

From Components to Semantics: A Study on the Spatial Configuration and Cultural Encoding Mechanism of Guangfu Plaster Sculpture Imagery

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Abstract: This study focuses on the visual configuration and cultural semantic mechanisms of Guangfu plaster sculpture in traditional architecture. It proposes a three-dimensional nested model of “Image–Component–Semantics” to explore how plaster imagery is functionally configured and culturally encoded through architectural components. Based on case studies of iconic sites such as the Chen Clan Ancestral Hall and Foshan Zumiao Temple, the analysis reveals that Guangfu plaster images are systematically organized according to the functional roles of components, conveying hierarchical values, cultural identity, and emotional symbolism. The image arrangements align with spatial viewing sequences—“looking up – entering – passing through”—to create dynamic visual guidance. The repetitive use and compositional patterns of images across components contribute to the construction of collective memory and the transmission of core cultural values. This research highlights the non-neutral role of components in visual cultural construction, expands the spatial-semantic dimension of decorative art studies, and provides theoretical support for the digital dissemination and contemporary expression of traditional image systems.

Keywords: Guangfu plaster sculpture; image–component relationship; spatial movement; cultural encoding; visual semantics; collective memory.

1. Introduction

As a significant decorative art form in traditional architecture of the Lingnan region, Guangfu plaster sculpture is widely applied to architectural components such as ancestral halls, temples, and residential buildings. Its image system integrates diverse elements including figures, animals, plants, objects, and calligraphy, presenting rich folkloric symbolism and spatial aesthetic characteristics (Peng, 2015; Liu Bing & He Yang, 2020)[1][2]. Through long-term evolution, these images have served not only a decorative function but also, by being precisely affixed to spatial components, played a role in constructing ritual order and cultural identity—thus becoming highly encoded visual carriers in regional architectural culture.

Although existing research has sufficiently discussed the historical origins, thematic content, and visual styles of Guangfu plaster sculpture (Fu Rong, 2020; Shen Li, 2022)[3][4], most studies focus on the images themselves or the decorative styles, with limited attention to their functional positioning and semantic coupling mechanisms within architectural space. In particular, there is a lack of systematic research on how plaster imagery responds to the spatial properties of different components to realize layered visual semantics and cultural nesting.

This study takes the nested relationship of “Image–Component–Semantics” as its theoretical axis, proposing that plaster components are not neutral decorative platforms, but rather semantic nodes of visual cultural logic. Through comprehensive analysis of image distribution patterns, functional attributes of components, and visual path organization in typical buildings, it aims to reveal the mechanisms by which Guangfu plaster imagery constructs ritual order, social structure, and cultural meaning within space—thus filling the gap left by existing studies focused on

stylistic or narrative mechanisms.

This research adopts methods including image typology, spatial path analysis, and semantic nesting model construction. Drawing on field investigations and literature-based image data, it selects representative cases such as the Chen Clan Ancestral Hall, Foshan Ancestral Temple, and Liang Garden for systematic analysis. The aim is to clarify the functional logic of plaster imagery within spatial components, thereby enriching the research path of image semantics and spatial-cultural interaction in traditional Chinese decorative art.

2. Typology of Components and Patterns of Image Configuration

2.1. Functional Partitioning and Spatial Distribution of Plaster Components

In Guangfu traditional architecture, the spatial structure is characterized by distinct hierarchies and clear orders. Plaster sculpture, as an architectural surface decoration, follows a strict spatial logic of functional division. Different architectural components serve specific visual and cultural roles, which directly influence the thematic selection and visual arrangement of the images they carry.

Common plaster components include: Roof ridges and pediments: Located at the visual apex, these components typically convey clan ritual significance and family honor, highlighting social hierarchy and centrality;

Lintels and screen walls: Positioned at entrances and transitional nodes, they mark ceremonial and welcoming spaces;

Side corridors and auxiliary halls: As secondary zones, these carry images conveying everyday aspirations and emotional expression;

Beams, brackets, and detailed fittings: These minor

elements often hold small or repetitive motifs that contribute to rhythmic continuation and decorative coherence (Peng, 2015)[1].

Such functional zoning of components not only reflects the usage of spatial areas but also serves as a structural basis for image configuration.

2.2. Thematic Correspondence Between Image Subjects and Component Types

The selection of plaster imagery is not random. It aligns systematically with the function and context of architectural components, forming a triadic correlation of “component–image–meaning.” The table below summarizes common correlations:

Table 1. Correlation Between Component Types, Image Motifs, and Semantic Interpretation in Guangfu Plaster Sculpture

Component Location	Representative Motifs	Semantic Interpretation
Roof ridge / Pediment	Fu–Lu–Shou, Laurel Success, Qilin with Child	Symbolizing honor, hierarchy, and fertility
Lintel / Screen wall	Eight Immortals, Carp Leaping over the Dragon Gate, Hundred Sons	Ceremonial welcome, aspiration for official rank and prosperity
Corridor / Side hall	Pine and Crane, Phoenix Couple, Five Sons Passing Exams	Wishes for longevity, marriage, fertility, and harmony
Beam / Decorative details	Birds and Flowers, Auspicious Characters, Bats	Supplementary embellishment and symbolic enhancement

This motif-component correspondence constructs a spatially embedded narrative system with clear cultural hierarchies and visual order.

2.3. Visual Characteristics and Structural Styles of Image Compositions

The compositional styles of images on plaster components follow identifiable patterns:

Horizontal unfolding: Used on extended components such as pediments and screen walls to create complete narrative sequences;

Symmetrical focus: Applied to visual centers like lintels and ridges, emphasizing ceremonial centrality;

Nested combination: Seen in beams and wall panels, where repeated motifs build decorative rhythm;

Scattered arrangement: Common in secondary areas like corridors and side rooms, generating transitional ambiance (Zhang, 2023; Liu, 2020)[4][6].

These styles correspond to component functions, serving both aesthetic and symbolic communicative purposes.

2.4. Preliminary Exploration of the Image–Component Encoding Mechanism

Overall, the arrangement of images in Guangfu plaster sculpture is not a case of images dominating over components. Rather, the spatial positioning and functional nature of components dictate the content, form, and meaning of the imagery. A preliminary encoding mechanism may be summarized as follows:

Function-driven: Component location determines image category;

Semantic concentration: Core components carry images with high symbolic density;

Rhythmic enhancement: Secondary components add visual rhythm and atmosphere;

Repetition-based reinforcement: Key themes recur across components to form collective memory.

This mechanism reveals that the plaster imagery system has transcended mere decoration, functioning as a visualized medium for cultural transmission embedded in architectural structure.

3. Spatial Routes and Visual Guidance Mechanisms

3.1. Spatial Structure and Viewing Paths of Guangfu Architecture

The traditional layout of Guangfu architecture emphasizes “central axis symmetry and ritual hierarchy.” Its spatial sequence unfolds gradually through gatehouses, front halls, central halls, and rear chambers, accompanied by auxiliary spaces such as courtyards and side corridors, forming a visual path of “looking upward – entering – traversing” (Chen, 2022)[7]. Plaster imagery is embedded in key architectural components and aligns closely with the viewer's path, jointly constructing a concrete system of visual guidance.

3.2. Upward Viewpoint: Symbolic Construction of the Visual Focal Point

Ridges and gable ornaments occupy the highest point in the visual field and serve as the first interface encountered by the viewer. These often feature highly symbolic themes such as “Fu, Lu, Shou” (Blessing, Prosperity, Longevity) and “Rising to Eminence,” composed with symmetrical and focused layouts that convey family honor and spatial authority, thus forming a “sacred entry” in visual terms (Peng, 2015)[1]. Their elevated position reinforces the sense of ritual and establishes the symbolic and perceptual order of the space.

3.3. Entry Nodes: Narrative Development and Functional Cues

As transitional architectural components, door plaques and screen walls commonly feature themes like “Eight Immortals Celebrating Longevity,” “Carp Leaping over the Dragon Gate,” and “Hundred Sons.” These images are typically laid out in horizontally expansive compositions, creating a sense of visual continuity and narrative development that not only guides movement but also implies a shift in social identity (Zhang, 2023)[5]. Displayed at a lower visual angle, these images enhance viewer intimacy and cultural interactivity, serving as crucial thresholds between exterior and interior space.

3.4. Transitional Segments: Rhythmic Control and Emotional Atmosphere

In transitional spaces such as side corridors and wing rooms, plaster imagery becomes smaller in scale and more life-oriented in subject matter, such as “Longevity with Pine and Cranes” or “Phoenix Pair in Harmony.” These images strengthen the emotional tone and ambient character of the space. Compositionally, they tend to employ symmetrical or scattered arrangements that align with the architectural rhythm, easing visual tension and constructing a gentle and cohesive viewing experience (Liang, 2021)[9].

3.5. Coordination Between Image Logic and Spatial Movement

Overall, the plaster image system exhibits the following mechanisms: correspondence between thematic segments and spatial routes, alignment between compositional forms and viewing angles, progressive layering of semantic meanings, and rhythmic repetition for memory reinforcement (Liu, 2020; Zhu, 2020)[6][13]. These mechanisms allow the imagery to transcend mere decoration and become a leading factor in “visual pathways,” reflecting a synergistic coupling of spatial architecture and visual semantics.

4. The Nesting Mechanism of Image–Component–Semantics

4.1. Theoretical Foundations and Structural Model of Nesting Relationships

In the architectural context of Guangfu plaster sculpture, images do not exist in isolation but are embedded within architectural components and participate in the expression of cultural semantics through these components. This mechanism manifests as a structural coupling among image content, component function, and cultural meaning. Drawing on perspectives from architectural semiotics and spatial semantics, this study proposes a “Image–Component–Semantics” tripartite nesting model (Zhu, 2020; Huang, 2023)[13].

This model contains three core relationships:

Component Dependency: Image themes are determined by the spatial function and location of the component.

Semantic Transmission: The spatial context of the component guides the presentation of cultural meaning.

Narrative Coordination: Image combinations form symbolic chains and integrated semantic systems.

4.2. Case Analysis of Component–Image–Semantic Coupling

(1) Main Hall Ridge: High-Semantic Zone of Authority Symbolism

As the central visual focal point of the architectural axis, the main hall ridge commonly features motifs such as “Fu, Lu, Shou” and “Rising to Eminence,” symbolizing family honor and hereditary status. These elevated components enhance spatial authority and represent the strongest coupling between components and semantics (Peng, 2015; Chen, 2022)[1][7].

(2) Door Plaques and Screen Walls: Ritual Thresholds of Visual Guidance

Located in transitional spatial zones, door plaques and screen walls often display motifs like “Carp Leaping over the Dragon Gate” and “Eight Immortals Celebrating Longevity.” These images, usually composed in horizontally expanded

layouts, convey a sense of welcoming ceremony and auspicious blessings, visually encoding social values (Zhang, 2023)[5].

(3) Side Corridors and Wing Rooms: Semantic Extension in Intimate Spaces

Secondary components such as side corridors and wing rooms are typically decorated with folk images like “Phoenix Pair in Harmony” or “Longevity with Pine and Cranes.” These are placed flexibly and convey intimate, friendly meanings, creating a relaxed and warm visual atmosphere and serving an emotional modulation function (Liang, 2021)[9].

4.3. Compositional Patterns in the Nesting Mechanism

Images embedded in components often form serial combinations, revealing the following patterns:

Thematic Concentration: Repetition of similar symbols, e.g., the juxtaposition of “Fu, Lu, Shou” to intensify the theme.

Narrative Accumulation: Compositional layering that shows progression, e.g., “Carp Leaping the Dragon Gate” with water waves and dragon shadows.

Symbolic Fusion: Combination of diverse images, e.g., “Child + Pomegranate” to signify fertility and prosperity (Huang, 2023)[8].

These combinations increase semantic density and enhance the organizational strength of component visuals.

4.4. Cultural Connotations and Systemic Value of the Nesting Mechanism

The nesting mechanism elevates architectural components from structural elements to containers of cultural meaning. For instance, “Rising to Eminence” not only reflects aspirations for success in the imperial examination but also symbolizes clan honor; “Carp Leaping over the Dragon Gate” conveys hopes for upward social mobility (Liu, 2020)[6].

Guangfu plaster sculpture establishes a unique structure that couples visuals, components, and cultural meaning, endowing architectural ornamentation with clear cultural legibility—an essential trait distinguishing it from other regional image traditions.

5. Cultural Construction Functions in Semantic Coupling

5.1. Symbolic Construction in Ritual Spaces

The spatial organization of traditional Guangfu architecture follows a clear hierarchy of ritual order, wherein plaster sculpture imagery contributes visually to this spatial structure through its attachment to architectural components. Main hall ridges are often adorned with motifs such as “Fu, Lu, Shou” or “Rising to Eminence,” reinforcing notions of ancestral honor and familial authority, thus forming the symbolic visual center of power (Peng, 2015)[1]. Transitional components like door plaques and gable ornaments commonly feature themes such as “Qilin Sending Offspring” or “Eight Immortals Celebrating Longevity,” which not only express auspicious meanings but also serve as ritual entry nodes (Zhang, 2023)[5].

Through the nested relationship of component–image–semantics, these arrangements construct a visualized ritual domain, making plaster sculpture a medium where behavioral norms, patriarchal order, and spatial functions intersect (Fu, 2020)[3].

5.2. Visual Mechanisms of Social Values

The Guangfu plaster sculpture system embodies rich ethical and aspirational content, forming a visual expression of societal values. Images depicting loyal ministers, filial sons, and Confucian virtues such as “Ren, Yi, Li, Zhi” frequently appear on plaster components in side halls or courtyards, conveying moral teachings in an accessible visual form (Xu, 2020; Liu & He, 2020)[11][2].

Themes related to meritocracy, marriage, and fertility—such as “Step-by-Step Promotion” and “Five Sons Achieving Scholarly Honors”—also frequently appear, guiding viewers toward desirable social ideals and constructing an experiential narrative of daily life and cultural aspirations.

5.3. Visual Encoding of Regional Identity and Cultural Belonging

Guangfu plaster sculpture imagery exhibits distinctive Lingnan regional characteristics. Botanical motifs such as kapok, lychee, and longan, and animal symbols such as lions, qilin, and carp, reflect a fusion of local ecology and folk culture (Zhang, 2023)[5]. These recurring elements form a network of collective visual memory that strengthens regional identity.

In addition, religious and folkloric imagery—such as representations of Mazu, Guanyin, opera characters, and legendary narratives—are widely distributed throughout decorative systems. This forms a compound image system that blends religion and folklore, reinforcing cultural boundaries and communal identification in the Guangfu region (Huang, 2023)[8].

5.4. Repetitive Imagery and the Mechanism of Collective Memory

Guangfu plaster sculpture displays high stability in both thematic content and compositional form. Frequently repeated motifs such as “Fu, Lu, Shou,” “Hundred Sons,” and “Longevity with Pine and Cranes” appear across regions like Guangzhou and Foshan, forming a regionally shared visual vocabulary. Such repetition reinforces cross-spatial cultural identity and constructs an intergenerational “visual memory mechanism” (Chen, 2022)[7].

Through the component-nesting system, these images become activatable cultural symbols, transforming plaster decoration into memory-bearing visual carriers that extend beyond mere architectural ornamentation. This provides a stable platform for the dissemination and reconstruction of local culture (Peng, 2023)[1].

6. Conclusion

This study adopts the tripartite analytical structure of “Image–Component–Semantics” to focus on the visual nesting logic and cultural construction mechanism of Guangfu plaster sculpture in traditional architecture. It systematically analyzes component configuration, spatial pathways, semantic relationships, and cultural expression, and draws the following key conclusions:

First, Guangfu plaster sculpture demonstrates a three-level nested mechanism of “Component–Image–Semantics.” Images are configured strictly based on the functional logic of components. The spatial position of each component determines the semantic orientation of its image theme—from authority and ritual to familial intimacy—thus forming a decorative system with distinct cultural functions. This

finding refutes the traditional notion of “component neutrality” (Fu, 2020)[3].

Second, the compositional logic of imagery is closely coordinated with the spatial viewing pathway. The rhythm of “looking up – entering – traversing” is supported by compositional modes such as horizontal unfolding and symmetrical focusing, establishing a narrative path that transitions from visual attraction to emotional resonance. This reflects the synchronous operation of spatial visual rhythm and cultural semantics (Zhang, 2023; Chen, 2022)[5][7].

Third, plaster sculpture imagery fulfills multiple functions in spatial culture. From ritual codes and ethical transmission to identity formation and collective memory, the images embed social values of Guangfu society in the form of visual symbols. This forms a three-dimensional dissemination mechanism of “Visual–Cultural–Social,” enhancing the stability and recognizability of regional culture (Liu & He, 2020)[2].

Finally, the proposed tripartite nesting model offers theoretical support for spatial-semantic research in decorative arts, while methodologically expanding the analytical path from component function to cultural encoding. Future research may integrate digital modeling and data visualization to explore the cross-media translation and contemporary expression mechanisms of plaster imagery, thereby activating and extending its visual system in modern applications.

References

- [1] Peng, Yu. (2015). Guangfu huishu yishu de shijue tezhen yu wenhua yiyi [Visual characteristics and cultural connotations of Guangfu plaster sculpture art]. Zhuangshi, (1), 100–103.
- [2] Liu, Bing, & He, Yang. (2020). Guangfu huishu yishu de fazhan bianqian yu dangdai biaoda tanxi [Exploration on the development and contemporary expression of Guangfu plaster sculpture art]. Guangdong Jishu Shifan Daxue Xuebao, 41(1), 109–113.
- [3] Fu, Rong. (2020). Jianzhu huishu yu diyi yu rentong jiangou: Yi Guangzhou citang weili [Architectural plaster sculpture and regional identity construction: A case study of ancestral halls in Guangzhou]. Zhuangshi, (7), 92–95.
- [4] Shen, Li. (2022). Jiyu CiteSpace de chuantong jianzhu huidiao huishu yanjiu xianzhuang fenxi [Research status analysis of traditional architectural stucco relief based on CiteSpace]. Jianzhuxuebao, (6), 103–110.
- [5] Zhang, Lu. (2023). Cong kongjian fenbu kan Guangfu huishu tuxiang de xushi gongneng chonggou [Reconstructing narrative function of Guangfu plaster images from spatial distribution]. Zhongguo Minju Yanjiu, (1), 45–50.
- [6] Liu, Kang. (2020). Jianzhu tuxiang zhong de shijue yindao jizhi yu yiyi jiegou [Visual guidance mechanisms and memory structures in architectural imagery]. Yishu Baijia, (4), 97–99.
- [7] Chen, Junwei. (2022). Lingnan chuantong diaosu yishu gonggongxing yanjiu [Research on the public nature of traditional Lingnan sculpture art]. Lingnan Meishu Pinglun, (3), 97–100.
- [8] Huang, Enwu. (2023). Tuxiang yuyan yu minsu yiyi de fushi guanxi—Guangfu huishu tuxiang de wenhua chuanbo jizhi [Relationship between visual language and folk meaning—The cultural communication mechanism of Guangfu plaster sculpture images]. Renwen Dili, (4), 66–72.
- [9] Liang, Xueying. (2021). Guangfu huishu zhong shenghuo yixiang tuxiang de meixue tezhen [Aesthetic characteristics of daily-life imagery in Guangfu plaster sculpture]. Chengshi Jianshe, (9), 116–120.

- [10] Liu, Shuqin. (2022). Tuxiang shijue yuyi zai Guangfu huishu yishu zhong de yingyong yanjiu [Application of visual semantics in Guangfu plaster sculpture art]. *Yishu Baijia*, (2), 114–116.
- [11] Xu, Chaoyang. (2020). Guangfu huishu zhuangshi zhong de wenzi tu'an yishu yanjiu [Study of textual motifs in Guangfu plaster decoration]. *Lingnan Gongyi Meishu*, (4), 67–70.
- [12] Zhou, Bihui, & Luo, Xiaohong. (2022). Cong xiangzheng mutumoti jiexidu Guangfu huishu tuxiang jiegou [Analyzing image structures of Guangfu plaster sculpture through symbolic motifs]. *Diaosu*, (3), 75–78.
- [13] Zhu, Hua. (2020). Jianzhu yujing zhong de huishu tuxiang xingcheng luoji tantao [Exploration of the formation logic of plaster images in architectural context]. *Zhuangshi*, (9), 102–105.