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Regeneration Strategy of Rural Architecture Promoting Tourism from the Perspective of Narrative Architecture

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Abstract

With the rapid development of the construction of beautiful villages in China, traditional settlements of natural growth have been replaced by neatly planned new villages, which seem to improve the living quality of residents but destroy the original village texture. Most of them take advantage of the common cultural tourism development means in China, which leads to other ancient villages scrambling to follow suit, the emergence of thousands of villages, and other problems that need to be solved urgently.

This paper first reviews the development history and operational practice of spatial narrative design, extracts the relevance and transformability between narratology and architecture through theoretical research and analysis, and summarizes the methods of rational use of narrative space organization and arrangement according to different narrative themes. This paper tries to innovate the narrative elements according to the village unit scale, explore a new way of village reconstruction and renewal of narrative architecture, break the situation that the strategy is mostly used for the design of a single building, and then by means of an update practice of Jingxing County Lvjia village, summarize the traditional village renewal path under the perspective of narrative architecture.

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Keywords

Narrative architecture, Rural tourism, Traditional settlement, Village renewal, Lvjia village;

1. Introduction

In the context of the information society, the fourth type of economy mainly focuses on information technology and cultural and creative services, a dvocating the experiential economy and further promoting it on the basis of the tertiary industry. How to develop creative tourism in the context of the experiential economy and broaden the boundary of urban-rural tourism is exactly a question that needs to be considered in rural construction, which is an important part of China's current rural revitalization strategy and the frontier of architectural practice (Wang, 2019). Although "narrative architecture" is a new product in the field of modern narratology, they have a long history. Narrative, to some extent, establishes the relationship between architecture, time, and image.

Narrative architecture first originated in the Greek period, and the spatial narrative of the Acropolis in Athens, Greece, reflects the scene narrative of buildings organized in a streamlined line (Fig.1). "His model of shot design, switching, and length is one of the most perfect ancient films" (Eisenstein, C.M., 1937). Based on the basic concept of narrative and its extended function, architecture has a more constructive and integrated path and strategy in its methodology. Narrative architectural design has developed in both theory and practice, and it was first applied as an architectural design method in the 1980s. Bernard Tschumi and Nigel Koutes, faculty members of the Architectural Alliance College in the United Kingdom, spearheaded the interdisciplinary exploration of narrative between architecture and

literary, film, and performance Spaces (Zhou, 2019). Since then, many scholars have explored the application and practice of narrative in architecture. Sophia from the University of Michigan in the United States has systematically clarified the relationship between narrative and architecture and expounded the value of narrative in a rchitecture (Tang, 2016). Her book Architecture and Narrative: The Construction of Space and its Cultural Significance, published in 2009, has become an important milestone in the maturity of narrative architecture. The use of visual dynamics as a basis for narrative architecture can be seen in Le Corbusier's Acropolis, influenced by Towards the New Architecture, and in a series of residential designs, notably Villa La Roche and Villa Savoy (Lu, 2008). Wander from Le Corbusier's architecture to Louis Kahn's idea of architectural order to Bernard Tschumi's La Villette Park. Narrative architecture is advancing with The Times to open up new fields in various types of architecture, especially in the exhibition hall, museum, and memorial hall of the continuous emergence of exploration, such as the Jewish Holocaust MemorialHall and Dante's Memorial Hall. Architects have also tried to study spatial narrative (Dai et al., 2014) and film architecture (Lu, 2015) in their teaching courses.

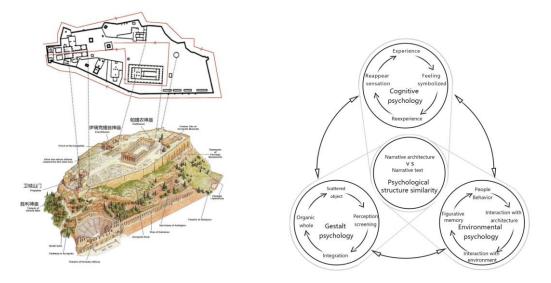


Figure 1 The Acropolis narrative route

Figure 2 Psychological commonality

Narrative, as a relatively independent branch of architecture, provides a new research paradigm for the diversified development of architecture (Lu, 2012). However, most of the previous spatial narrative and architectural narrative used a single building as the narrative carrier, and its application value in ancient village tourism has not been deeply realized. This paper attempts to explore the spatial narrative of community scale, and construct the narrative design technique of village or community scale by controlling the narrative space construction of building monomers, public spaces, and street scale. The rational use of narrative method in the regeneration design strategy of Lujia Village in Jingxing County provides a new attempt to develop the rural experiential tourism economy, suggesting a new perspective of literary narrative shaping the place spirit to promote sustainable tourism.

2. Overview of narrative architecture

2.1 Concepts

"Cities are theaters of human events, and certain Spaces are created by certain events that take place in them, and certain Spaces are filled with emotions and memories that are passed down from generation to generation." (Rossi, 2006) Therefore, the purpose of narrative architecture is to use space with regional characteristics to trigger related activities, shape cultural connotations through space experience, and reshape the interdependence between people and architecture. Architectural narrative is a creative way of thinking that can be understood as the story expressed in the place with architecturallanguage. This way of thinking makes the space where tourists are present the storyteller and the medium for the viewer's perception and connection with the place. Through various sensory experiences such

as vision and touch, the viewer's emotional experience and collective consciousness can be stimulated. Thus, the purpose of conveying the spatial theme to tourists is achieved, similar to the shaping of the spirit of place (Li et al., 2020). The translation of architecture into the essence of language is the process of reverse-establishing the symbolic meaning of space, structural relations, and architectural language. "Narrative" pays more attention to the "poetic" organization and spatial characteristics and goes beyond the technical content, such as the conversion of light and dark space and the transition and integration of space. (Hu et al., 2008)

2.2 The analogy between narrative structure and architectural structure

"In order to use the above narrative techniques, we must first master the structural correlation between textual narrative and architectural narrative. The basis of their mutual transformation is, firstly, the commonality of psychology (Fig. 2); secondly, the same creative context and similar scene narrative mode (Lu, 2015); architecture and narrative have a clear time and space structure, obvious publicity, and a common logic system (Fig.3). We can see that narratology and architecture have similar expression structures. In general, the concepts in narrative works give the abstract space dimension to discourse, while architectural creation is responsible for creating the order between concrete Spaces. Therefore, how to express time and space and how to customize the experience of time and space are common topics in architecture and literature.

	Element			Descriptive level	Spatio-temporal representation
	Message sender	Information ontology	Information receiver		Both consciously control time and space
Narratology	Author	The narrated in a text	Reader	Function、 behavior 、 text	Abstract: Fictionalized life in the text, compressed time and textualized space
Architecture	Designer	Directed /undirected user	Visitor	Material carrier, functional space, use activity	Concreteness: Solidify time and dynamic experience into space, and shape life with space entities

Figure 3 Logical system similarity comparison

Bernard Tschumi defines architecture as a narrative: "When you enter a building, it's like entering a whole new story." You go through the parts of the building in an orderly fashion, like a sequence in a movie, and the parts come together to form the story." (Rasmussen, S. E., 2003) In Tschumi's view, architecture should be a reaction and enclosure to this series of "events", so it is not difficult to use architectural narrative integration.

2.3 Relationship between architectural narrative and the updated design of Village

The architectural narrative of this paper is the design method of rural renewal under the leadership of sustainable tourism. The narrative nature of the village groups and individual units in Lujiacun, the plot and life experience based on the story, and the scene of spontaneous performance of the public make its architecture a choreographed art. People's mental journeys before traveling can be roughly divided into the following two kinds.(Fig.4) From the perspective of sustainable rural tourism, the key step in determining whether tourists will return is between the"original/initial impression" and the "enhanced/revised impression". Architects use architectural narrative techniques to establish spatial interface, form, and sequence, while also shaping spatial themes and scenes. If history, culture, and other sustainable elements are taken as the starting point to describe the scene, to create a unique spatial experience for tourists, or to awaken old memories or explore new memories, to focus on sustainable rural renewal design based on sustainable human activities.

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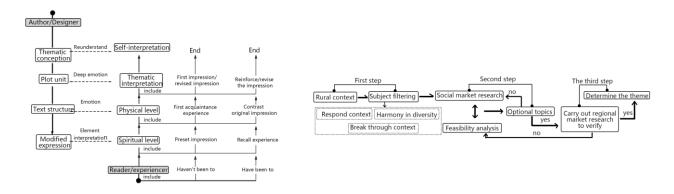


Figure 4 Narrative architecture construction and interpretation

Figure 5 Steps to determine the topic

3. Methods and strategies

3.1 Theme of narrative scene

The creation and innovation of the theme tone of an architectural narrative should come from the experience and anatomy of life. The steps to determine the topic are as above (Fig.5). Designers or planners should conduct market research in combination with local industries, cultural characteristics, and natural resources, excavate village characteristics, and carefully determine narrative themes. (Zheng, 2020) Once the theme tone is determined, it will become the compass for architects to construct basic elements, scenes, and structures. Only by creating a tone around the theme can the imagined narrative plot be generated, and finally, the emotional experience is given to people.

3.2 Narrative space design elements

Space design elements include five points: path, interactive interface, regional tone, node function, and building monomer.

Paths connect each homogeneous or heterogeneous space and are the basis of spatial sequence expansion. The path design is developed around the narrative, based on the viewer's observation of the space, and does not strictly follow the space sequence or traffic flow preset by the designer. The interface refers to the interface between the village and the surrounding environment, which generally includes the following types: village + mountain, village + hydrology, village + farmland, or village + village. The initial feeling of the village is largely derived from the interfaces that define the space. The regional tone takes squares, architectural complexes, and natural locations as the main objects, and does not necessarily revolve around the main theme. Just as the theme of emotion dominates the whole narrative content of narrative works, a single narrative statement may not involve the expression of emotion.

The complete composition of rural tourism consists of many nodes, including village reception, theater, square, historical buildings, and so on. Each node is the core of each area and is an independent scene unit. In the construction of nodes, space should be combined with the topic of the region to deepen. The proportion and scale, color and material, light, and temperature of individual buildings impress visitors and are the basis for the emotional memory of the countryside. The spatial scale of design can be used to create emotion. Architectural light can also affect the expansion and contraction of space experience. As an architectural vocabulary, the psychological implication and emotional sustenance implied by architectural materials are an important part of rural spatial narrative.

.3.3 Narrative path and rhythm

The narrative path can be divided into multi-direction, single-direction, crossover, or disorder. In other words, narrative text can interpret both "a single event" and "a collection of many events".



Figure 6 Three narrative lines of Yad Vashem Jerusalem

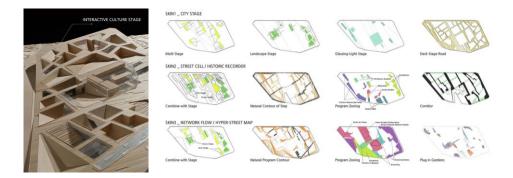


Figure 7 The Asian cultural complex

Multi-direction narrative, also known as parallel narrative, is the expression of the juxtaposition of a variety of themes. In terms of time structure, it is manifested as different spatial lines at the same time or different time lines in the same space. Different narrative events maintain their independence, and when combined, multiple events convey the same meaning. For example, in the Berlin Holocaust Memorial Museum (Fig.6), three parallel spatial plots express the different fates of the Jews in Berlin (Zhou, 2019). Coincidentally, UnSangDong Architects + Kim Woo II designed the Asian Cultural Complex (Fig.7) reproduces an urban landscape of historical traces and memories, integrating events and stages of activity.

One direction includes sequential narration and flashback narration. Chronology follows the chronological order in which things begin, develop, and end. Arrange the space in series according to the time order; divide the space logically while guiding the flow of people. According to the needs of the expression of space atmosphere, flashback shows the key plot in advance, or highlights the nodes, or delays the original scene, paving the way for the subsequent space atmosphere, creating suspense, and making the bland plot full of drama. Liu Jiakun's West Village Courtyard uses architecture to construct a complete network of story plot space. (Fig. 8,9)

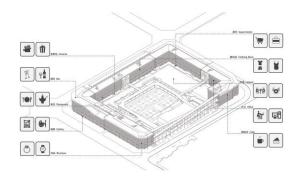




Figure 8 Narrative events contained in the West Village Courtyard

Figure 9 Reappearance narrative of the former scenes of the Courtyard pg. 5

Disordered narration has episodic narration, which is to place a heterogeneous narrative space into a group of homogeneous narrative spaces (Wu,2022). Heterogeneous space cannot dominate but can create twists and turns in the space experience and visual changes in the original space, presenting rich spatial effects. Crossover can be understood as text narration, while spatial narration means that scenes presented in two spatio-temporal situations appear in the same spatio-temporal situation at the same time and become scene nodes in the space side by side, without leading visitors. The classic case of disordered and cross-narrative is the PARC de La Villette in Paris, designed by Bernard Tschumi, which arranges a three-dimensional spatial narrative system with the help of montage in the three systems of point, line, and surface. Each "collision event" of the plot is repeated, reversed, replaced, and inserted like a montage, which is perceived and remembered in continuous motion.

The rhythm of the space controls the narrative mood of the whole exhibition space. The key to mastering narrative rhythm lies in the consideration of walking time and length to achieve control of frequency. (Li et al., 2020) The setting of the rhythm should be based on the narrative theme of the exhibition space. Through the regular visual changes in the space, we can always feel the sense of rhythm and hierarchy of the space throughout the tour.

4. Jingxing County Lvjia Village tourism promotion practice

4.1 Narrative Background



Figure 10 Aerial view of Lujia Village

Figure 11 Stone architecture of Lu family

Figure 12 Revolutionary live action drama

Lujia Village is located in the Taihang Mountains, but the outside traffic is convenient. The village is close to traditional historical villages and natural scenic spots (Fig.10,11). The mountain, as a natural barrier, strengthens the military defense; here since ancient times, the Ji-Jin throat and strategic location. There are still relics of the anti-aggression revolution. In recent years, Lvjiacun has gradually developed a tourism industry that focuses on art teaching and Red Revolution melodramas (Fig.12).

In the process of investigation, it was found that the problems of tourism development in Lujiacun mainly include: Lujiacun lacks tourism characteristics and clear positioning, which require the intervention of unique ideas and distinct themes; The architectural decay of the ancient village is serious: the architectural style is uniform but monotonous, and the architectural color is dull. In particular, some houses in the ancient village collapse, and tourists can see the architectural decay scene. Imperfect tourism-supporting facilities: Lvjia Village's tourism supporting facilities are not perfect and cannot meet people's basic needs.

4.2 Practice

4.2.1 Macro narrative context -- Jingxing County

The good development of Lvjia village cannot be separated from Jingxing County's large tourism environment; village planning should consider the multi-line narrative planning strategy of "connecting areas into a piece". Jingxing County has several traditional ancient villages with natural factors, joint with the surrounding villages horizontal development, Jingxing County tour scope traditional village reserve features advantages to explore, by a single tour point series into a regional tour, each village tells their own story and drives the development of the village, to better realize the whole area of rural revitalization. (Zhang et al., 2019).

4.2.2 Meso narrative context -- Lujia Village

(1) Emotional introduction -- narrative theme

The Jingxing County survey found that revolutionary memory is the narrative background of a few villages, so the use of the revolutionary culture of Lujia village, the focus of the revolutionary culture, is to be able to see red movies and dramas to improve the core competitiveness of Lujia village.

Aiming at the specific story background of Lujiacun, we adopt the dual narrative theme of "one main story and one pair of two-line narratives." The main narrative thread is "revolutionary theater", creating a narrative experience route of the Red Revolution and deepening the narrative impression on the basis of the melod rama of the spontaneous revolution in Lujia village. Another hidden narrative line is "reproducing Lv's family", which puts forward deeper suggestions on the renovation and updating of art teaching and cultural and creative handicraft. (Fig.13)

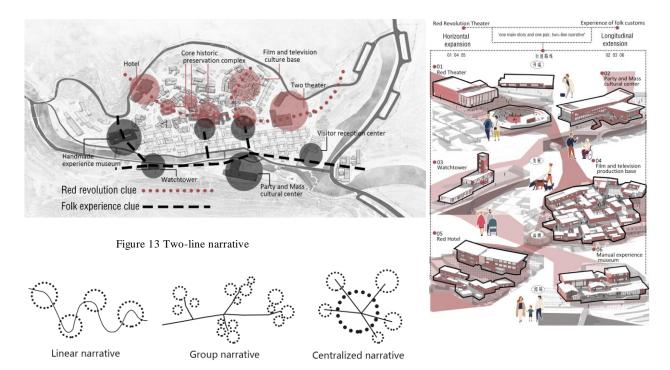


Figure 14 Three kinds of narrative sequences

Figure 15 Single frame -- architecture

(2) Narrative structure -- narrative spatial sequence organization

Taking the whole village as an exhibition ground and integrating the village scene to promote the narrative process of the revolutionary story of Lujia Village, the story content needs to be organized and arranged, from observing the scene to thinking about the significance of each spatial arrangement (Xu, 2021). There are three kinds of narrative sequences in Lvjiacun: linear, centralized, and group (Fig.14). As the main guide for visitors to carry out activities, the linear narrative of Lujia village—revolutionary melodrama almost runs through the whole village. Centralized narration creates a theme-based cultural experience area for film and television. The main and secondary themes of group narrative appear at the same time with strong independence.

The development of the narrative sequence uses the road in the village as the track. In order to ensure that tourists can appear at the expected narrative points, it is necessary to clarify the village structure and road level and adjust and repair the village roads (Fig.16,17).

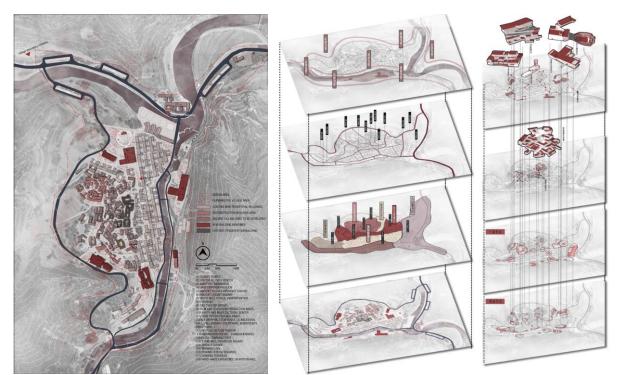


Figure 16 Overall planning map

Figure 17 The narrative structure unravels

(3) Single frame -- building construction

An architectural narrative on a single frame should be targeted to awaken the memory of specific segments. (Fig. 13,15) In the narrative line of "Revolutionary Theater", a theater appears in the prologue. After visitors enter the entrance of the village, the outdoor theater on a high level is fascinating and creates suspense. The Red Theater is located in the northernmost part of the village and was built on the site of the original outdoor theater. Since the original theater embodies the architectural characteristics of the Soviet Union in the last century, its wall is kept embedded in the new theater. After entering the ancient village, as the first memory point, it will first impact the tourists' initial impression of the building volume and environment. With the question of why the grand theater is built in the mountain and why there is such a residual wall in the interior, we will take the next step. At the same time, the terrace on the north side of the theater will be rebuilt to provide shade for villagers and tourists to hold wed ding and funeral activities. The narrative segment is set between mountains and rivers and surrounded by ploughed fields. It is very pleasant for villagers and tourists to sit here in the summer evening to experience farming culture, enjoy the wheat fragrance, watch the starry sky, and listen to the babbling water.

The development part of the narrative story is the Red Revolution film and television base, which is the centralized narrative of the area volume. Multiple space plots in the scene revolve around the central content of film and television shooting, forming a narrative structure. The story ends at the end of the village, where visitors are ushered into a revolutionary culture-themed hotel for a rest. The building is designed in a modern way, but the building materials and other architectural vocabulary still use local elements such as stone, wood, and glass. The courtyard of the hotel and the roof of the homestays are open to the new and the old to create the Red Cultural Development Area.

Another hidden narrative line also focuses on experience (Fig.13,15), starting from the martyrs' memorial stele pavilion at the entrance of the village, creating suspense and laying the revolutionary tone. The climax of the narrative is the Party Cultural Center across the river. Using the height difference of the site to form a zigzag ramp up the building block, meaning the new China through the difficult zigzag road. Watchtowers, also on the other side of the river, bring visitors into the role of sentinels defending the village. With a height of 8m, the tower is an excellent scenic lookout for the whole village. You can get the whole picture of the village without climbing the mountain, which greatly improves the viewing experience of the ancient village. The end of the narrative gets rid of the serious atmosphere of the early stages and turns into a relaxed and casual style. Located at the southern end of the village, the handmade creative experience Pavilion is located at the southern end of the village.

fun of local handmade weaving and dough sculpture, taste the food, and participate in the production of food ingredients. This narrative route gives visitors a deep sense that even through war and even without wealth, one can live a colorful and interesting life. To achieve the ultimate goal of tourism: to heal the heart and look forward to a better future.

Two narrative lines, one main and the other, cross each other on the pedestrian sightseeing flow line because of the road structure in the village. Each plays a role in producing a superimposed effect to deepen people's experiences of visiting life in the village. In terms of geographical location, due to the dense layout of the buildings in the village, the transformed monomer and area are located outside the village and distributed in all directions, showing a radial shape centered on eight historic protected buildings.

(4) Enhanced modification -- detailed narrative description

The description of architectural details is in line with the narrative theme of revolutionary culture, not only to provide a brief sense of viewing, but also to provide a narrative plot theme closely related to the scene, props, order, materials, etc.; that is, the detail has the ability to express the theme to ne of narrative architecture. (Xu, 2021) The main part of the building follows the form and materials of the original building. In the atmosphere rendering, the design elements of the black and white viewboard frame, steel, glass, leather, and other materials are used to form a sharp contrast with the closed and solid old buildings. The color and style are still designed in black and white gray, so as to integrate the old and new buildings as far as possible.

Architectural colors and lighting details attempt to create a sense of the old modern, allowing users to be immersed in the square inch of each frame of the viewfinder frame, immersed in the so-called old golden age of film. The viewfinder frame in the architectural space can also be used to "record" the behavior of different people in the space, so that those dramatic moments in life become the inspiration for film creation and the charm of the film. As night falls, warm yellow light spills through the glass from the somewhat dilapidated stone house, elevating the level of the building and the feeling of use while also providing a good view of the village at night.

5. Summarize: The revelation of "narrative"

Tschumi Bernard once said, "No event, no architecture." (Tschumi Bernard,1981) Events produce meaningful buildings and places through spatial narrative. (Li,2022) Based on this theoretical basis, the tourism strategy of Lujia village discussed in this paper can deepen the tourists' memory to a certain extent and seize repeat customers by applying architectural narrative to the rural scale, regenerating the theater narrative scene of revolutionary memory, and reexperiencing the folk narrative atmosphere of Lujia. At the same time, this discussion aims to clarify the industrial positioning of Lujia village, shape a new economic and industrial structure for the village, attract young people who struggle outside to "go home", and completely activate the regeneration of Lujia village.

In the process of applying narrative architecture, we find that, first, in the renewal design of ancient villages, attention should be paid to its particularity, to explore its characteristics, and to pay attention to the differences in narrative theme, structure, media, and scale between rural architectural groups and individual buildings.

Second, the application of narrative architecture is closely related to sustainable architecture. The definition of sustainability is not limited to the reduction of environmental resource consumption but extends to various levels such as society, economy, and culture. (Chu et al.,2021) However, the focus of Sustainable Architecture on these aspects is still in the initial stages of research. The narrative technique combines the natural environment and building materials to achieve the sustainability of green technology, and the spatial scene mining of memory points can achieve the sustainability of cultural economy.

Thirdly, the method itself has certain limitations and is suitable for villages with their own characteristics. Such as natural environmental resources, historical and cultural memory, architectural decoration features, or folk food characteristics. However, there are many villages in China that do not have their own distinct characteristics, so it is difficult to construct spatial scenes by organizing narrative texts.

In addition, the depth of the narrative and the integrity of tourism planning need to be improved. Due to the complexity of the monomer design part, there is no complete presentation. Limited by the author's own practical experience, this paper only discusses the initial planning and design levels, and there will be many problems and challenges in the practice process. Designers, managers, and villagers need to work together to make adjustments. The application of narrative architecture on rural roads requires constant learning and revision.

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Ethics approval

Not applicable.

Conflict of interest

The author declare no conflict of interst.

References

Wang Rong, Huang Pengtao, Hu Jing, Li Yajuan (2019) A study on rural tourism experience in Wuyuan County based on online travel notes, Resources Science, 41 (02), 372-380

Eisenstein. C. M. (1938). Mongtage and architecture.

Zhou Longhua (2019). The study of film architecture on the narrative technique of architectural space. Master degree, Tianjin University, http://doi.org/10.27356/d.cnki.gtjdu.2019.003610

Tang Lei (2016). Research on the application of narratology in the design of cultural exhibition buildings. master degree, Hunan university

Lu Andong (2008). Cinematic architecture and spatial projection. The Architec. (06), 05-13

Dai Qiusi, Yang Wei, Zhang Bin (2014). Narrative space structure teaching research. New Architecture, (02), 112-115

Lu Shaoming (2012). The Origins of Architectural Narratology, Journal of Tongji University (Social Science Edition), 23 (05), 25-31

Aldo Rossi (2006). Urban Architecture. China Architecture and Architecture Press.

- Li Zhen, Tian Yuan, Lv Hongyi, Li Xiaolei, Wang Chuan. (2020). Research on Exhibition space of Daxie Village Historical Museum based on Spatial narrative, Chinese and Foreign Architecture, 12, 48-51, http://doi.org/10.19940/j.cnki.1008-0422.2020.12.013
- Hu Bin, Jin Yanlin (2008). Starting from the earth -- Teaching plan design for the second year of undergraduate architecture. Architectural Journal, (07), 81-84
- Lu Andong (2015). Film Architecture as a space teaching course, Architectural Journal, (05), 5-11

Rasmussen. S. E. (2003). Architectural Experience. Intellectual Property Press

- Zheng dan (2020). The architectural space to create regional culture strategy based on spatial narrative study. Master degree, Hunan University, http://doi.org/10.27135/d.cnki.ghudu.2020.001256
- Wu Fanji, Qiu Yu, Guo Kaihui. (2022). A strategic study on the plot construction of architectural space based on film narrative techniques. Architecture&Culture, (02), 61-62. http://doi.org/10.19875/j.cnki.jzywh.2022.02.025
- Zhang Yan, Wang Xi, Zhang Xiaodong, Ma Qixing (2019). The country revitalization of multimodal que global tourism in jingxing county as an example, dynamic good habitat,2019 Annual meeting of China's urban planning urban and rural areas on rural planning,(18),11, http://doi.org/10.26914/c.cnkihy.2019.028103
- Xu Haiwen (2021). The rural experience home stay facility design based on the theory of the construction of narrative study. master degree, Southeast university, http://doi.org/10.27014/d.cnki.gdnau.2021.004519

Tschumi Bernard (1981). The Manhattan transcripts. Academy Editions:New York

- Li Zhenmin (2022). "Event" architecture: textual construction of architectural space narrative. Architecture technique, S1, 230-233. http://doi.org/10.19953/j.at.2022.s1.037
- Chu Yingnan, Sun Jingfen, Chen Xiaojuan, Xie Dan, Song Yehao (2021). Exploration of Narrative Design Method on Sustainable Architecture. Zhuangshi, 09, 12-17. http://doi.org/10.16272/j.cnki.cn11-1392/j.2021.09.043