

The Ecological Aesthetics of Funeral Architecture towards Death: A Case Study of Tomba Brion Family Cemetery

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Abstract This paper discusses the design of funeral architecture with ecological aesthetics as the entry point, and makes a poetic interpretation of the gardening techniques and spiritual connotation of Tomba Brion Family Cemetery, a funeral architecture, in combination with architecture, ecological design aesthetics, landscape ecology, oriental aesthetics and other disciplines to explore the unique charm of the architectural field related to death for life, trying to provide the reference value of ecological aesthetics for the development of funeral architecture.

Keywords Funeral architecture, Ecological aesthetics, Brion Family Cemetery, Scarpa

DOI 10.16785/j.issn 1943-989x.2023.3.020

Chinese ancients once said, “Life and death are real great.” Since the birth of human beings, life and death, as an objective existence, have been accompanied by the development of human society. This closely related materialistic dialectical relationship affects human civilization. Compared with “life”, death is the most taboo word in people’s mind. Despite this, people still want to be full of dreams and hopes for the “other side” after their death. Funeral architecture, as the name suggests, is the building built for the deceased, and also carries the grief of the living towards the deceased, with the nature of memorial space^[1]. Therefore, funeral architecture bearing death has been an important part of urban construction since ancient times, and an important symbol of human material and spiritual civilization^[2]. There are outstanding funeral architectures in the history of both Eastern and Western architecture. The Great Pyramids, Taj Mahal, Mausoleum of the First Qin Emperor, etc., are now famous scenic spots. In modern times, the design of Sun Yat-sen Mausoleum in Nanjing and Tama Mausoleum in Japan are also very representative. Igualada Cemetery, San Cataldo Cemetery, and Kaze-No-Oka Cemetery in modern times are examples^[3].

In the nature, many animals mourn the loss of their companions, such as bees, macaques, grey cranes, elephants and so on^[4]. Man is also a child of nature, and the unique monumental architecture and landscape are extremely difficult to design. Funeral architecture pays special attention to the harmonious coexistence of spirit and natural environment in the design, and is inseparable from the natural ecology, no matter from the architecture itself or people’s original psychology, as well as its internal and

external environment. The body turns into dust and sleeps forever in the funeral building, which essentially is an ecological process and a circular and special form of human being’s return to nature from birth to death.

1 Brief introduction of ecological aesthetics of funeral architecture

In China, the design of modern funeral architecture is relatively weak, and non-ecological modern funeral design is against the trend of sustainable development design around the world. Therefore, it can be said that funeral architecture is the key topic of ecological issues, but also the key issue that people should be concerned about in the sustainable life. But it was not until modern decades that foreign researchers gradually carried on the ecological exploration of funeral architecture.

Ecological aesthetics consist of natural ecological aesthetics and humanistic ecological aesthetics. The aesthetics of natural landscape is the main perceptual manifestation of ecosystem. Humanistic ecological aesthetics is the expression of humanistic ecological beauty through human’s design and transformation of the original land, coupled with the detailed design of materials and nodes with certain cultural spiritual connotation. Brion Family Cemetery is a typical example of ecological aesthetics combining nature and humanity. Taking the memorial space of funeral architecture as the theme, multiple repetitive components and design techniques that can reflect the spiritual connotation of the designer are used to display ecological aesthetics in all aspects of the cemetery, thus becoming a representative masterpiece of Scarpa.

2 Overview of Brion Family Cemetery

Brion Family Cemetery, designed by Italian architect Carlo Alberto Scarpa, is located in Treviso San Vito d’Altivole, northern Italy. It was built between 1969 and 1978, with an area of about 2,200 m². It abuts the local village cemetery to the southwest and is surrounded by extensive and quiet fields. Scarpa was commissioned by Madame Brion to design a cemetery in memory of her late husband, the Italian industrialist Monsieur Brion, where Scarpa was also finally laid to rest^[5] (Fig.1).

There are green vines climbing against the walls, virid water lilies full of strong fragrance, and ubiquitous buds breeding in stone cracks and brick gap...cypress, lotus, maple—the maple tree where the church joined the veranda was probably only a sapling when the cemetery was first built, but now it has grown into a super tree. These very eastern images grow more colorful with the four seasons year after year, and they pass away together with the cemetery (Fig.2).

Scarpa, who appreciated Baudelaire, did not accept that death must be dark, desperate and terminal, but regarded it as the origin of life, and the cemetery supported life, being the carrier of the deceased’s memory and the circulation and cycle of fate^[6].

Scarpa spent much of his life in Venice^[7], so much so that many elements in the cemetery were heavily influenced by Venetian stained glass. The family church is full of all kinds of windows to create a sense of light atmosphere: Vertical floor-to-ceiling windows, square skylights, open and closed picture windows, etc. These exquisite windows combine with the reflection of the water, making the interior light variegated, ingenious but solemn.

3 Ecological aesthetics of Brion Family Cemetery

3.1 Rational and concise humanistic ecological aesthetics

3.1.1 The beauty of balanced layout. Combined with the layout of the original cemetery, the cemetery is half-surrounded by a concise and lively “L” shape, which makes the whole plot complete and fit in with the surrounding area (Fig.3). Small and exquisite cemetery can allow people to view varying sceneries with changing view-points, and roaming layout is convenient for visitors to design their own tour route. The cemetery has a main entrance and a church secondary entrance. The main entrance connects to cemetery and is for most visitors; the second entrance leads to the church and directly reaches the family cemetery, which is convenient for family members to sacrifice. The well-designed plane layout not only realizes the basic function, but also forms a personalized sightseeing route, similar to a chic small garden.

The family church, main burial chamber and meditation pavilion are properly distributed, forming a stable triangle. The slightly tilted low wall enclosing the cemetery is both open and hidden, with a kind of spatial permeability of breathing. The main burial chamber, where the Brions are located, is located at the “L” corner of the cemetery and is the center of the whole cemetery, highlighting its status^[8] (Fig.4). The water body design is interspersed naturally, subtly weakening the corner of the terrain, and forming a kind of balanced aesthetic feeling. The sound layout creates favorable preconditions for building and landscape that grow on them (Fig.5).

The design of the main cemetery road also refers to the overall layout of the cemetery base, and each part of the buildings is accompanied by secondary roads. The paving material of cemetery road also depends on the overall function of the cemetery. The ground at the main entrance of the cemetery is covered with small white stones with a natural atmosphere. The entrance corridor is laid with regular rectangular marbles, and the use of small square bricks in the sunken cemetery road connecting the corridor produces secondary changes^[9]. At the same time, the primary and secondary relationships are also clearly distinguished in the paving (Fig.6). The main burial chamber is paved with marbles, while the family cemetery is paved with small square bricks, echoing the entrance corridor and sunken cemetery road mentioned above (Fig.7). The paved floor near the second entrance is made of long marbles, and some grass sprouts and moss cover the gaps, making

the cemetery road have an orderly vitality. These cemetery roads and paved areas are arranged in different directions to form a new harmonious rhythm, giving rise to a unique balanced rhythm of the place.

3.1.2 The beauty of spatial sequences. There are four main buildings in the cemetery: Meditation pavilion, main burial chamber, Brion Family Cemetery, and family church. An entrance corridor is set up separately at the entrance to distinguish from the cemetery (Fig.8). The four corners of the church are located at the midpoint of each side of the square pond, and regular water walking stones are connected to the grass outside the pond. People walk towards the building through a round arch (Fig.9). “Circle” softens the sharpness and stiffness of the space composed of simple lines, which fits the peaceful atmosphere in the cemetery.

Long linear floor-to-ceiling window divides the wall reasonably, highlighting the spatial order^[10]. The pulpit is on the other side of the floor-to-ceiling window, and on the sloping rear wall are many small exquisite square windows, through which the view seems to be frozen in a picture frame (Fig.10). The sun pours from a small opening in the pyramid-shaped top above the pulpit, filling the small but uncramped space with mystery. The overall dark church is equipped with a variety of floor-to-ceiling windows, skylights, small square windows and ground windows, so that light can penetrate from various angles and fall on various woods, glasses and metal components in the church, presenting the effect of light and shadow flow.

The family cemetery is located next to the family church, and can be reached by following a sunken footpath (Fig.11). Other members of the Brion family are buried there. Perhaps to avoid too much intrusion, the family cemetery is very low-key in the overall style of the cemetery, compared to the church, meditation pavilion, main burial chamber and other buildings. There is a small recess above the chamber, through which the sunlight can penetrate, so that it does not look gloomy.

The cemetery expresses respect for the dead constantly in the details. The sloping walls that enclose the cemetery make it hard to hunch along cautiously, and the arched main chamber is called “Arcosolium”. This is a Latin term that can be traced back to the catacombs of early Christianity, indicating the exalted status of the owner^[5]. Scarpa once said, “It is very touching when people who love each other in life love each other after death.”

The coffins are exquisitely designed, with

two coffins tilted inward towards each other as if they are about to hug each other. This special design makes it possible for visitors from later generations to feel the genuine love of Brion and his wife.

Located at the top of the “L” shape and to the right of the main entrance, the meditation pavilion overhangs a square pool of water, and people will be suddenly enlightened when walking through a dark, narrow corridor.

The entrance corridor acts as a bridge that separates the Brion Family Cemetery from the village cemetery and connects the meditation pavilion and the rest of the cemetery^[11]. The design here has a rich sense of internal layering. Two mosaic tile rings, one red and one blue, overlap each other, forming a frame scene (Fig.12). At the top of the narrow corridor, a small ventilation slot is opened, and the sunlight diffuses through the top and the ring, forming a rich light and shadow. The exit of the corridor is decorated with yellow mosaic veneer of small broken bricks. The red, yellow and blue primary color collocation brings vitality to the corridor with a gray tone.

The shape of the walls is also unique. The low walls around the cemetery are tilted back, and a leaky window is set at the junction of the two walls, forming a visual effect of “leaking through scenery”. People can look at the surrounding villages in the cemetery, and leaky window reduces the hard visual sensation caused by the collision between the straight walls on both sides (Fig.13).

Unidirectional line of sight caused by the special angle of leaky window makes the cemetery still relatively hidden. All the uniformly colored fair-faced concrete buildings and structures still convey the solemn tone with the gray tone, and the whole cemetery looks extremely unified. In addition, a large number of mosaic bricks rich in Venetian style are flexibly decorated in the environmental architecture of the cemetery by Scarpa. The combination of the two materials makes the collocation more lively. A large number of overlapping decorative lines are used to soften the rich picture, so as to reduce the sense of building volume and make the buildings more rhythmic. The interlacing round pictures are also constantly produced from the architecture, implying the respect for nature and life everywhere.

3.2 The natural ecological aesthetics of perceptual tranquility

3.2.1 The beauty of still waters with slow flow. The setting of water body is very important for an ecological funeral architecture. The still

water in the Brion Family Cemetery, attached to the family church, main burial chamber and meditation pavilion, connects the whole cemetery along the cemetery road (Fig.14). The meditation pavilion in the southeast corner is built on the steps of the pool, under which the water body forms a linear shallow canal with the footpath, slowly shrinks and extends north to the main burial chamber, and finally disappears in a double-ring groove at the end. Near the main burial chamber, water flows into a circular pool that connects a large and a small pool (Fig.15).

The linear structure increases the connection between the buildings and guides the view forward^[12]. The family church at the northwest corner is located in a separate square pond, with long, narrow floor-to-ceiling windows that reflect ripples into the interior, creating a flow of light and shadow.

The addition of the “water” element makes the whole cemetery full of vitality, and the water fills the holes in the concrete surface, smoothing out the potholes and depressions, and bringing everything back to peace.

3.2.2 The beauty of abundant vegetation. Scarpa’s original vision for the Brion Family Cemetery was to create a garden full of greenery. “I feel I am going for a rural sensibility, just like Brion expected, where everyone would be happy, where children would play, where dogs would run, and where all cemeteries should be,” Scarpa said. There are about 30 botanical landscapes in the cemetery (Fig.16). In front of the main entrance is a narrow path covered with pines and cypresses, which is long and narrow and has strong guidance (Fig.17). The plant barrier blocks



Fig.1 The main entrance of Brion Family Cemetery



Fig.2 Water lily with a strong sense of oriental beauty

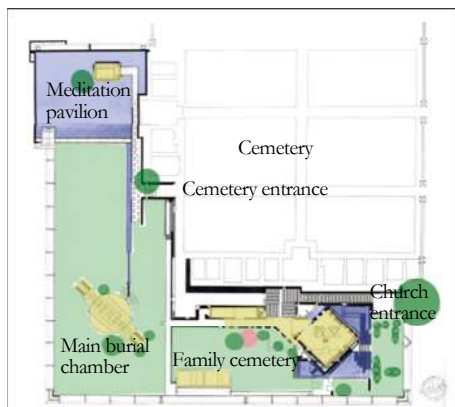


Fig.3 The plane layout of Brion Family Cemetery



Fig.4 The center of the cemetery—the main burial chamber

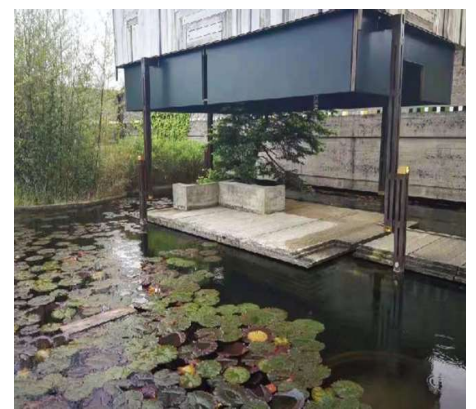


Fig.5 Meditation pavilion

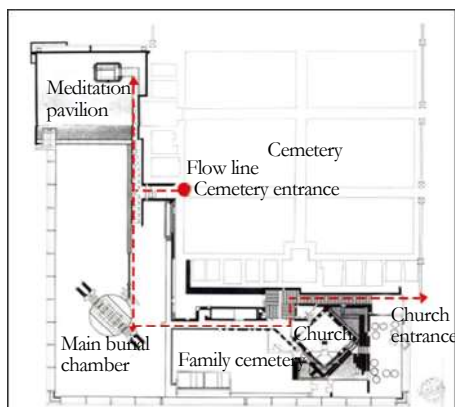


Fig.6 Flow line of family cemetery road

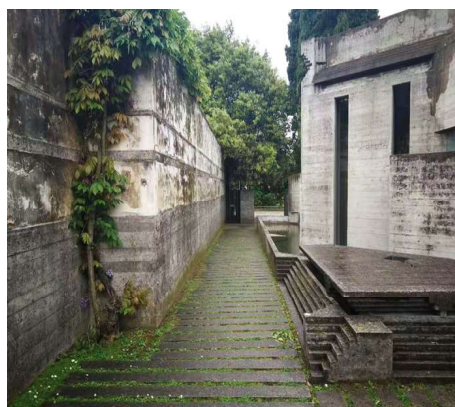


Fig.7 Sunken cemetery road

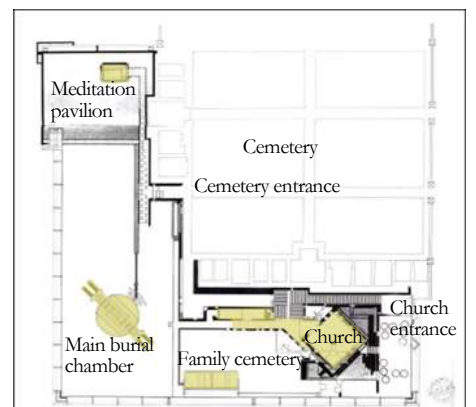


Fig.8 Architectural sequence of family cemetery

people's sight to both sides, creating a solemn and quiet atmosphere.

Climbing plants cover the walls and part of the roof of the building, making the design of the whole building closer to nature, in line with

Scarpa's original intention of "full of greenery". Carefully trimmed falling branches constitute the frame view and guide the view into the interior of the cemetery. There are several calla lilies at the main entrance, and the long corridor into the

cemetery is lined with red maple trees. Pine and cypress are planted at the side entrance, shielding the peeping of pedestrians outside. White and pink water lilies are found in pools surrounded by the family church and meditation pavilion.



Fig.9 The round arch of the family church



Fig.10 The interior of the church



Fig.11 Sunken footpath



Fig.12 Red and blue mosaic brick rings



Fig.13 A low wall that slopes inward

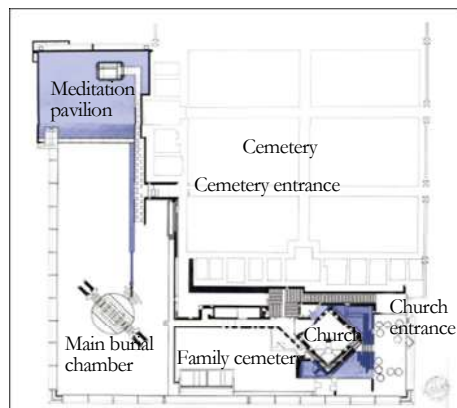


Fig.14 Water body settings of the family cemetery



Fig.15 A corner of the pool outside the church

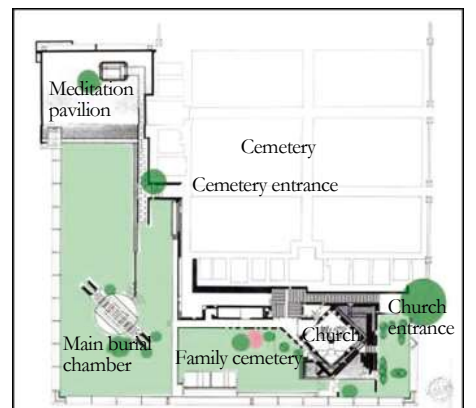


Fig.16 Plant landscape distribution of family cemetery

The two lily pools form a striking contrast of density and color. Under the meditation pavilion, a solitary cypress tree is kept slanting, which is full of zen interest in space (Fig.18). Hemispherical shrubs surround the main burial chamber, complementing its streamlined vault. There are also some roses planted nearby to convey a warm and beautiful spiritual sustenance. Climbing plants are also planted on the low walls around the cemetery. The vertical green plants allow the green of life to spread freely and make the hard and cold structures look softer. Large area of fluffy shallow lawns is corresponded to well-spaced trees, forming an open space that will give people a relaxed feeling. Rich and diverse plant planting in spring, summer, autumn and winter also has a change of time sequence, such as shallow grass and prosperous lotus, red maple and green cypress.

4 Scarpa's poetic ecological aesthetics

Scarpa was good at finding universal laws about the nature of things, and all the elements in the cemetery were spiritual in common. It was

the common characteristics of his architecture, landscape, garden and other designs that made him stand out among his contemporaries in Italy. Scarpa's works were always filled with the idea of landscape ecology, which was even promoted as "the landscape genesis of architecture" by Giovonti. He skillfully combined the western (especially English garden design) pictorial landscape with the eastern visual guide of "borrowing scenery", making the cemetery with a high degree of narrative full of oriental freehand style at the same time^[13] (Fig.19).

Scarpa's design was both emotional and rational. In some aspects, he was more like a painter, and his works were free and easy. But he was very rational in the processing of details, repeatedly using the same element to emphasize the order of space: Ziggurat not only surrounds the family church, but also extends underwater, making the buildings above the water connected with the constructions below the water (Fig.20). It seems like a metaphor for life and death, emptiness and reality, and coming and going, and that is exactly what a cemetery conveys.



Fig.17 Botanical landscaping at the main entrance



Fig.18 Cypress trees in the cemetery



Fig.19 A corner of borrowing scenery in order design language



Fig.20 Underwater architectural reflection and fish

5 Conclusions

People should observe the proper etiquette in arranging the funerals of the deceased; hold the memorials ceremony and commemorate their anniversaries with utmost sincerity and; serve departed ones as if they were still alive. The high degree of ecological aesthetics reflected by Brion Family Cemetery has an important reference value and significance for the future transformation of funeral architecture mode. Funeral architecture returns the starting point of death to the garden-like ecology and lives towards death. Such cleverly designed memorial space that is harmonious with nature and full of poetry is worthy of people's pursuit and yearning.

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