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Architectural Acupuncture in Rural Revitalization: Practice and Value Research—A Case Study of Rural Design in Songyang, Zhejiang

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Abstract: Amid criticism of “large-scale demolition” and “over-commercialization” in rural revitalization, architect Xu Tiantian’s “Architectural Acupuncture” in Songyang County offers a “minimal intervention, precise activation” alternative. Through case analysis, this study examines the strategy across spatial, economic, social, and cultural dimensions. Architectural Acupuncture precisely implants small public buildings to restore rural cultural identity, forming a county-wide cultural-economic system. Its core mechanism combines precise diagnosis, design translation, and chain effects. Its value lies in reviving public space, raising industrial premiums, rebuilding community ties, and restoring cultural confidence. The Songyang experience presents a replicable but non-standardized paradigm—a “third possibility” for contemporary rural construction.

Keywords: Architectural Acupuncture, Rural Revitalization, Songyang, Locality, Public Space

1. Introduction

Since the 19th National Congress of the Communist Party of China proposed the rural revitalization strategy, diverse rural construction practices have been carried out nationwide. However, alongside significant achievements, two primary dilemmas have gradually emerged: first, the development model of “large-scale demolition and construction” simplistically transplants urban spatial logic to the countryside, leading to “a thousand villages looking the same” and the erosion of vernacular memory; second, “excessive commercialization” in tourism development turns villages into vessels for consumerist spectacles, marginalizing the subjectivity of villagers. Finding a balance between protection and development has become a core question urgently needing an answer in rural construction.

In recent years, “artistic intervention in the countryside” and “design going to the countryside” have become important pathways for rural regeneration. Artists, architects, and curators have entered villages, attempting to drive rural revitalization through aesthetic enlightenment and cultural activation. However, this model also faces predicaments: How can artistic intervention avoid becoming a mere “vase-like” embellishment? How can design works truly serve villagers rather than merely becoming aesthetic consumer goods for the urban middle class? These questions point to a deeper inquiry: How can architecture and design become an effective pathway for rural revitalization?

It is against this backdrop that the “Architectural Acupuncture” practice in Songyang County, Zhejiang Province, has attracted widespread attention. Since 2014, architect Xu Tiantian and her firm DnA Design and Architecture have undertaken a series of rural architectural designs in Songyang. Represented by projects such as the Brown Sugar Factory, Shimenwei Covered Bridge, Contract Museum, and Wang Jing Memorial Hall, they have explored a new path for rural construction based on “minimal intervention and precise activation” (Xu, 2021). This strategy has been summarized as “Architectural Acupuncture”—borrowing the metaphor from traditional Chinese medicine acupuncture, it advocates for small-scale, precise architectural interventions that, like stimulating acupoints, activate the endogenous vitality and overall function of the village.

The core research question of this paper is: How does architectural acupuncture become an effective path for rural revitalization? What are its core mechanisms and practical values?

This study attempts to provide a “spatial-social-economic” integrated analytical framework for rural revitalization research. Existing studies often approach the topic from a single disciplinary perspective—architecture focusing on spatial form, sociology

on community relations, economics on industrial benefits—whereas the uniqueness of architectural acupuncture lies precisely in its multi-dimensional synergistic effects. By establishing an integrated analytical framework, this study helps deepen the understanding of the intrinsic mechanisms of rural construction.

As a “National Demonstration County for the Preservation and Development of Traditional Chinese Villages,” Songyang’s experience holds significant demonstrative value. Systematically summarizing the practical experience of Songyang’s architectural acupuncture, analyzing its success factors and potential limitations, can provide a reference for rural revitalization in other regions, helping to avoid simplistic transplantation that leads to “acclimatization failure.”

2. Literature Review and Theoretical Framework

2.1. Theoretical and Practical Context of Rural Construction

2.1.1. Historical Context: From Mass Education to Rural Construction

China’s rural construction movement can be traced back to the early 20th century. Yan Yangchu’s “Mass Education” advocated for curing the “four sicknesses” of the countryside—ignorance, poverty, weakness, and selfishness—through education in literature/art, livelihood, health, and citizenship (Hayford, 1990). Liang Shuming’s “Theory of Rural Construction” emphasized rebuilding rural social organization based on Confucian culture (Liang, 2015). These early explorations laid the humanistic foundation for rural construction.

Contemporary rural construction presents diverse pathways: government-led “New Countryside Construction” focuses on infrastructure improvement; market-driven “rural tourism development” emphasizes economic benefits; and socially-driven “artistic rural construction” attempts to activate the countryside through aesthetic enlightenment.

2.1.2. Three Models of Artistic Intervention in the Countryside

Reviewing existing practices, artistic intervention in the countryside can be summarized into three models:

1. Artistic Rural Construction Model: Centered on artist residencies and art festivals, activating rural culture through artistic creation. Typical examples include the Echigo-Tsumari Art Triennale in Japan and the Wuzhen Theatre Festival in China. Its advantage lies in strong communication effects; its challenge lies in the distance between art and daily life.

2. Design Going to the Countryside Model: Led by architects and designers, reshaping the rural landscape through spatial renovation. Typical examples include the Bishan Project in Anhui and the Songyang practice in Zhejiang. Its advantage is direct spatial intervention; its challenge lies in the cognitive gap between designers and villagers.

3. Cultural Creative Empowerment Model: Centered on cultural creative industries, driving the rural economy through IP creation and product development. Typical examples include Taomi Eco-Village in Taiwan and Kumamoto Prefecture in Japan. Taking Kumamoto as an example, Hashimoto (2024) found that its small-scale ceramic production areas, such as Amakusa and Shodaiyaki, empower individual artisans through diverse techniques and independent sales, rather than a unified brand (IP). Its advantage lies in extending the industrial chain; its challenge lies in the tension between commercialization and authenticity.

2.2. Definition of Core Concepts

2.2.1. Architectural Acupuncture

“Architectural Acupuncture” is a rural revitalization strategy proposed by architect Xu Tiantian (DnA Design and Architecture). According to Xu Tiantian’s elaboration, the core implications of this concept include: taking villages and villagers as the main subjects; based on each village’s specific characteristics; combining local materials and construction techniques; implanting small-scale public functions into different villages and rural areas; reconnecting the village’s intrinsic cultural context; re-presenting the village’s cultural history and identity; and ultimately forming a socio-economic cultural circulatory system at the county level, thereby driving a shift in rural mindsets and fostering self-sustaining health.

Specifically, architectural acupuncture encompasses three layers of meaning: first, precise diagnosis—conducting in-depth research into each village’s unique historical context, natural resources, and characteristic industries to identify the most representative cultural or industrial “acupoint”; second, minimal intervention—using small-scale public buildings such as libraries, workshops, and museums as the “needle,” implanted at key locations to avoid large-scale demolition and construction; third, holistic activation—a single project activates a point, and numerous projects connect into a network, jointly activating the “meridians” of the entire region.

2.2.2 Locality

“Locality” is a key concept for understanding architectural acupuncture (Zhang & Lei, 2021). Distinct from standardized, universal architectural design, locality emphasizes the deep connection between a building and its specific site—encompassing multiple dimensions including physical geography, historical context, material craftsmanship, and community life. In the Songyang

practice, locality is manifested in the contemporary translation of vernacular materials (such as stone, rammed earth, grey tiles), the modern reconstruction of traditional spaces (like covered bridges, ancestral halls, workshops), and the respect for and continuation of villagers' everyday lifestyles.

2.3. Theoretical Origins of Architectural Acupuncture

2.3.1. The Metaphor of Acupuncture in Traditional Chinese Medicine

The term “acupuncture” is borrowed from Traditional Chinese Medicine (TCM). Based on meridian theory, TCM acupuncture views the human body as an organic whole, where stimulating specific acupoints can regulate qi and blood, clear meridians, and treat diseases. This metaphor is transplanted into the field of architecture, emphasizing that the village, like an organism, requires “pulse diagnosis and targeted inquiry” and “applying needles to the specific site,” rather than holistic transformation akin to “major surgery.”

2.3.2. From Urban Acupuncture to Rural Acupuncture

The application of the “acupuncture” concept in architecture did not begin in the countryside. In the late 20th century, urban scholars proposed the “Urban Acupuncture” strategy, advocating for activating declining urban districts through small-scale, precise interventions. Rural Acupuncture can be seen as an extension of this concept into a rural context, but significant differences exist: Urban Acupuncture focuses on physical environmental renewal, whereas Rural Acupuncture places greater emphasis on the composite goals of industrial activation, community reconstruction, and cultural heritage.

2.3.3. Critical Regionalism

The theoretical underpinning of architectural acupuncture can be traced back to Kenneth Frampton's “Critical Regionalism.” In his seminal essay *Towards a Critical Regionalism: Six Points for an Architecture of Resistance* (Frampton, 1996), Frampton argues that architecture should resist the homogenizing forces of universal civilization while avoiding the pitfalls of sentimental historicism. Instead, it should mediate between universal technology and local culture, rooting itself in the specific natural conditions and cultural traditions of a region.

Critical Regionalism does not merely imitate traditional forms but adapts them to contemporary life through critical transformation — what Frampton calls a “dialectical expression” that self-consciously fuses local values with paradigms drawn from alien sources (Frampton, 1996, p. 472). The contemporary translation of vernacular materials (stone, rammed earth, grey tiles) in the Songyang practice is a quintessential embodiment of this approach. Projects such as the Contract Museum and the Wang Jing Memorial Hall demonstrate how local materials can be reimaged through modern spatial language, aligning with Frampton's vision of a regionally rooted yet critically progressive architecture.

3. Research Methodology

3.1. Research Design

This study adopts a qualitative, multi-case study design (Yin, 2018) to investigate the mechanisms and values of Architectural Acupuncture in Songyang County. A case study approach is appropriate here because the research asks “how” and “why” questions, does not require control over behavioral events, and focuses on contemporary real-world interventions.

3.2. Research Methods

This study employs two complementary research methods: literature analysis and case study research.

(1) Literature analysis: Systematically review academic literature and policy documents related to Architectural Acupuncture and rural construction, with a particular focus on Xu Tiantian's core article “Songyang Story: Architectural Acupuncture” published in *Architectural Journal*, to extract the theoretical foundations, design principles, and value propositions of Architectural Acupuncture.

(2) Case study research: Based on the case selection criteria outlined in Section 3.3, conduct in-depth analysis of four typical Architectural Acupuncture projects in Songyang to explore their design strategies, implementation processes, and practical outcomes.

3.3. Case Selection Criteria

The four selected cases—Brown Sugar Factory, Shimenwei Covered Bridge, Contract Museum, and Wang Jing Memorial Hall—are not exhaustive of all Songyang projects but are chosen based on three criteria:

(1) Typological representation: covering four typical acupuncture types—industrial activation, connection node, cultural memory, and spiritual memorial.

(2) Functional diversity: including four functions—production, transportation, exhibition, and commemoration.

(3) Data accessibility: with complete documentation in published academic papers, government reports, and design monographs such as *Architectural Journal* and *Time + Architecture*.

The main materials used include academic articles, public government reports, architect interviews, design statements, and on-site observation notes.

3.4. Analytical Framework: The Four-Dimensional Value Model

The analytical framework was developed deductively from Xu Tiantian's theoretical writings and inductively from preliminary fieldwork observations. It comprises four dimensions:

(1) Spatial value—assessed through publicness, vernacular material translation, and lighting design locality.

(2) Economic value—measured by agricultural product price changes, tourism stimulation, and employment creation.

(3) Social value—evaluated through villager subjectivity, identity strengthening, and youth return.

(4) Cultural value—examined via performative production of traditional skills, cultural confidence, and cultural lineage reconnection.

3.5. Data Collection and Sources

Data were collected from multiple sources to enable triangulation:

Documentary sources – project design statements (Xu, 2021; Zhang, 2018), government reports (Pan, 2019), and peer-reviewed journal articles (Zhang & Lei, 2021).

Archival records – brown sugar price data from Xing Village cooperative records; tourist flow data were obtained from the 2015 National Economic and Social Development Statistical Bulletin of Lijiang City, published by the Lijiang Municipal Statistics Bureau. According to the bulletin, Lijiang City received a total of 30,559,800 domestic and international tourists in 2015, representing a year-on-year increase of 14.72%. Total tourism revenue reached 48.348 billion CNY, up 27.64% compared to the previous year (Lijiang Municipal Statistics Bureau, 2016).

Secondary interviews – drawing on published interview transcripts with villagers, architects, and government officials.

3.6. Data Analysis Strategy

Within-case analysis was first conducted for each project, coding textual and observational data according to the four-dimensional framework. Cross-case synthesis then identified patterns, mechanisms, and contextual conditions across the four projects. Pattern-matching logic (Yin, 2018) was used to compare empirical findings with theoretical predictions derived from Critical Regionalism and Urban Acupuncture literature.

4. The Practical Landscape of Songyang's Architectural Acupuncture

4.1. Overview of Songyang: Why Songyang?

Songyang County is located in the southwestern part of Zhejiang Province, under the jurisdiction of Lishui City. Established in the fourth year of the Jian'an era of the Eastern Han Dynasty (199 AD), it is the earliest established county in Lishui. Within its borders, over a hundred well-preserved traditional villages remain, earning it the reputation as the "Last Hidden Paradise of Jiangnan."

Since 2013, Songyang County has taken the preservation and development of traditional villages as a starting point to explore a "culture-led rural revitalization" practice. In 2015, Songyang was awarded the title "National Demonstration County for the Preservation and Development of Traditional Chinese Villages" by the Ministry of Housing and Urban-Rural Development. It was against this backdrop that, in 2014, the Songyang County government initiated a collaboration with Xu Tiantian, founder of DnA Design and Architecture, to innovatively implement the "Architectural Acupuncture" strategy in the countryside. Following a philosophy of "TCM-style regulation, acupuncture activation," they used rural cultural architecture as an entry point for rural revitalization.

4.2. In-depth Analysis of Typical Cases

4.2.1. Case One: Brown Sugar Factory (Industry Activation Type)

Background: The Brown Sugar Factory is located in Xing Village, Zhangxi Township, Songyang County, where the community has a long-standing tradition of ancient brown sugar production. However, traditional family workshops suffered from rudimentary conditions and struggled to meet hygiene standards, keeping brown sugar prices persistently low.

Design Strategy: The Brown Sugar Factory is sited between the village and the fields, with tea plantations and mountains as its backdrop. The building integrates production and exhibition functions—for villagers, it serves as a brown sugar processing

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workshop, carrying forward the village's intrinsic cultural traditions; for tourists, it acts as a museum displaying the ancient sugar-making craft. The design positions the sugar-making space as the core, with narrow-angle spotlights installed on the upper trusses to vertically illuminate the sugar cauldrons, transforming the sugar-making process itself into a "live performance."

Practical Effectiveness: After the completion of the Brown Sugar Factory, the local brown sugar price rose from 16 CNY/kg to 50 CNY/kg, increasing villagers' annual income by over 2 million CNY. The factory not only improved production conditions but also transformed traditional handicrafts into a displayable and experiential cultural resource, stimulating surrounding tourism development.

4.2.2. Case Two: Shimenwei Covered Bridge (Connection Node Type)

Background: The Shimen Bridge, built in 1974, was an unreinforced, unribbed concrete double-curved arch bridge connecting two villages. Adjacent to the bridge lies the Niuyang Weir, an ancient thousand-year-old weir. With the construction of a new bridge, the old bridge gradually fell into disuse.

Design Strategy: In conjunction with the riverside greenway tour route, the old bridge was renovated into a pedestrian covered bridge, offering elevated viewpoints over the Songyin Creek and becoming a shared public space at the entrances of the two villages. The new wooden assembly structure provides spaces for passage, sightseeing, rest, and markets for both tourists and villagers. The lighting design distinguishes between "weekday mode" and "weekend market mode," creating respectively a tranquil passage atmosphere and a lively market scene.

Practical Effectiveness: The Shimenwei Covered Bridge re-established the spatial connection between the two villages, becoming a public space for villagers' daily social interactions and a photo spot for tourists, achieving the adaptive reuse of abandoned infrastructure.

4.2.3. Case Three: Contract Museum (Cultural Memory Type)

Background: Shicang Village, located in Dadongba Town, Songyang County, preserves a rich Hakka contract culture. These contract documents record centuries of economic activities including land sales, tenancy, and lending, serving as precious historical materials for studying Ming and Qing socio-economic history.

Design Strategy: The Contract Museum is built along the hillside, situated at the intersection of the village and terraced fields. The walls are constructed using local stone masonry techniques, appearing from a distance like a retaining wall of the riverbank or terraces, blending seamlessly into the environment. The building forms semi-enclosed courtyards on the north and south sides. On the north side, connected to the village, a small plaza enclosed by stone walls provides a flexible outdoor space for villagers' use.

Practical Effectiveness: The Contract Museum has not only become a space for collecting and displaying contract documents but also a place where outsiders and villagers gather and share. The outdoor northern plaza has become a fixed venue for local children to perform the folk "Mountain-Edge Mountain Lantern Horse" dance. The museum has strengthened villagers' identification with local culture and attracted academic research engagement.

4.2.4. Case Four: Wang Jing Memorial Hall (Cultural Memorial Type)

Background: Wang Jing was a notable Songyang-born official of the Ming Dynasty, who served as Minister of Rites. His hometown retains the Wang Ancestral Hall, and the empty plot opposite the hall became the site for the memorial hall.

Design Strategy: The memorial hall unfolds as a single-story volume along the rectangular site. The rammed earth walls establish a dialogue with surrounding buildings such as the old ancestral hall. The roof features an open platform, providing expansive views and an outdoor activity space. Skylights provide illumination for interior reliefs while functioning as installation art on the exterior. The lighting design draws on the imagery of a "fire basin," offering low-light illumination for village activities and creating an atmosphere of "spiritual home and collective warmth."

Practical Effectiveness: The Wang Jing Memorial Hall serves both as a cultural exhibition space and as a venue for the village's public cultural activities and leisure. It integrates historical memory with contemporary life, reshaping the village's cultural core and spiritual symbol.

4.3. Chapter Summary

The above four cases demonstrate the diverse typologies of architectural acupuncture: the Brown Sugar Factory focuses on industrial activation, the Shimenwei Covered Bridge on connection node revitalization, the Contract Museum on cultural memory preservation, and the Wang Jing Memorial Hall on cultural spiritual reshaping. Despite their varied functions, they collectively embody the core logic of architectural acupuncture: through the precise insertion of small-scale public buildings, specific "acupoints" in the village are activated, thereby driving holistic development.

Table 1 Comparison of four architectural acupuncture cases in Songyang

Case	Type	Core Strategy	Primary Value	Key Design Feature
Brown Sugar Factory	Industrial activation	Integration of production and display	Economic / Cultural	Spotlight on sugar cauldrons as “live performance”
Shimenwei Covered Bridge	Connection node	Adaptive reuse of abandoned bridge	Spatial / Social	Dual lighting modes (weekday vs. market)
Contract Museum	Cultural memory	Stone volume embedding into landscape	Cultural / Social	Semi-enclosed courtyard as village plaza
Wang Jing Memorial Hall	Spiritual memorial	Rammed earth dialogue with ancestral hall	Cultural / Spiritual	“Fire basin” lighting evoking collective warmth

5. Value Analysis of Architectural Acupuncture Practice

5.1. Spatial Value: From Architectural Object to Place-Making

5.1.1. The Return of Publicness

Traditional rural social life unfolded around spaces such as ancestral halls, opera stages, water inlets, and covered bridges. With modernization, these traditional public spaces gradually declined. Architectural acupuncture revitalizes rural public spaces by inserting new public buildings. The Shimenwei Covered Bridge has become a venue for villager interaction, the outdoor plaza of the Contract Museum a stage for children’s performances, and the rooftop platform of the Wang Jing Memorial Hall a vantage point for overlooking the village—these spaces have once again become an organic part of villagers’ everyday life.

5.1.2. Contemporary Translation of Vernacular Materials

Architectural acupuncture does not simply imitate traditional forms but engages in a contemporary translation of vernacular materials. The steel structure and glass curtain walls of the Brown Sugar Factory enter into dialogue with traditional brown sugar production; the rubble stone masonry of the Contract Museum both continues the local stonework tradition and presents a modern sensibility through minimalist geometric forms; the rammed earth walls of the Wang Jing Memorial Hall both echo the old ancestral hall and highlight contemporaneity through a simple volume. This exploration of “old materials, new forms” provides a useful reference for the contemporary transformation of vernacular architecture.

5.1.3. Locality Considerations in Lighting Design

A unique aspect of the Songyang practice is its emphasis on lighting design. Lighting designer Zhang Xin proposed the concept of “activating the rural night,” advocating for taking “darkness” as the starting point and using low-light creation to preserve the sensory memory of the countryside at night (Zhang, 2018). The production lighting of the Brown Sugar Factory, the passage lighting of the Shimenwei Covered Bridge, the torch imagery of the Contract Museum, and the fire basin imagery of the Wang Jing Memorial Hall all embody design principles of frugal light use and respect for the dark night environment.

5.2. Economic Value: From Spatial Production to Industrial Activation

5.2.1. Agricultural Product Premium

The most direct economic benefit of architectural acupuncture is reflected in agricultural product premiums. According to a 2020 report by Hangzhou Net, in the first year of operation of the Brown Sugar Factory, the local brown sugar price increased from 16 CNY/kg to 50 CNY/kg, a rise of over 200% (Zhang, 2020). This resulted not only from improved production conditions but also from cultural empowerment—when traditional handicrafts are endowed with displayability and experientiality, their products gain cultural added value.

5.2.2. Tourism Stimulation

The various projects of architectural acupuncture are like scattered pearls, strung together through tourism routes to form county-wide tourism appeal. Tourists come for the sugar-making performance at the Brown Sugar Factory, for the historical stories at the Contract Museum, and for the landscape views at the Shimenwei Covered Bridge. Although modest in scale, these projects become tourist destinations due to their uniqueness, driving the development of related industries such as surrounding homestay inns, dining, and agricultural product sales.

5.2.3. Employment Opportunity Creation

The operation of architectural acupuncture projects creates local employment opportunities. The Brown Sugar Factory requires significant labor during the sugar-making season; the maintenance and management of each project require dedicated personnel; tourism development has spawned new professions such as homestay managers, tour guides, and craft artisans. These employment opportunities enable villagers to earn an income locally, reducing the impetus for out-migration for work.

5.3. *Social Value: From Spatial Intervention to Community Reconstruction*

5.3.1. Villager Subjectivity

A key principle of architectural acupuncture is “taking villages and villagers as the main subjects.” During the design process, architects conducted in-depth research into villagers’ actual needs (Zhang & Lei, 2021); after completion, the right to use the space belongs to the villagers. The Brown Sugar Factory is first a production space for villagers, and second a visiting space for tourists; the outdoor plaza of the Contract Museum serves first for villagers’ daily social interaction, and second as an extension of cultural display.

5.3.2. Strengthening of Identity

Architectural acupuncture strengthens villagers’ sense of identity and pride by activating local cultural resources. The Contract Museum makes villagers realize that the contract documents left by their ancestors are a precious cultural heritage; the Wang Jing Memorial Hall makes villagers aware that a Ming Dynasty Minister of Rites emerged from their hometown. This awakening of cultural consciousness is the deepest driving force of rural revitalization.

5.3.3. Return of Young People

With industrial activation and tourism development, young people who had migrated for work have begun to return to their home villages. They find employment in homestays, engage in agricultural product e-commerce, or become inheritors of handicraft traditions. Pan Liping, a member of the Songyang County Party Committee Standing Committee, has pointed out that it is precisely these multi-functional rural cultural buildings that have driven the adjustment of the village’s economic development model and the transformation of production and lifestyle.

5.4. *Cultural Value: From Material Heritage to Living Heritage*

5.4.1. “Performative Production” of Traditional Skills

The Brown Sugar Factory transforms traditional brown sugar production into a displayable “live performance.” This “performative production” both maintains the living transmission of the skill and endows it with a cultural display function. The unity of production and display means traditional skills are no longer static exhibits in a museum but living practices integrated into contemporary life.

5.4.2. Return of Cultural Confidence

A significant outcome of the Songyang practice is the return of villagers’ cultural confidence. When villagers see their traditional skills meticulously designed and professionally presented, and see outsiders casting appreciative glances at these local cultures, they gain a renewed understanding of their own culture’s value. The establishment of this cultural confidence is an important foundation for sustainable rural development.

5.4.3. Reconnecting Rural Cultural Lineage

Xu Tiantian summarizes the goal of architectural acupuncture as “reconnecting the village’s intrinsic cultural lineage, and representing the village’s cultural history and identity.” This reconnection of cultural lineage is not a simple return to the past, but a creative transformation of tradition in a contemporary context. The Contract Museum continues Shicang’s contract culture, the Wang Jing Memorial Hall continues the memory of a local notable figure, and the Brown Sugar Factory continues the sugar-making tradition—together, they weave the cultural map of Songyang’s villages.

6. Discussion and Extensions

6.1. *Refining the Mechanism of Architectural Acupuncture*

Synthesizing the above analysis, the core mechanism of architectural acupuncture can be summarized into the following three stages:

First, Precise Diagnosis: Discovering the Village’s “Acupoint.” The first step of architectural acupuncture is in-depth research to discover each village’s unique “acupoint”—this may be a characteristic industry (such as brown sugar), a historical figure (such as Wang Jing), a cultural tradition (such as contracts), a natural landscape (such as Shimenwei), or a connection node (such as the covered bridge). This “acupoint” represents both the village’s uniqueness and the leverage point for activation.

Second, Design Translation: Translating Functional Needs into Spatial Language. After identifying the “acupoint,” it must be translated into a concrete spatial design. The Brown Sugar Factory translated the sugar-making function into a space integrating production and display; the Contract Museum translated contract culture into stone volumes and courtyard spaces; the Shimenwei Covered Bridge translated the function of passage into a place for social interaction and landscape viewing. The key to this translation lies in finding the appropriate juncture between functional needs and spatial language.

Third, Chain Effect: From Individual Projects to Regional Linkages. A single architectural acupuncture project activates one “acupoint,” while numerous projects create a network effect. Tourists extend their stay due to multiple destinations, villagers enrich their daily lives through multiple public spaces, and industries form chains by connecting multiple nodes. The formation of a cultural-economic social circulatory system at the county level in Songyang is precisely the manifestation of this chain effect.

6.2. Interpretation of Findings

The four case studies demonstrate that Architectural Acupuncture achieves multi-dimensional activation through minimal spatial intervention. The Brown Sugar Factory case shows how production space can be reimagined as cultural performance, generating economic premium without altering the core craft. This finding aligns with what Pine and Gilmore (1999) term the “experience economy”—transforming traditional production into a consumable experience creates added value while preserving authenticity. The Shimenwei Covered Bridge exemplifies the adaptive reuse of obsolete infrastructure, transforming a functional structure into a social hub. This supports Jacobs’ (1961) observation that successful urban places require “eyes on the street,” extended here to the rural context. The Contract Museum illustrates how architectural form can materialize intangible cultural memory, while the Wang Jing Memorial Hall demonstrates the integration of historical commemoration with contemporary community life.

Across all cases, a consistent pattern emerges: successful architectural acupuncture requires the alignment of three elements—a clearly diagnosed “acupoint,” a design that respects and amplifies local characteristics, and an operational model that serves villagers first and tourists second. Where these elements align, spatial intervention generates cascading economic, social, and cultural benefits. This pattern resonates with Ostrom’s (1990) design principles for common-pool resource governance, particularly the principle of “congruence between appropriation and provision rules and local conditions.”

Importantly, the findings suggest that architectural acupuncture operates differently from conventional rural development models. Unlike top-down infrastructure projects that impose external logics, architectural acupuncture enables endogenous development by amplifying existing local assets. Unlike purely market-driven tourism development, it prioritizes villager needs over tourist consumption. This “third way” finding contributes to ongoing debates in rural studies about balancing preservation and development (Woods, 2011; Cloke, 2006).

6.3. Comparison with Related Models

Comparison with the Wuzhen Model: The Wuzhen model is characterized by large capital investment and holistic development, creating a tourist destination through massive investment and standardized operation. In contrast, architectural acupuncture is characterized by micro-interventions and precise activation, with small investment and low risk, though it struggles to generate large-scale economic benefits in the short term. Each has its applicable contexts and should not be simplistically compared in terms of superiority.

Comparison with Japan’s Echigo-Tsumari Art Triennale: Echigo-Tsumari is characterized by international artist residencies and large-scale art festivals, emphasizing artistic intervention and activation. Architectural acupuncture, by contrast, uses architectural space as its medium, placing greater emphasis on integration with villagers’ everyday life. Both value the excavation of regional culture but differ in their implementation paths.

Comparison with Critical Regionalism Framework: Frampton’s Critical Regionalism emphasizes architectural resistance against universalizing forces through site-specific strategies (Frampton, 1996). The Songyang practice extends this framework by demonstrating that critical regionalist interventions can simultaneously serve as economic development tools—a dimension largely absent from Frampton’s original formulation. Architectural acupuncture thus contributes an “economic activation” layer to Critical Regionalism’s primarily cultural-aesthetic agenda.

6.4. Replicability and Limitations of Architectural Acupuncture

The replicability of architectural acupuncture lies at the methodological level, not at the level of specific forms. Its core methodology includes: taking villagers as the subject, basing action on research, using public buildings as the vehicle, adopting precise activation as the strategy, and targeting cultural-economic goals. This methodology can be applied in different regions and contexts with appropriate local adaptations.

At the same time, architectural acupuncture has certain limitations. First, dependence on the architect’s individual capability—the success of the Songyang practice is closely tied to the design capabilities of Xu Tiantian and her team; cultivating architect

teams with similar capabilities on a larger scale is a challenge for wider promotion. Second, the sustainability of capital investment—although architectural acupuncture projects are relatively small in scale, they still require financial input; establishing sustainable funding mechanisms (multi-source investment from government, market, and society) is key to project continuity. Third, the boundary of the government's role—the Songyang practice received strong support from the county government, with architects playing significant roles in site selection, project approval, promotion, and operation. This model is feasible in areas with strong grassroots government capacity but may face challenges in other regions.

The transferability of the Songyang experience depends on several contextual conditions. First, strong local government support—including policy commitment, inter-departmental coordination, and financial investment—is essential. Second, active community participation and a certain level of local social organization are necessary for projects to truly serve villagers' needs. Third, long-term maintenance mechanisms must be established to ensure the sustainability of completed projects. In the absence of these conditions, simply replicating the architectural form of Songyang may lead to “inaccurate acupoints and ineffective needling.”

6.5. Policy Recommendations

Based on the Songyang experience, this paper proposes the following recommendations for government and relevant planners:

First, shift from “large-scale demolition and construction” to “acupuncture-style activation.” The focus of rural construction should shift from large-scale infrastructure development to the creation of small-scale, precise public spaces, activating maximum capacity with limited investment.

Second, establish a collaborative mechanism of “architecture + industry + community.” Architectural acupuncture is not only spatial creation but also industrial activation and community reconstruction. Inter-departmental collaboration mechanisms should be established to integrate spatial construction with industrial cultivation and community development.

Third, emphasize in-depth pre-design research and long-term architect accompaniment. The effectiveness of architectural acupuncture is built upon deep research. Architects should be encouraged to invest sufficient time in fieldwork during the early stages of projects and to continuously monitor post-occupancy conditions after completion, forming a closed loop of “design → use → feedback → optimization.”

6.6. Research Limitations and Future Directions

This study has the following limitations: first, it primarily relies on documentary materials and secondary data, lacking a systematic survey of villagers' genuine attitudes; second, it focuses on analyzing practical achievements, with insufficient exploration of potential problems; third, it does not include follow-up research on the long-term operational effects of architectural acupuncture projects.

Future research could be deepened in the following directions: first, conduct oral history surveys among villagers to understand their real perceptions and evaluations of architectural acupuncture projects; second, carry out long-term follow-up assessments of completed projects to examine their sustainability; third, compare the Songyang experience with similar practices in other regions to distill a theoretical framework of greater generality.

7. Conclusion and Recommendations

This study systematically examined the Architectural Acupuncture practice in Songyang County, Zhejiang Province, through the analysis of four representative projects: the Brown Sugar Factory, Shimenwei Covered Bridge, Contract Museum, and Wang Jing Memorial Hall. The research aimed to understand how architectural acupuncture functions as an effective pathway for rural revitalization and to identify its core mechanisms and practical values.

Three main conclusions emerge. First, architectural acupuncture represents a “soft intervention” approach to rural revitalization, opposing large-scale demolition and construction while advocating for village-centered, research-based, precision activation through small-scale public buildings. Second, the core value of architectural acupuncture lies in its synergistic activation across spatial, economic, social, and cultural dimensions—rebuilding rural public spaces, raising agricultural product premiums, strengthening villagers' sense of identity, and reconnecting rural cultural lineage. Third, the Songyang experience offers a “third possibility” for contemporary rural construction, carving out a new path of precise intervention and synergistic activation that requires limited investment, carries low risk, and demonstrates strong sustainability.

In summary, Architectural Acupuncture provides a replicable yet non-standardizable paradigm for rural revitalization, with significant reference value for ordinary villages across China.

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