himself "Fig. 6." This circulation route is essentially a one-way ascent and descent through the museum building, guiding visitors from the entrance to the exit. The aim is to ensure that no exhibit is missed along the way by the visitors, while also presenting the artifacts in a coherent, chronological sequence (Tschumi, 2009; Bitgood, 2011).

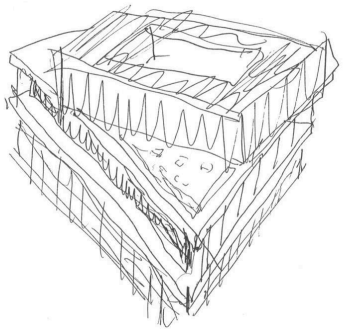

Fig. 7. A sketch of the Acropolis Museum by Bernard Tschumi.

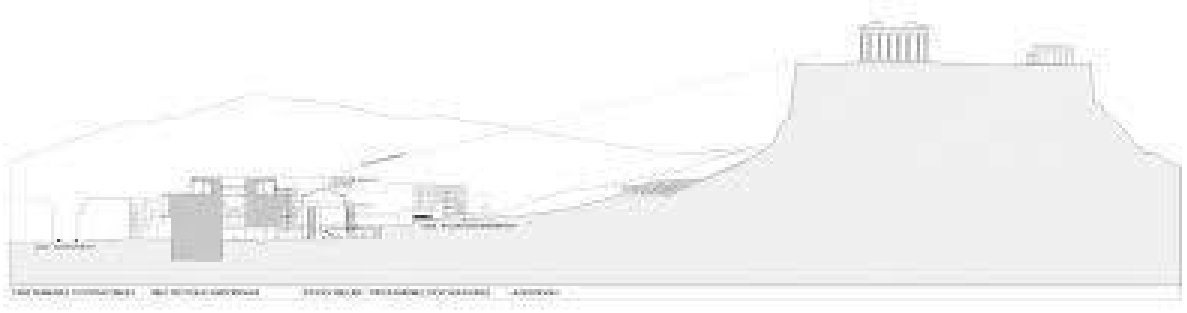

Fig. 8. A sectional view illustrating the visual connection between the Parthenon monument on the Acropolis Rock and the Parthenon Gallery of the Acropolis Museum.

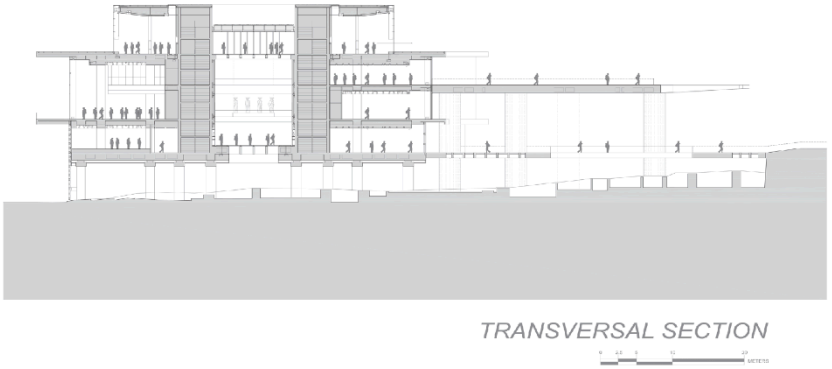

Fig. 9. A transversal section view of the Acropolis Museum by the Architect Bernard Tschumi.

The museum unfolds across a multi-level configuration, each floor organized according to a specific chronological and thematic narrative “Fig. 10,” “Fig. 11,” “Fig. 12,” “Fig. 13.” This vertical progression not only serves curatorial clarity but also reflects the metaphor of ascending the Sacred Rock of the Acropolis. Upon entry, visitors are led through a sloped ramp that evokes a processional route—a gradual ascent that parallels the topographical journey toward the ancient citadel. The vertical organization is further enhanced by a strong visual and spatial axis that extends from the ground floor toward the uppermost gallery. This axis, coupled with open volumes and transparency, establishes a hierarchy that is both physical and perceptual. Expansive glass façades and the building’s deliberate orientation offer continuous visual contact with the Parthenon, which functions as a powerful cognitive landmark. In doing so, the monument outside becomes an integral part of the museum’s internal wayfinding system, anchoring the visitor in both place and narrative (Kaplan & Kaplan, 1982; Lynch, 1960).

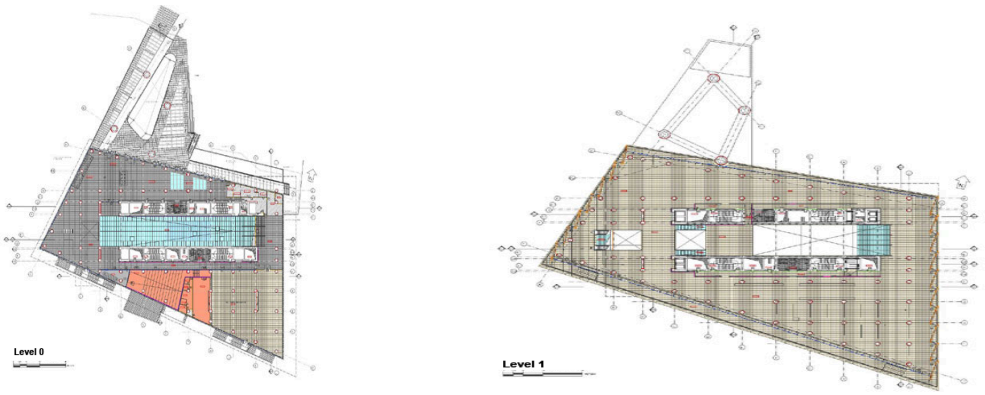

Fig. 10, Fig. 11. Level 0 plan on the left and Level 1 plan on the right of the Acropolis Museum architectural drawings by the Architect Bernard Tschumi.

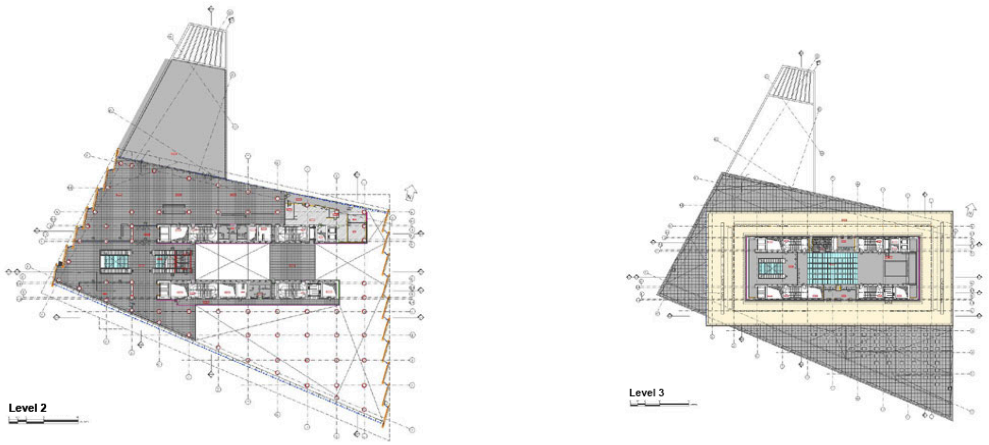

Fig. 12, Fig. 13. Level 2 plan on the left and Level 3 plan on the right of the Acropolis Museum architectural drawings by the Architect Bernard Tschumi.

4.3. Existing Wayfinding Through Architectural Elements

Wayfinding in the Acropolis Museum is not merely supported by architecture—it is embedded within it. The spatial route within the Acropolis Museum forms a three-dimensional loop, offering visitors a continuous architectural and spatial experience "Fig. 14." This path begins at the level of the archaeological excavation and ascends gradually through the museum's exhibition spaces, culminating in the Parthenon Gallery before looping back downward movement (Hillier & Hanson, 1984; Arthur & Passini, 1992). This upward movement metaphorically mirrors the historical ascent toward the Acropolis itself, guiding visitors through time as they navigate the architectural narrative "Fig. 15," "Fig. 16." A number of key architectural strategies contribute to a seamless navigation experience:

Sloped floors and linear galleries direct the visitor naturally along a prescribed path without the need for explicit instruction. Sightlines across floors and along corridors ensure continuity and prevent spatial disorientation.

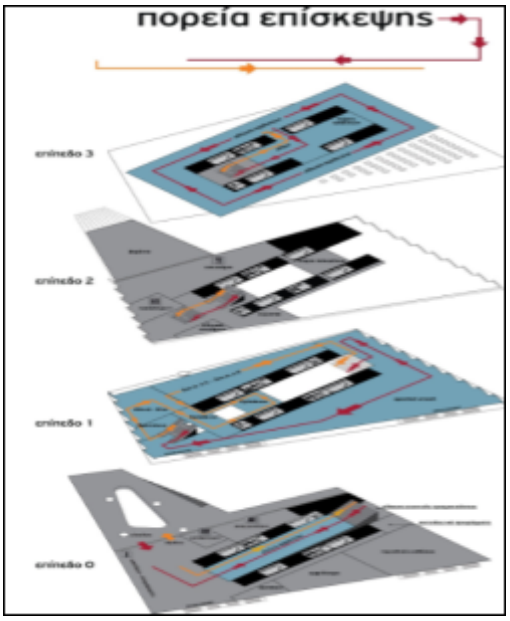

Fig. 14. Diagram showing the vertical and horizontal sequence of the visitor path through the levels of the Acropolis Museum

Fig. 15, Fig. 16. The existing directional signs in the Acropolis Museum located at key navigation points.

Vertical elements, such as strategically positioned staircases and escalators, are framed by shafts of natural light, reinforcing a sense of directionality. Natural light plays a central role in shaping the museum's atmosphere. Given that the museum primarily exhibits sculptural works, the lighting strategy

diverges from that of painting-based collections. Sculptures require varied lighting conditions that reveal depth, volume, and texture—features best accentuated by controlled daylight. The building employs expansive glass surfaces, translucent ceilings, and carefully placed openings to maximize the penetration of natural light while maintaining conservation standards.

Transitions in materials, such as the shift from solid concrete to transparent glass floors above the excavation site, signal changes in both narrative content and spatial context, aiding in cognitive mapping. Architecturally, the museum is organized around a central concrete core that mirrors the exact dimensions of the Parthenon frieze. This core houses the museum's support spaces, while the exhibition galleries unfold around it and within the surrounding atrium. The building itself is elevated on pilotis, carefully placed to preserve and protect the archaeological remains of the Makrygianni site beneath. In many areas, both inside and outside the structure, the floors are made of transparent materials, allowing visitors to visually engage with the antiquities below. One of the most iconic wayfinding gestures is the top floor's Parthenon Gallery, which mirrors the actual dimensions and orientation of the Parthenon itself. This spatial mirroring transforms the gallery into a destination—both a physical and conceptual climax of the museum visit—and a mnemonic anchor for the entire spatial experience.

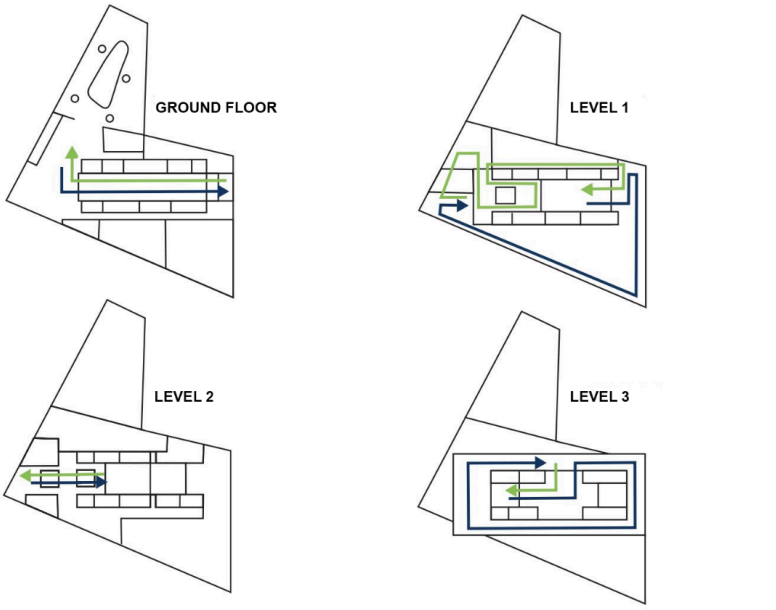

Fig. 17. Floor plan diagrams of the Acropolis Museum (Ground Floor, Level 1, Level 2, and Level 3), illustrating the visitor circulation route. Ascending paths are marked in blue, while descending paths are indicated in green.

From the standpoint of environmental psychology and spatial cognition, the museum's architecture encourages the formation of a coherent mental map. The building's clarity of form, repetitive spatial rhythms, and changing atmospheric conditions—ranging from ceiling heights to daylight intensity—provide visitors with a variety of subtle orientation cues. These help them recognize their position, anticipate transitions, and make sense of the spatial narrative without cognitive overload. Importantly, the museum's minimal use of signage reflects a curatorial philosophy that trusts the architecture to guide. Labels, texts, and directional signs are intentionally understated and seamlessly

integrated into the physical environment. It is believed, that this allows visitors to engage with the space more freely, constructing personal routes and interpretations, while still being subtly directed through the intended sequence.

In general, the Acropolis Museum presents its exhibits in chronological order, beginning with the Archaic period and culminating in artifacts from the Roman and Early Christian era in Athens. During the design phase of the building, the architect took this temporal structure into account, creating a path of ascent and descent that would be intuitively perceived by visitors, reflecting the historical periods represented by the artifacts—all of which originate exclusively from the Acropolis site. However, the decision to harmonize the existing signage with the architectural environment often renders it nearly invisible, particularly at critical transition points between levels, where visitors require additional guidance. It is important to emphasize the direction of ascent and descent at these key junctions with distinct color coding and visual cues that can be immediately recognized by visitors “Fig. 17.” A key and critical example is the space where the Caryatids are exhibited on the museum’s first level. Although, according to the chronological sequence of the collections, visitors are intended to encounter them during their descent, they are often captivated by the iconic and prominent positioning of the statues during their ascent. This visual emphasis frequently leads to a disruption in orientation and causes visitors to deviate from the intended narrative flow of the exhibition.

Fig. 18., Fig.19. Examples of wayfinding signs placed at key decision points within the Acropolis Museum.

Fig. 20., Fig. 21., Fig.22., Fig. 23. Examples of supportive wayfinding signage in the Acropolis Museum, strategically placed to guide visitors along the exhibition route.

Furthermore, it would be more practical for each level of the museum to be individually presented at every transition point “Fig. 18,” “Fig. 19.” This would help users more easily understand their current location and the route they should follow “Fig. 20,” “Fig. 21,” “Fig. 22,” “Fig. 23.” Even the background color of each sign could be rendered in a neutral, dark tone that would stand out within the

bright interior of the exhibition spaces, without interfering with or diminishing the visual impact of the marble artifacts. In this way, the museum balances spatial autonomy with narrative coherence, fostering a visitor experience that is not only educational but also immersive and emotionally resonant.

4.4. Visitor Experience Interpretation: Navigating Meaning through Space

Visitor experience within a museum is shaped not only by the exhibits themselves but also by the spatial, cognitive, and emotional journey through the building. In the case of the Acropolis Museum, spatial orientation and intuitive navigation are not merely functional—they are integral to how visitors make sense of the collection and form connections with the content. Observations and user reviews indicate that visitors often describe the museum as “clear,” “open,” and “easy to navigate.” The natural light and visual transparency abundance plays a central role in reducing spatial anxiety and supporting a sense of comfort.

It is a fact that even visitors who are visiting the Museum for the first time and are not familiar with the space layout, report that they do not feel disoriented when moving around the building. In particular, the visual contact with the Parthenon, where the architectural alignment through the glass element surrounding the Parthenon Gallery, functions as a reference point for visitors' emotions, confirming in the same time the effectiveness of the architectural design.

Visitor behavior confirms the effectiveness of this design. Observational studies suggest that most visitors follow the intended flow without needing explicit instructions, indicating the presence of what Passini (1996) describes as an “implicit grammar of navigation.” When signage is required, it is discreet and in keeping with the minimalist aesthetic of the building. While this minimalism enhances visual coherence, it can create challenges at transition zones between levels—especially for international visitors or users unfamiliar with spatial sequencing (Serrell, 1996).

The Acropolis Museum, while forming a solid building volume, is divided into three levels – zones. Essentially, the museum has a vertical structure, where each floor corresponds to a specific function. In this way, an upward course is defined within the building, where the exhibits follow a natural chronological and thematic evolution, starting naturally from the classical masterpieces from the wider Acropolis area. The visitor, therefore, following the architecture of the building is led from the ground floor to the third floor through sloping floors and open visual points, completing an ascent corresponding to the Acropolis ascent.

5. Discuss and Results

The findings of this study indicate that the Acropolis Museum successfully integrates architectural design, spatial planning, and environmental psychology to create an intuitive and engaging wayfinding experience. The methodology followed, such as on-site observations, spatial analysis and the evaluation of visitors' comments, contributed significantly to the identification of existing data regarding the spatial orientation and the wayfinding route of the Museum. The chronological narrative of the exhibits is reinforced by the ascent and descent routes, as well as by the symbolic reference point,

which is the constant visual contact of visitors with the Acropolis (Weisman, 1981; Peponis et al., 2004).

In fact, large buildings such as Museums also operate with distinct signage, when their spaces have been properly designed and the navigation in them is easily recognized by the users (Passini, 1984; Lynch, 1960). Furthermore, the simulation of a climb to the Sacred Rock of the Acropolis with the gradual upward course of the Museum up to the Parthenon Gallery is a unique experience for the visitors. It was also observed that most visitors followed the pre-planned ascent and descent route, where the exhibits were placed in chronological order.

Observing visitor behavior, it was confirmed that most visitors followed the intended route, according to the chronological sequence of the museum exhibits. Visitors' concerns were only presented in the transitional zones, such as in the café area or at the intersection between the Archaic Gallery and the staircase leading to the Parthenon Gallery. However, at the same time, some architectural details, such as lighting or material textures, functioned as orientation guides (Kaplan & Kaplan, 1982; Bitgood, 2011). Each visual spatial semiotic system is more than just a set of points because it includes architecture, landscape architecture, lighting, landmarks and wayfinding (Allen, 1999; Cheirchanteri, 2021).

Regarding the existing signage of the Museum, a minimalist approach was chosen, so as not to interfere with the exhibits and disorient the visitor. Discrete signage was placed where necessary, such as at the entrance, in the toilets and at the level changes to facilitate the visitors' circulation. (Serrell, 1996; Arthur & Passini, 1992).

Wayfinding in the Acropolis Museum contributes not only to navigation but also to the visitor's emotions, as it evokes a sense of ascent and discovery within the building itself, culminating in the unveiling of the Parthenon in the final room on the top (Tschumi, 2009). As visitors move through time – both historically and physically – they construct their own maps guided by the museum architecture (Hillier & Hanson, 1984; Uzzell, 1998).

Overall, visitor feedback and spatial analysis converge on a central idea: The Acropolis Museum achieves a balance between clarity of spatial signage and architectural design. The usability of the wayfinding system, integrated into the building's construction itself, simultaneously offers a spatial design model that enhances orientation and enriches the cultural experience.

6. Conclusion

This study has explored how wayfinding functions not merely as a navigational aid but as an integral component of spatial and interpretive design in the Acropolis Museum. Initially, analyzing the theoretical framework for wayfinding understanding in Museum spaces, the necessity of designing spatial signage in these spaces, was demonstrated. Also, both the buildings and the rooms of museums are now designed in accordance with the exhibits and the way they are placed in them in mind.

In the case of the Acropolis Museum, the architect-creator took into account the rare marble sculptures of the Sacred Rock monuments and tried to present them in such a way that they are not overshadowed by the rooms design and complexity in which they are hosted, but are protagonists in these spaces. The

reason, in fact, that emphasis was placed during the design of the museum on the transparency of the building and natural lighting was this.

According to the types of museum route design, the interventional floor plan model was followed, where the visitor follows a specific route during his tour within it. Regarding the navigation design of the Acropolis Museum, with supporting sign boards at key points, such as level changes, its existing and almost non-existent minimalist spatial signage, needs immediate intervention, in order to enhance the users' legibility of the museum spaces. In conclusion, the Acropolis Museum is a model for how wayfinding can be included in the initial design of Museums, offering spatial legibility and accessibility to users.

References

Allen, G.L. (1999). Spatial Abilities, Cognitive Maps, and Wayfinding: Bases for Individual Differences in Spatial Cognition and Behavior. Golledge, Wayfinding Behavior: Cognitive Mapping and Other Spatial Processes, pp. 47 -80.

Arthur, P., & Passini, R. (1992). Wayfinding: People, Signs, and Architecture. McGraw-Hill.

Braaksma, J., Asce, A., & Cook, J. (1980). Human orientation in transportation terminals. Transportation Engineering Journal, 2, pp. 189-203.

Bitgood, S. (2011). Social Design in Museums: The Psychology of Visitor Studies, Volume I. Left Coast Press.

Cheirchanteri, G. (2021). Architectural Wayfinding Design as a Means of Communication in Environmental Perception. Proceedings of the 6th WMCAUS Congress. Prague: IOP Publishing.

Creswell, J.W. (2013) Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. 4th Edition, SAGE Publications, Inc., London.

Falk, J. H., & Dierking, L. D. (2013). The Museum Experience Revisited. Walnut Creek, CA: Left Coast Press.

Hillier, B., & Hanson, J. (1984). The Social Logic of Space. Cambridge University Press.

Kaplan, R., & Kaplan, S. (1982). Cognition and environment: Functioning in an uncertain world. New York: Praeger.

Kaplan, R., & Kaplan, S. (1989). The Experience of Nature: A Psychological Perspective. Cambridge University Press.

Lynch, K. (1960). The image of the city. Cambridge: MIT Press, 1960.

Passini, R. E. (1984) Wayfinding in architecture, New York: Van Nostrand Reinhold.

Peponis, J., Dalton, N., Wineman, J., & Dalton, R. (2004). Measuring the effects of layout on visitor movement in museums. Environment and Planning B: Planning and Design, 31(5), 653–678.

Proulx, G. and Sime, J.D., (1991) To Prevent 'panic' In An Underground Emergency: WhyNot Tell People The Truth?, Fire Safety Science 3: 843-842

Serrell, B. (1996). Exhibit Labels: An Interpretive Approach. Walnut greek: Alta Mira Press.

Tschumi, B. (2009). The New Acropolis Museum: Architecture and Narrative. Acropolis Museum Publications.

Uzzell, D. (1998). Contemporary Issues in Heritage and Environmental Interpretation: Problems and Prospects. The Stationery Office.

Weisman, J. (1981). Evaluating architectural legibility: Way-finding in the built environment. Environment and Behavior, 13(2), 189–204.

Yin, R. K. (2009). Case study research: Design and methods (4th Ed.). Thousand Oaks, CA:Sage.