

SPATIAL AND EMOTIONAL CODING: A TOOL-CHAIN ANALYSIS OF THE NANJING MASSACRE MEMORIAL HALL

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1. Introduction

In 2025, the world commemorates the victory in the Anti-Fascist War for the eightieth year. The word Мемори́ал (Memorial) forged collective memories of trauma into a composite of steel and tears. Within the Chinese context, "纪念" (jìniàn, commemoration) means to remember so as to carry forward, expressing the pain of the nation and homeland, the suffering of the mountains and rivers, and the blood and tears of the people. It embodies the recollection of the history of invasion, solace for the innocent compatriots, and a warning for the future.

Memorial architecture translates memory into form, it plays a crucial role in commemorative activities. A memorial is not merely a container for history but a catalyst for emotion, which is the soul of memorial space. A memorial site resonates through diverse and appropriate elements, clear architectural language, and a unified spatial sequence, thereby creating a solemn, mournful, and grave spatial atmosphere. It forms spatial themes of life and death, grief, and pain, delivering a powerful psychological shock and resonance [5]. Within this, design techniques are of absolute importance; a place itself has no expressiveness. It is through the integration of the aforementioned design elements that it brings about a strong emotional experience. This paper, by analyzing the design elements of the "Memorial Hall of the Victims in Nanjing Massacre by Japanese Invaders," systematically deciphers how to read the design elements within a memorial space.

2. Overview of the Memorial Hall of the Victims in Nanjing Massacre by Japanese Invaders

Relevant Background

On July 7, 1937, Japan initiated the Marco Polo Bridge Incident, marking the beginning of its full-scale war of aggression against China. After capturing Nanjing on December 13, 1937, the Japanese army carried out a massacre lasting over 40 days against Chinese prisoners of war and civilians, resulting in 300,000 victims. Alongside the frenzied killing, the Japanese army committed a series of war crimes and crimes against humanity, including organized, planned, and premeditated rape, arson, and looting, lasting for six weeks. To commemorate this tragic history and the 300,000 victims, the Nanjing Municipal People's Government established the first phase of the Nanjing Massacre Victims Memorial Hall in 1985, with expansions completed in 2005 and 2015 [2].

Site Analysis

The Memorial Hall spans over 700 meters from east to west (fig. 1). The site is elongated and flat, resembling the shape of a "knife handle", with an east-west length of approximately over 700 meters and a north-south width of about 100 meters [8]. The depth perception is extremely intense. The narrow, elongated terrain inherently reinforces the progressive nature of the narrative sequence. The new hall (Phase II) and the old hall (Phase I) are connected via a central axis. The design and construction of the entire Memorial Hall centrally focus on the "mass grave" burial site, taking the victims as the primary historical subject. It renders an atmosphere of death and desolation. The treatment of the building masses is skillful, orderly, with a clear axis, creating a dignified and solemn impression.

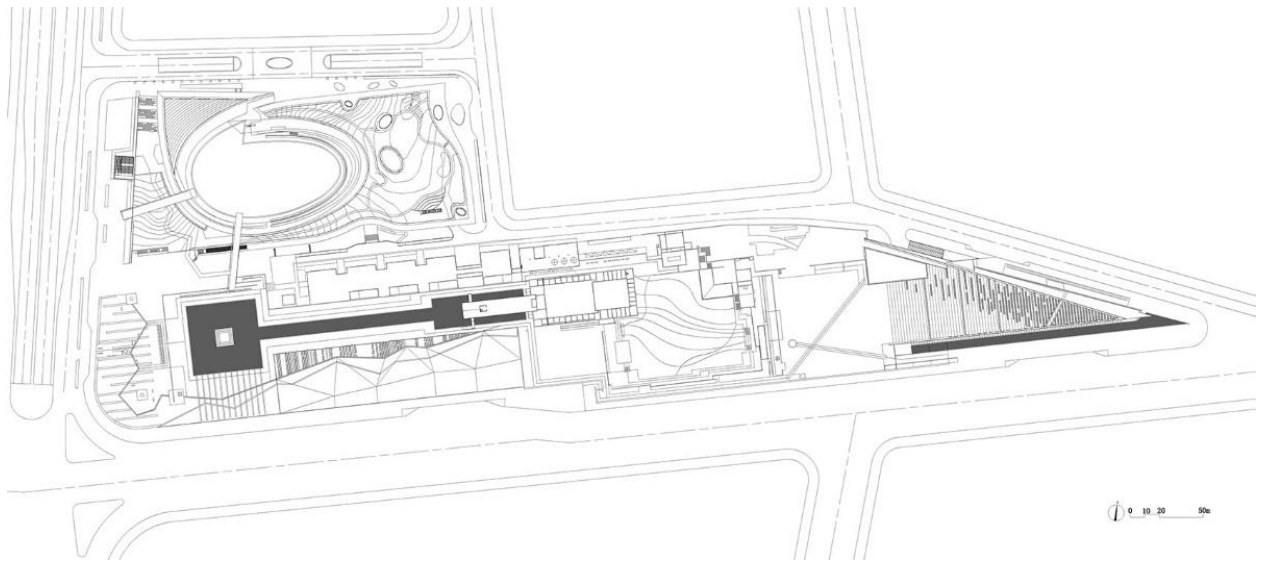


Fig. 1. General layout plan of the venue
(source – <https://gooood.cn> [8])

3. Analysis method

The essence of memorial space lies in leveraging the "site" – a site imbued with "emotion," a site capable of "expression" [5]. Through the atmosphere of the space and its specific sequence, it triggers emotional cognition in the visitor. However, a single-dimensional analysis struggles to clearly articulate the creation of atmosphere and emotion by the entire environment – the building, site, walls, trees, ramps, sculptures, etc. This paper employs a *three-layer framework theory* to analyze memorial space genius loci: namely, analysis through the *Physical Layer*, *Behavioral Layer*, and *Semantic Layer*. It aims to form a set of analytical logic and methods, thereby enabling its application to the analysis of other memorial halls and museums.

When discussing aesthetics, Hegel classified architecture alongside music. Indeed, drama, painting, and music can directly convey emotions to the audience, facilitating emotional communication. Musicians utilize combinations of elements like notes and instruments to form emotionally moving compositions. Architecture, conversely, employs physical space – the interplay of walls, roofs, doors, windows, and volumes – along with visual scenario to induce and regulate visitors' behavior.

Furthermore, it utilizes specific semantic symbols. These symbols are embedded within the unique cultural context of each nation, expressing different symbolic understandings inherent to each culture, thereby creating architectural forms with distinct characteristics [2].

Analysis of the Physical, Behavioral, and Semantic Layers deconstructs memorial space into three major components: "*Environmental Stimuli*," "*Bodily Feedback*," and "*Cultural Text*." This approach avoids the subjectivity inherent in purely sensorial descriptions while transcending the rationality of purely technical analysis. It infuses the analysis of memorial halls with a dual-decoding method of rationality and sensibility, forming a systematic toolkit.

4. Layer decoding

Physical Layer

To form a unique 'genius loci' (spirit of place), the organization of materials, scale, and light is indispensable as a constructive grammar of the Memorial Hall. They act like silent narrators, reshaping the emotional texture of history through material language – some walls tear through space at a 23° incline, rough black granite like unhealed scars, freezing the violence of war into an oppressive imbalance; some surfaces are clad with cold mirrors, forcing viewers to confront the interrogation of memory within their own reflections; some floors are densely covered with gray-white pebbles, whose rustling lament underfoot evokes the weeping of bleached bones [6]. The use of various forms and materials accompanies the shift in people's mood from solemnity to oppression and then to grief. In different spaces, it provokes diverse associations and recollections.



Fig. 2. The main building of the Memorial Hall
(source – <https://China.org.cn>)

The architectural massing of the Memorial Hall employs a technique of "mass disappearance," burying the main part underground, while the above-ground section resembles a broken knife plunged into the earth. The external walls adopt

an inclined form, creating a sharp angle pointing skyward on the exterior. This unconventional wall treatment symbolizes the chaotic and disordered state during the war, creating a sense of conflict. Simultaneously, the massive scale of the main building (fig. 2) ensures viewers feel an intense sense of oppression and psychological shock from the outset [6]. A prominent fissure runs through the middle of the Memorial Hall's outer wall. This imagery symbolizes the building itself as a broken military sword, also signifying the immense pain inflicted by the war upon the people and the nation.

Upon entering the memorial site, the surrounding walls employ an enclosing form (fig. 3). The towering walls create a solemn and immersive atmosphere, simultaneously symbolizing the inescapable despair of Nanjing city under siege in 1937.



Fig. 3. The enclosing walls of the Memorial Hall
(source – @bohe, via Xiaohongshu, <https://www.xiaohongshu.com>)

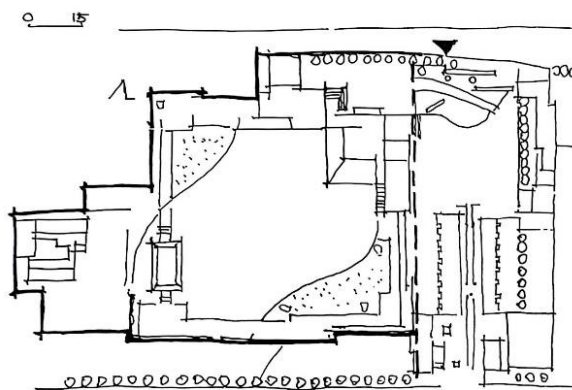
The central "Death Courtyard" (死亡之庭) within the site uses vast quantities of white pebbles for paving, symbolizing the countless bleached bones of the tens of thousands of victims. The material of the Memorial Hall's exterior walls is weathered and heavy stone, resembling skin that has endured hardship, further deepening the hall's solemn and grave atmosphere.

At the exit of the mass grave site, there is a long, narrow passage. To the right is a forest of steles arranged in neat rows. The stelae use polished black granite, reflecting the viewers' silhouettes. This evokes contemplation on the essence of life, shocks viewers with the suffering of the past, and heightens the appreciation of peace.

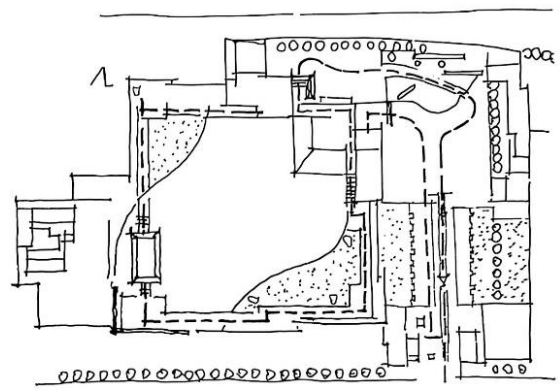
Behavioral Layer

The Memorial Hall is broadly divided into three main sections: War, Massacre, and Peace. This structure corresponds precisely to an overture, development, climax, and conclusion, allowing time to unfold with the spatial sequence, narrating the story slowly [8].

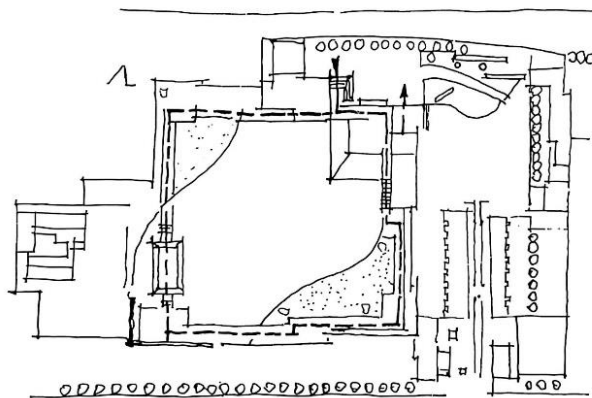
The eastern side is oppressive, enclosed, and isolated; the western side is open and bright. Outside the exhibition halls is desolation and bleakness; inside the halls is solemnity and gravity. The front part is fractured and sharp; the latter part is peaceful and dignified. The entire visiting process, shifting with the themes corresponding to the spaces, delivers different emotional experiences to the audience.



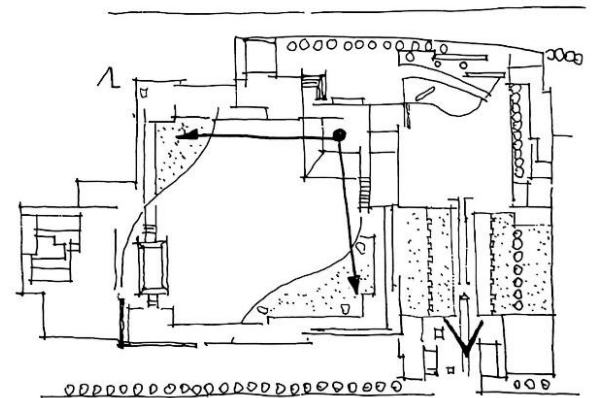
第一期工程范围
The Range of the First-phase Project
第一期工事範囲



一、二期工程流线分析
Streamline Analysis of the First-and Second-phase Project
一、二期工事流线分析



第一期工程流线分析
Streamline Analysis of the First-phase Project
第一期工事流线分析



纪念馆设在东北角高地上有最大视角和入口广场视角
Maximum Angle of View on the Northeast high-land
and the Angle of View on the Square at the Entrance
東北の方向の高地に設ける記念館は最大の視点と入
り口広場視野角がある

Fig. 4. The General Analysis of the Memorial Hall
(source – books of Qi Kang's architectural design works [2])

The spatial sequence of the Memorial Hall employs a technique of "breaking the large into the small," organically combining multiple indoor and outdoor spaces (fig. 4). The path design introduces visual scenario and strictly controls movement in a single direction, prohibiting backtracking. This symbolizes the

irreversible nature of history. Visitors move from dimly lit interiors to open courtyards and back. This constant switching between interior and exterior creates time for contemplation and ensures an emotional progression [5]. Through the fetters of the path, the sensory cage, and the alchemy of time, it transforms visitors into participants in the reenactment of history, completing the recollection of history amidst bodily tremors.

Semantic Layer

The spiritual core of the Memorial Hall's place is constituted by symbolic metaphors and the ritualistic sense of memory. The sculpture group at the entrance (fig. 5) freezes moments of flight with contorted limbs. The hollow, skyward gaze of the mother in "Family Ruined and Members Lost" (家破人亡) condenses individual suffering into a national emblem of tragedy. Among the sculptures: a mother despairingly mourns her murdered son; unarmed civilians drag their families struggling to flee; a young girl, violated by beasts, leaps into the river in grief and indignation... These frozen moments are like a spiritual exodus [7].

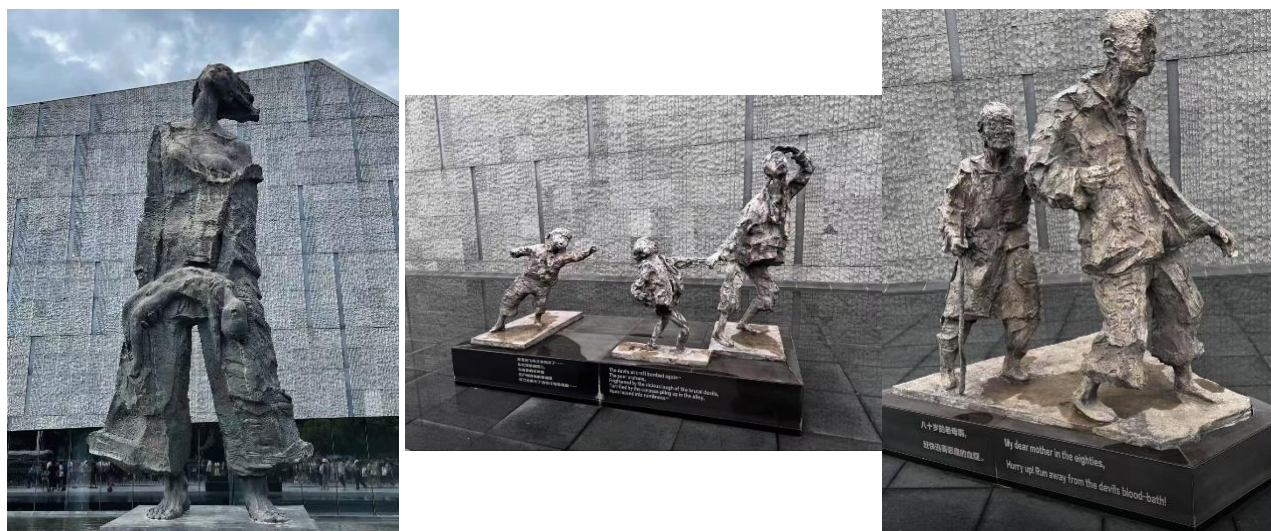


Fig. 5. The sculpture group of the memorial hall
(source – photographed by the author)

The "300,000" symbol reflects the viewers' pale silhouettes on mirrored granite, allowing the statistical number to regain flesh and blood at this moment, warning people never to forget this slaughter (fig. 6).

Exiting the Contemplation Hall (冥思厅), along the water surface, the V-shaped sculpture "The Voice of Victory" (胜利之声), 140 meters long and 8 meters high, gradually extends on the side of the Peace Park (fig. 7). It comprehensively depicts the 14-year war against the aggressors—the nation's suffering, pain, struggle, unyielding spirit, and ultimate rising.

In the Nanjing Memorial Hall, sculpture becomes the most vivid element in shaping the genius loci. As viewers pass by these sculptures, they spiritually converge with the souls within them, like a dialogue transcending time and space, hearing their accusations and demands for justice [6].



Fig. 6. The atrium space of the Memorial Hall (source – official website of the Memorial Hall of the Victims in Nanjing Massacre by Japanese Invaders, <https://tinyurl.com/4wh9r64x>)

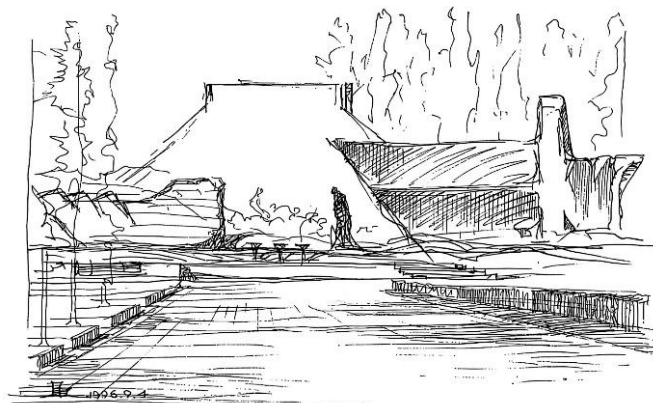
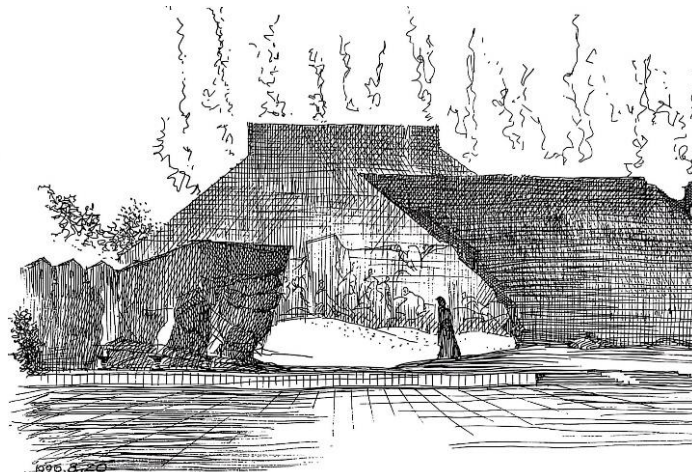


Fig. 7. Two variants of the main sculpture design
(source – books of Qi Kang's architectural design works [2])

Within the analyzed Memorial Hall, the stark contrast between life and death, the horrific slaughter and atrocities, and the desperate grief and indignation of the 300,000 deceased constitute the most prominent content of the place's spirit.

Walls, water reflections, stones, and sculptures all become elements expressing the environmental atmosphere. By integrating the three layers – Physical, Behavioral, and Semantic – from the "entry" created by enclosing high walls and sculptures of wronged souls, to the "immersion" within dark spaces and the mass grave site, then the "transformation" through mirror reflections and autonomous contemplation, and finally culminating in the "release" offered by the open water surface and peace symbols – a unified and holistic design is formed, aptly expressing the spirit of this unique place.

Conclusion

The Memorial Hall of the Victims in Nanjing Massacre by Japanese Invaders is not merely an architectural design; it is a place-making endeavor expressing people's sorrow and remembrance of the Nanjing Massacre event. It is an emotional experience and a baptism of the soul. Transcending the mere functional use of architecture and the cognitive viewing of space, the place-making of the Memorial Hall provides visual emotional experiences and a complete process of consciousness. It forms an orderly and systematic observation path system. Being within it, history vividly unfolds before one's eyes, and a sense of profound grief spontaneously arises.

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