

A study of the pattern language of the exterior space design of village B&Bs in Luoyang, China

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Abstract: China's rural tourism, buoyed by the "Rural Revitalisation Strategy," breathes life into the enchanting world of B&Bs. Despite its grace, research on village B&Bs' exterior spaces remains scarce, plagued by coarseness and imitation. Our endeavor takes flight, focusing on Luoyang's charming village B&Bs in Henan Province. Through mixed research, we unearth hidden gems while acknowledging areas that need refinement. Our ultimate goal is to pave the path for unparalleled growth in China's village B&B industry. We aspire to create an exemplary model language for exterior space design, inspiring designers, architects, and researchers. Let this language be a guiding light as they navigate the captivating world of village B&Bs.

1. Background and Rationale of the Study

1.1. Background of the study

In January 2021, China's central government released "Opinions on Rural Revitalisation and Modernisation." The plan called for accelerating agriculture modernisation and countryside construction. Currently, research on village B&B exterior design is lacking, leading to rough construction without proper design guidance.

1.2. Theoretical basis

This paper draws inspiration from Christopher Alexander's "Architectural Pattern Language," a visionary thinker of the 20th century. According to Alexander, life is composed of various events, and these events bestow unique characteristics upon spaces they inhabit. These events may involve not only people but also plants, animals, or natural phenomena. Spaces serve as vessels for these events, with patterns emerging due to cultural and regional differences.

Repetition of events within the same space showcases how people interact within it, forming a temporal pattern intrinsically linked to the space. Each spatial pattern intertwines with its event pattern. For instance, a well-designed plaza fosters vibrant user activities. This cohesive fusion of

event and spatial patterns creates a fundamental unit [1].

In essence, this work unveils the profound interplay between life's events and architectural spaces, shaping a compelling narrative of how human experiences are harmoniously intertwined with their surroundings.

2. Research Methodology

The methodology of this study uses an integrated research strategy. Using the literature review method, the literature of related disciplines is analysed and summarised. Survey research method, examining the current situation of the external space of Luoyang village B&B, and summarising the findings. Preparation of Luoyang village B&B outside space design related issues design questionnaire, sampling to fill in the answer, or random interviews with consumers [2]. Quantitative research, the research data into the statistical analysis tool SPSS for data analysis. Qualitative research, the use of rooted theory: access, field collection of information to summarise and analyse, put forward can be implemented in the work of village revitalisation in Luoyang for village B&B external space design model language [3].

3. Analysis and summary of survey data

3.1. Data collection and analysis

3.1.1. Data collection

The research object of this questionnaire is the users of village B&B in Henan, mainly through the age group, consumption level, consumption view and other basic situation analysis, as a benchmark for the B&B's external space needs and satisfaction design research questionnaire. The whole set of questionnaires is divided into 12 questions, covering three major categories. A total of 153 questionnaires were issued and 140 valid questionnaires were returned. This research mainly focuses on the distribution of questionnaires in Luanchuan and Songxian, and the following are the places where the questionnaires were distributed, the number of copies distributed and the satisfaction related data.

3.1.2. Analysis of results

User Basic Information: Intricately tailored to diverse needs, the questionnaire captures essential data on age, gender, education, and income. The vibrant demographic profile reveals a predominant presence of young adults and middle-aged individuals, accounting for 38% and 40%, respectively. Women dominate with 55% representation, and education levels soar, with 55% possessing a bachelor's degree or higher. Incomes spanning 1000-5000 yuan per month embrace 55% of respondents.

Choice of Transport: Like a symphony, preferences unfold gracefully. Self-driving captivates 50%, harmonizing with leisure gatherings and summer excursions, creating an enchanting melody for exploration.

Purpose of Use: The village B&Bs bloom with delightful activities like sleeping, entertainment, and leisure, while adventurous spirits engage in expanding, partying, dining, and work. External spaces that accommodate parking, dining, entertainment, rest, and work orchestrate the perfect experience.

Expectations for B&Bs: In this tapestry of preferences, local culture reigns supreme, as guests yearn for the soul of the region to be imprinted on village B&Bs' exterior spaces. Functionality and quality are cherished, providing a holistic experience. A discerning few seek grand spatial volumes

to add a touch of grandeur[4].

Problems with External Space: Unveiling user perspectives, the study captures concerns. 70% sense a lack of local cultural essence, while 75% express dissatisfaction with external space quality. Versatility in functionality is sought, calling for an enriching transformation.

3.2. Summary of research studies

3.2.1. Neglect Quality

In the vibrant backdrop of "rural revitalisation," the evolution of Luoyang village B&Bs from the traditional "Nongjiale" to modern "B&B hotels" marks a transformative journey. However, as investors tread this path, they often hold fast to their previous business experiences, prioritizing interior decorations and catering services. Tragically, this singular focus sidelines the vital external spatial environment, resulting in a lack of significant improvement in the overall quality of these enchanting retreats [5].

3.2.2. Neglect Function

Within the tapestry of Luoyang village B&Bs, the functional layout of their external spaces remains enigmatic. The operators often lack a deep understanding of these spaces, clinging to traditional stereotypes, and prioritizing profit maximization over thoughtful design. The potential of external spaces is often left untapped, revealing an opportunity for a harmonious metamorphosis.

3.2.3. Neglect Culture

The very essence of Luoyang rural B&Bs hinges upon their authentic local culture and natural allure. Regrettably, some operators obsess over superficial notions of "personality" and "culture," revealing a shallow grasp of aesthetics and values. Consequently, these establishments fail to imbue the lodgings with genuine cultural connotations, leaving consumers bereft of a meaningful cultural identity. A profound exploration of their local culture is the key to unlocking the true essence of rural hospitality [6].

4. The Language of External Spatial Patterns of Village B&Bs in Luoyang

Through meticulous analysis of the research data and a profound exploration of existing issues, a captivating narrative unfolds. Centered on the external space's scale, level, morphology, and function, a compelling synthesis emerges, revealing the language of external spatial design for Luoyang village B&Bs. This inductive summary is a testament to the power of in-depth research, illuminating the path to elevate these rustic havens to newfound heights of beauty and functionality.

4.1. Building Volume and Appearance Construction

In an exquisite dance with the locale, the language of external spatial design champions the principle of localization, cherishing the preservation of local characteristics and culture. Achieving seamless harmony and unity with the surrounding environment is the guiding mantra.

4.1.1. Building Volume of the B&B Building

A delightful symphony of architectural aesthetics unfolds, as the height of B&B buildings gracefully embraces a modest three-storey limit. Embracing the environment's texture, the buildings' shapes resonate with the natural surroundings, while a captivating diversity enlivens their

layouts.

4.1.2. Appearance of the B&B Building

An enchanting ode to local cultural symbols graces the B&B's exteriors. The artistry of locally sourced building materials magnificently captures the essence of the region's elements and cultural heritage. The palette dances with colors like dark grey, earthy yellow, and black, while wood reigns supreme, accentuating the log-colored B&B buildings[7].

4.2. External Space Area

Within this captivating canvas, the external space unfolds like a tapestry of spatial richness. A symphony of functions blossoms, avoiding monotony. The interplay of open, enclosed, and combined spaces embraces visitors in a harmonious embrace.

4.3. External Space Function and Layout

Beyond the basic requirements, the external spaces of Luoyang village B&Bs intimately cater to the guests' behaviors, thoughtfully augmenting and enhancing their experiences. A delightful blend of breeding spaces, sports arenas, parking facilities, and other service-oriented zones creates a comprehensive haven of comfort [8].

4.4. External Space Facade and Pavement

The artistry of Luoyang's local characteristics finds expression in the facade's enchanting decoration. Carvings, paper-cutting, embroidery, ceramics, clay figures, bamboo weaving, and other folk crafts weave a captivating tapestry of colors, textures, patterns, and materials. Courtyard walls and partition walls seamlessly harmonize with the buildings, coordinating their shapes, materials, and colors.

In the artistry of paving, a delightful medley of materials graces the B&B's exterior space. Pebbles, bricks, wood, stone, and more elegantly combine in various forms, ensuring a vibrant and engaging ambiance. The soft touch of turf underfoot evokes relaxation and a connection to nature, enchanting guests with a sense of tranquility.

4.5. Outside Space Landscape

Within the verdant embrace of external spaces, a mesmerizing landscape of greening takes root. Evergreen plants create a vibrant canvas, interwoven with mixed plantings to foster a haven for wildlife. Vertical planting adds an enchanting dimension to the scenery.

Embodying the water's gentle caress, the water features harmonize with the overall style, echoing a captivating theme. The allure extends to the night, inviting active participation and interactivity. Water feature edging thoughtfully embraces natural approaches, incorporating elements like anticorrosive wood and pebbles, gently softening the ambiance, while aquatic and hydrophilic plants grace the water's edge, imparting a sense of serenity amidst the fluidity of design.

5. Conclusion

The research on the external space of Luoyang village lodging emanates from the author's profound journey in lodging design research and practice. Within the burgeoning landscape of village tourism in Luoyang, economic constraints and operating costs lead villagers to construct

their own lodging establishments. Lacking professional knowledge and expertise, these ventures fall short of satisfying consumer expectations, prematurely dashing the villagers' entrepreneurial dreams. Through meticulous field surveys, data analysis, and synthesis of previous work, the author unveils the intricacies of design, construction, and transformation challenges faced by Luoyang village lodgings. Presenting a model language for the design of their external space, this study aspires to serve as a guiding light for builders and researchers alike, nurturing the dreams of Luoyang villagers and enriching the tapestry of village lodging experiences.

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