

# Constructing an ideal home: Affective atmosphere creation as a public participation strategy for urban village renovation

**Abstract:** The renovation of urban villages is not only about transforming physical space, but also about guiding the residents' emotional integration in public participation. Combined with the theoretical foundation of affective atmosphere, this paper takes the renovation of Luofeng village in Guangzhou as a case study, conducts a visual study on the exhibition center of the renovation in Luofeng village, and explores the spatial perception and emotional building process of the residents to the exhibition center, to explain how to use the space for public participation to create a "home" atmosphere as an affective strategy for urban village renovation. The study found that participants in the eye-tracking experiments showed interest in the historical continuity landscape and future imaginative space of the display center, focusing on the visual symbols that carry the narrative of daily life and evoking positive emotional responses to these elements. Through the creation of its physical environment, the residents' embodied practices, and the negotiation and interaction between different subjects, the village renovation exhibition center creates an atmosphere of home and realizes the emotional reproduction of the residents, transforming from a space for public participation to a place carrying the residents' emotions about their home and community.

**Keywords:** Urban village; Urban renewal; Home space; Public participation; Affective atmosphere

## 1 Introduction

Since the reform and opening up of China in the late 1970s, urbanization in China has gradually accelerated with the country's rapid economic growth. In the process of urban expansion, the government has expropriated farmland but retained village home sites to minimize compensation costs and political resistance (Buckingham & Chan, 2018). The villages around the city are surrounded by the expanding built-up area, becoming urban villages (Wu et al., 2013). In order to reshape the physical and social landscapes of cities, improve land utilization, and further promote urban development, some Chinese cities have gradually begun to renovate urban villages (Couch, 1990). The real estate development-led and top-down planning of urban village renovation has caused conflicts between residents and the government and developers in Chinese society (Chaskin et al., 2012). Although urban renewal theoretically aims to improve the physical, economic, and social conditions of an area, it objectively runs the risk of exacerbating class stratification and socio-spatial differentiation (Zukin, 2020), and the different demands of different stakeholders have caused multiple difficulties for urban village renovation projects (Zhuang et al., 2017). Moreover, local residents are often excluded from the decision-making of urban village renovation projects (Jiang et al., 2020). In the process of redeveloping old villages, villagers do not have sufficient understanding of the implementation rules of the transformation or their economic interests are damaged, which leads to the frequent occurrence of "forced demolition" and "nail households", triggering public resistance and rejection (Zhao et al., 2021), causing great social resistance and controversy (Gu & Zhang, 2021), and a sharp increase in the time cost of urban village renovation projects, resulting in different degrees of loss of interests for all participants in the projects.

Against this background, in 2011, the Chinese government promulgated the *Regulations on the Expropriation and Compensation of Houses on State-owned Land*, which required public participation in the process of urban renewal (He, 2019) and prohibited the forcible expropriation of residents' houses. In subsequent urban renewal, public participation was introduced into the decision-making process of urban village renovation projects (Li et al., 2020) to harmonize the conflicting interests among different participants (Zhou, 2014). However, in China, government-led urban village renovation is still the most common mode of urban renewal (Li et al., 2020), and some scholars believe that public participation in this mode is only "symbolic" public participation, and that the rights and interests of the residents are not really protected (Xu & Lin, 2019). In this model, residents often learn about the renovation plan through the renovation documents and floor plans provided by the government or developers, and then express their opinions through voting, but this abstract approach has cognitive barriers for them, especially the elderly. This also draws the attention of current research to the contents of the interest game between various stakeholders in public participation (Jiang et al., 2020), and the methodological system of public participation (Wu, 2016).

In fact, the large-scale renovation of urban villages destroys the villagers' continuous identification and control of the surrounding environment, triggering not only changes in the physical environment, but also impeding the continuation of local attachment, and bringing about the re-adaptation of cultural habits (Zhang et al., 2022). Therefore, how to take into account the emotional needs while taking into account the fairness has become an important issue in the public participation stage of urban village renovation. In China, the urban village is not only a living space, but also retains the traditional social network based on blood relationship and geography (He, 2019), which symbolizes the "big home" in the villagers' mind. "Home" in this context includes the objective physical living environment, as well as the assemblage of emotions that the people in it feel towards the environment (Sixsmith, 1986). This sense of home is believed to create a sense of well-being during the transition of renovating a living space (Van Hoof et al., 2016). The importance that the Chinese place on the atmosphere of home determines that public participation in urban village renovation should not just be about decision-making and expression of opinions, nor should residential space renewal be viewed as a single physical space renovation, but rather, it should enable the residents to reconsider the space as their own home (Cutchin et al., 2003) to achieve an emotional integration.

Emotions can shape the nature and experience of people's presence in the world, and people's identities are constantly shaped by their emotions (Davidson & Milligan, 2004). The awakening of emotions in the study of human geography is manifested in the 'emotional turn' in geography, triggered by influences such as non-representational theory (Bondi et al., 2016). Emotions have begun to move away from the realm of purely subjective spiritual issues to the broader society, receiving extensive research attention (Holton, 2017; Duffy et al., 2019; Hook, 2016). At the beginning of the 21st century, Anderson and Smith (2001) introduced the concept of emotional geographies, calling attention to the impact of various policies on emotions and the interrelationships between people, emotions, and space (Davidson & Milligan, 2004). Geographers have begun to explore the mechanisms by which emotions shape social space, calling for the inclusion of emotional impacts and costs in public policy decisions, rather than considering only economic and political impacts (Anderson & Smith, 2001). The right of residents to demand emotional security, a sense of belonging, and a desirable lifestyle during urban renewal and local reconstruction has been understood by scholars as an "emotional right" (Gao et al., 2020). However, these studies have mainly focused on the representation and expression of emotions, and how residents' performative, non-representational, and embodied practices are related to the production of emotions (Duff, 2017) is a neglected part of the research.

So, what is the basis for the production of emotion? Anderson (2009) suggests that atmosphere is the

common ground for the production of subjective states and their attendant feelings and emotions. Affective atmospheres are produced with some form of "enclosure" by multiple types of interacting objects, often defined as a collection of shared feelings resulting from interactions between people and their cultural and physical environments (Shaw, 2014), but also including specific geographical conditions and images (Lindberg & Lundgren, 2022). Atmospheres have been described as emotional radiations in space (Schmitz, 2007), appearing as an intermediate position between subject and object, or more precisely as the unity and coexistence of subject and object (Anderson, 2009). They are spatially invisible, produced and felt through moving bodies (Hitchen, 2021), but not from a single individual, human or non-human (Anderson, 2014; Fregonese, 2017). Emotional interactions in the atmosphere do not individualize us, but create relationships of irreducible complexity that require constant adjustment to differences in power, history, and lived experience (Leff, 2021). As the renovation of the urban village proceeds and the daily lives of the residents continue, the atmosphere created through and around the activities will continue to change (Tan, 2021). The ability of affective atmospheres to constitute not only current spaces, but also equally past spaces, makes it necessary to also take atmospheres into account as decisive cultural parameters when understanding the pre-renovation situation in urban villages (Sørensen, 2015) and to reshape the residents' experience of affective atmospheres in the context of public participation.

The process of urban village renovation is not only the transformation of physical space, culture and symbols, but also the construction of affective atmosphere. In this paper, we introduce the discussion of affective atmosphere into the public participation of urban village renovation, taking Luofeng village in Guangzhou city as a case study, and analyze how Luofeng village creates an affective atmosphere through the public participation space (i.e., Luofeng village's renovation exhibition center) in order to construct an ideal home for residents. In the next section, we will construct the theoretical framework of the article by sorting out the operation mode of the affective atmosphere; the third section is the introduction of the methodology; the fourth section is divided into two parts, firstly, through the visual research, we will dig out the people's affective experience and the atmosphere embodied by the exhibition center of Luofeng village's renovation, and then we will further discuss, together with the interviews, how the affective atmosphere is generated, overflows and connects with the future renovation of the completed space; finally, the article concludes with a discussion. This paper explores the role and influence of affective atmosphere in urban renewal characterized by public participation, and provides an efficient practice model of public participation for the renovation of urban villages.

## **2 Theoretical framework: the operating mode of affective atmosphere**

When setting an affective atmosphere in a space, there is a need to better understand how spatial change takes place and permeates everyday life (Thibaud, 2015). Affective atmosphere is not a 'free floating' expression or spatial entity (Böhme, 1993), but rather a quasi-autonomous emotion produced and constituted by the relational encounter between human and non-human bodies, representing an ambiguous or intermediate zone between object and subject (Anderson, 2009). Affective atmospheres are therefore fluid, contingent, and unstable, moving with the changing relationship between subject and object (Buser, 2014). In order to create the atmosphere of an environment, we need to control not only the physical parameters of a built environment, but also give it a value of emotional presence (Thibaud, 2015), focusing on the activity of the subject. This indication is a post-humanist way of thinking about place as not only fluid or changing, but also as materially mediated expression (Buser, 2014). Through the encounter and synergistic functioning of subject and object, urban village renovation is always a process of change, accompanied by the

coalescence and dissipation of an affective atmosphere. The continuation of this atmosphere needs to be integrated by providing the same tonality for all the content that emerges, embodied in the negotiated interactions between different subjects based on the purpose of spatial maintenance. This operation of installing atmosphere in an enduring way in the public participation sessions of urban village renovation depends on the integration of professional activities and everyday practices by residents and developers (Thibaud, 2007; Thibaud, 2015). Everyday activities contribute to the internal dynamics of atmosphere by revealing the sensory potential of the place (Thibaud, 2011), and affective atmosphere pervades everyday sensory experiences. Under sensory experience, the neural factors behind representational symbols such as texts, images, and landscapes reflect the mechanisms of emotion production (Lakoff & Johnson, 1999; Johnson & Lakoff, 2002). And vision, as an important sense for perceiving space and emotion, has a very different way of conveying information relative to language (Pykett, 2018), which can better convey the subject's affect, feelings and emotional state. Therefore, we use visual analysis to tap into the performance of affective atmospheres. Figure 1 shows the operation mode of affective atmosphere and how it connects with urban village renovation, which will be the theoretical framework of this paper.

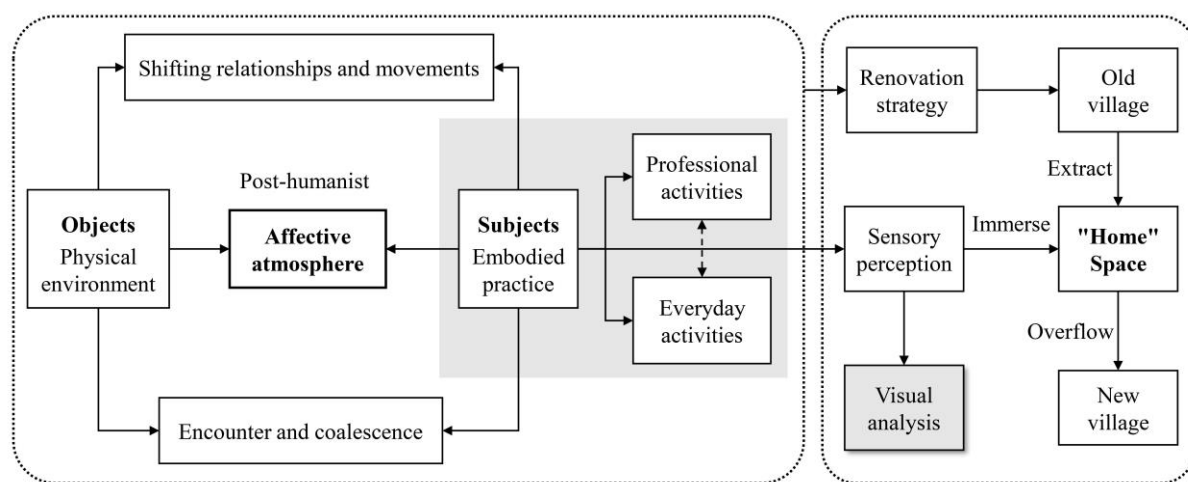


Fig. 1. Theoretical framework.

### 3 Methodology

#### 3.1 Study area

The renovation of urban villages has now become a task that is being actively and steadily promoted in China's mega-cities. Guangzhou, as a typical area of rapid urbanization in China, is one of the pioneering cities in the renovation of urban villages. Among them, the renovation of Luofeng village is an example of Guangzhou's rapid demolition projects in recent years, which took only two and a half years from approval to full construction, creating a rare speed in the course of Guangzhou's and even the country's urban renewal. We selected the renovation process of Luofeng village in Guangzhou, China, as a research case to analyze how the village uses affective atmosphere creation as a renovation strategy. Luofeng village is located in Huangpu district of Guangzhou city, and it adopts the renovation mode of total demolition and reconstruction. Before the renovation, Luofeng village is a typical urban village with dilapidated buildings, poor infrastructure support, and poor living environment. In 2014, the villagers' representatives of Luofeng village voted on their willingness to renovate the village, and 96.7% of the villagers' representatives agreed to carry out the renovation of the village, and the renovation of the village began to be put on the agenda. In 2018,

the renovation plan for the village was accepted by the villagers' representatives, the Huangpu district government, and the Guangzhou municipal government.

The renovation project constructed a village renovation exhibition center with a total area of about 8,000 m<sup>2</sup>, which is the focus of the emotional strategy in the renovation process of Luofeng village. It took only 10 months from the opening of the exhibition center in June 2019 to April 2020, when the overall signing rate of villagers exceeded 90%, and attracted managers and residents of other urban villages ready for renovation to visit. The exhibition center mainly includes the renovation project exhibition hall, renovation negotiation and signing room, conference room, children's playroom, semi-open negotiation room and villagers' resettlement housing model room. It is not only a space for displaying the renovation project, but also an important space for public participation. The exhibition center provides residents with opportunities for festivals, community activities, and parent-child activities, and also provides space and channels for residents to participate in the renovation decisions of the urban village project. We conduct a visual analysis of the exhibition center to uncover participants' perceptions and emotional attitudes toward the space, and further analyze how the exhibition center serves as an important part of creating an affective atmosphere in the village renovation process. Figure 2 presents the geographic location of Luofeng village and its renovation exhibition center, the main renovation scope of Luofeng village (resettlement area and financing area), and the floor plan of the renovation exhibition center of Luofeng village.

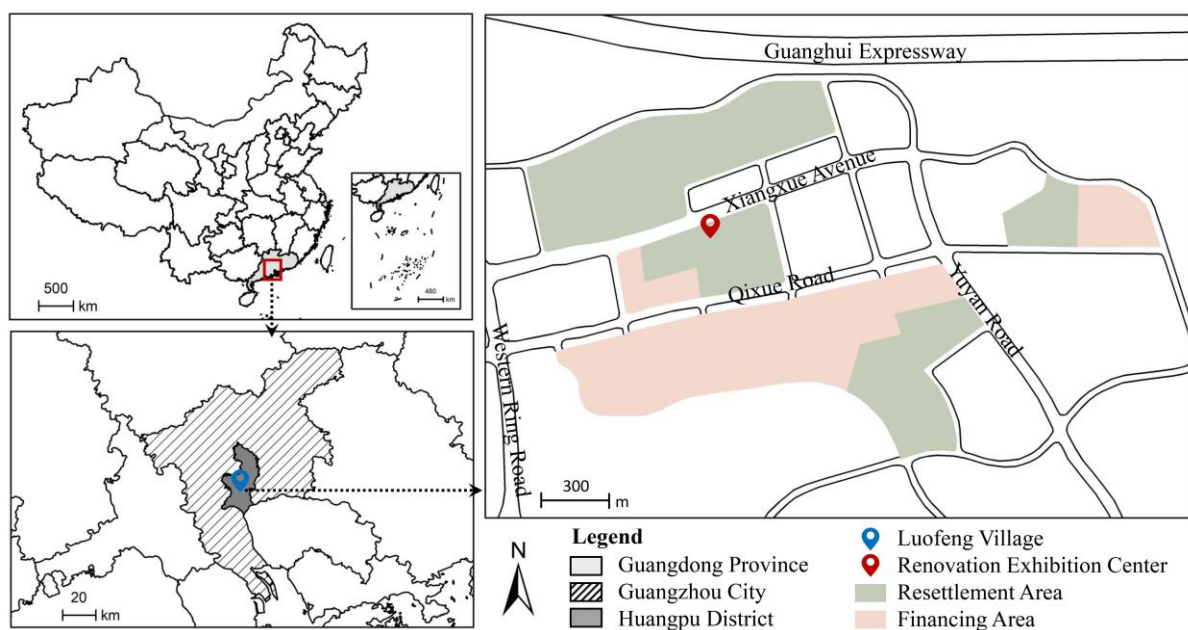


Fig. 2. Location map of Luofeng village and its renovation exhibition center.

### 3.2 Materials and methods

The visual research method presents the residents' emotional experiences and their constructed subjective interpretations in visual data, which is conducive to improving the scientificness, completeness and logic of the study. In this paper, visual methods are integrated into geographical research by obtaining the picture materials of the village renovation exhibition center through self-directed photography of residents and non-residents of Luofeng village, conducting eye-tracking experiments, and combining semi-structured interviews to decipher and interpret the spatial emotional meanings of the exhibition center in order to excavate the manifestation of the affective atmosphere. Therefore, this study covers three experimental parts, which are self-directed photography, eye-tracking experiments, and semi-structured interviews, and the

participant information in each stage is shown in Table 1.

Tab. 1. Participants' information.

Self-directed photography				Eye-tracking experiment							
ID	Surname	Sex	Age	ID	Surname	Sex	Age	ID	Surname	Sex	Age
S1	Lin	Male	21-30	A1	Lei	Male	21-30	B1	Zhong	Male	31-40
S2	Liao	Female	21-30	A2	Wei	Male	21-30	B2	Zhong	Male	41-50
S3	Zhang	Female	21-30	A3	Ding	Female	21-30	B3	Zhong	Male	41-50
S4	Lin	Male	21-30	A4	Wang	Male	21-30	B4	Zhong	Male	51-60
S5	Li	Male	21-30	A5	Guan	Male	21-30	B5	Chen	Female	51-60
				A6	Song	Female	21-30	B6	Zhong	Male	41-50
				A7	Yang	Female	21-30	B7	Zhang	Female	41-50
				A8	Cheng	Male	21-30	B8	Zhong	Male	51-60
				A9	Zheng	Female	21-30	B9	Zhong	Female	41-50
				A10	Deng	Female	21-30	B10	Zhong	Female	41-50
				A11	Chen	Female	21-30	B11	Zhong	Female	51-60
				A12	Gao	Female	21-30	B12	Zhong	Female	41-50
				A13	Jiang	Female	21-30	B13	Zhong	Male	51-60
				A14	Chen	Male	21-30	B14	Zhong	Female	31-40
				A15	Chen	Female	21-30	B15	Qin	Male	51-60

Note: Serial numbers beginning with S are participants in the self-directed photography, serial numbers beginning with A are non-residents participating in the eye-tracking experiment, and serial numbers beginning with B are residents of Luofeng village participating in the eye-tracking experiment.

### 3.2.1 Self-directed photography

Five college students were recruited to conduct self-directed photography of the village renovation exhibition center in Luofeng village in order to collect visual image materials. A total of 100 images were collected during this phase. At the same time, we used the Internet to collect 10 photos of the exhibition center to cover additional information that was not available on the day of the photo shoot. Since the interior space of the exhibition center is small and the elements of spatial composition are not abundant, we eliminated the blurred, duplicated, and ambiguous representational meanings, and processed the photographs uniformly into a 4:3 ratio, obtaining a total of 16 pieces of experimental materials, which were numbered according to F01-F16 (Fig. 3). The photos basically cover the physical space and social and cultural activities of the exhibition center. Among them, F01-F02 are mainly the LED screen and sand table showing the renovation plan of Luofeng village; F03-F09 are the model garden area constructed in the exhibition center, including rockeries, lakes, trees and pavilions, which show the outdoor public space for the residents after they move back to the village in the future; F10-F12 include the water bar, sofas for sitting and the consultation room for the residents; and F13-F14 are the Dragon Boat Festival activities and the birthday party for the elderly in the community held in the exhibition center; F15-F16 is the model house for the residents to move back to, which shows the living space for the residents after moving back to the community in the future.

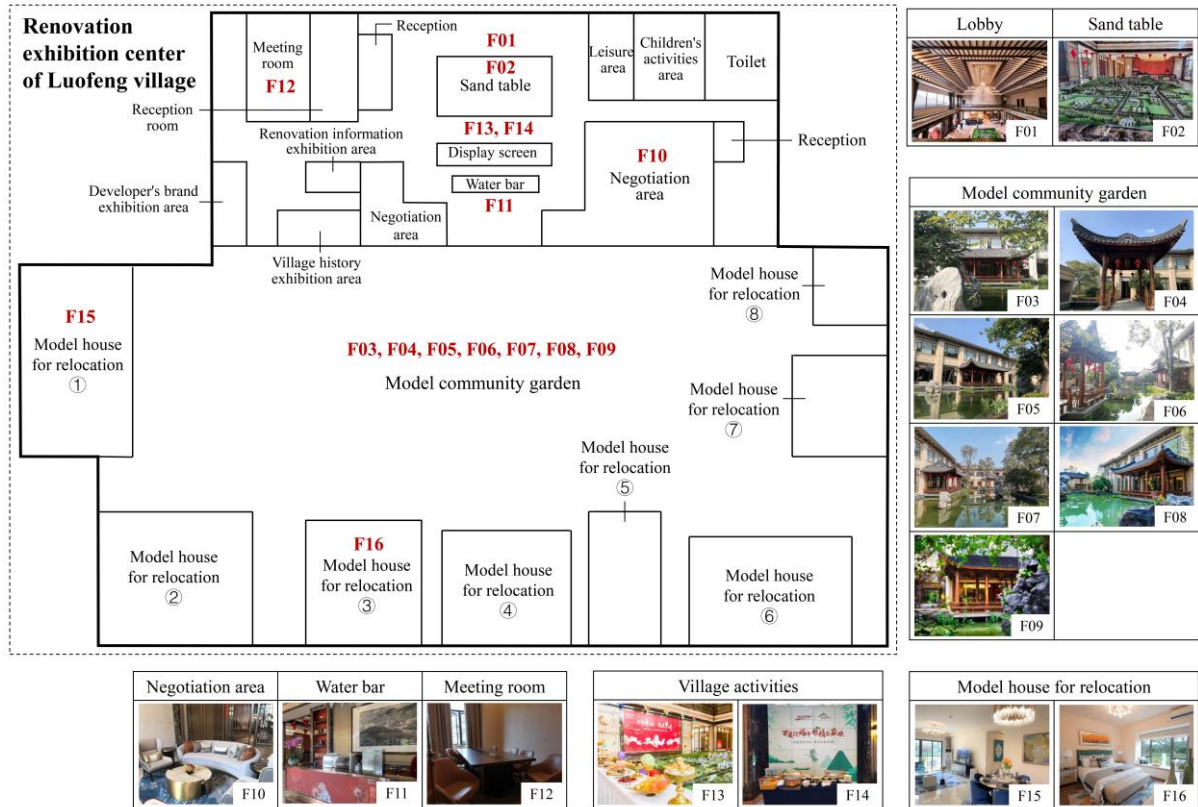


Fig. 3. Sixteen experimental images obtained by screening self-directed photographic materials.

### 3.2.2 Eye-tracking experiment

Eye-tracking research explores the intrinsic mental activities or cognitive processes of people by recording and analyzing their eye trajectories when observing external objects. In the second phase of the study, a total of 30 subjects were recruited for the eye-tracking experiment. The subjects were divided into two groups, with the experimental group including 15 local villagers from Luofeng village and the control group consisting of 15 ordinary citizens. The study used EyeLink Portable Duo eye-tracker to record eye-tracking data, which were processed to obtain four main indexes, namely, total gaze duration, number of gaze points, average gaze duration, and pupil dilation rate, with different data indexes having different meanings in visual interpretation (Tab. 2). In addition, we derived an attention hotspot map for each picture to reflect the area of interest of the subjects for each picture. All participants had normal naked or corrected visual acuity, no color blindness or color weakness, and good mental status during the experiment, which met the experimental requirements. After obtaining the eye-tracking data, we used SPSS 22 to analyze the difference between the data of the experimental and control groups. The data appeared significant in the homogeneity-of-variance ( $p < 0.05$ ), we used Welch anova to analyze whether there was a significant difference between the data of the experimental group and the control group.

Tab. 2. Major eye-tracking indicators and their meanings.

Indicators	Statistical methods	Meanings
Total gaze duration	The sum of the durations of all gazes that fall within the zone of interest	Reflecting the subjects' attention to the photographs (Qian et al., 2011)
Number of gaze points	Total gaze points that fall within the area of interest	

Indicators	Statistical methods	Meanings
Average gaze duration	Ratio of total gaze duration to number of gaze points	Reflecting the difficulty and cognitive load of subjects' information processing of photographs (Guo et al., 2018)
Pupil dilation rate	Growth rate of mean pupil size within the area of interest compared to the mean pupil size during baseline	Reflects subjects' level of interest and emotional reflections on photographs (Kanovský et al., 2022)

### 3.2.3 Semi-structured interview

Although data from eye-tracking experiments can reveal cognitive and affective changes in subjects, the interpretation of the data should be based on actual social conditions, and qualitative research methods have an important role to play in this regard. We conducted semi-structured interviews with subjects who participated in self-directed photography and after the eye-tracking experiment, respectively. Among them, the interviews after the self-directed photography were designed to understand the motivation and spatial perception of taking pictures, while the interviews after the eye-tracking experiment focused on understanding the subjects' feelings and spatial evaluations after looking at the pictures.

## 4 Creating an affective atmosphere in the renovation of Luofeng village

### 4.1 Visual experience and emotional attitudes of village renovation exhibition center

#### 4.1.1 Cognitive load

We counted and visualized the subjects' total gaze duration and average gaze duration for each picture (Fig. 4). It can be seen that the total gaze duration was generally longer in the control group, who showed more interest in the pictures as a whole and spent more time on information processing; however, the experimental group had a longer average gaze duration for the detailed elements of the pictures, and the cognitive load was higher than that of the control group. There were significant differences between the two groups in gaze duration, number of gaze points, and average gaze duration by Welch anova test (Tab. 3). Residents of Luofeng village were more familiar with the field environment than the control group who had not been to the exhibition center due to their better understanding of the renovation project and their embodied experience in the space presented in the pictures. As a result, they paid more attention to the places they were interested in when viewing the pictures and observed these places more carefully.

Combining Figure 4 and the interviews, it can be seen that both the experimental group and the control group showed higher interest in pictures F06, F13, F14, and F15, which were about the sample garden area of the exhibition center dominated by a water feature, the festive activities, and the model house of the living room. In addition, comparing the total gaze duration between the two groups, the experimental group also showed higher interest in F03, which included a sample garden landscape with a sitting pavilion where some residents were chatting and talking. The control group showed additional interest in F02, F11, and F16, which included a sandbox in the hall, a water bar in the lounge area, and a model house of the bedroom, and they formed an overall perception of the exhibition center by focusing on many different elements. As for average gaze duration, both the experimental group and the control group showed a high level of attention to the details of the pictures in F05, F07 and F12. As can be seen from Figure 3, F5 and F7 are both outdoor sample garden landscapes of the exhibition center, while F12 is a conference room used by official and unofficial groups for discussion and negotiation, and the subjects have higher information processing



difficulty and cognitive load on these photos.

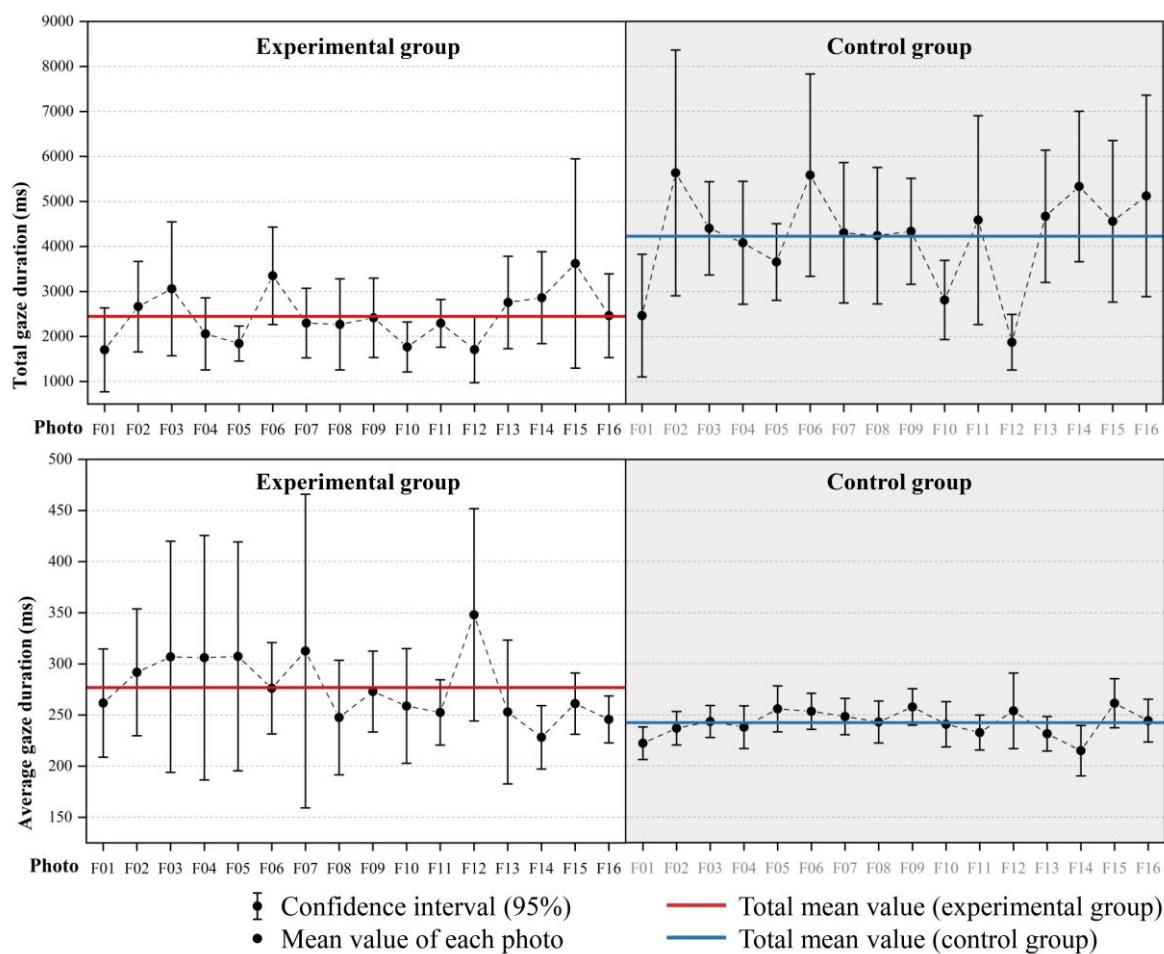


Fig. 4. Total gaze duration and average gaze duration of experimental and control groups for each image.

Tab. 3. Welch anova of eye-tracking data between experimental and control group groups.

Indicators	Groups	Mean	SD	Welch $F$	$p$
Pupil dilation rate	Experimental group	0.2	0.12	53.54	0.000***
	Control group	0.29	0.17		
	Total	0.24	0.15		
Total gaze duration (ms)	Experimental group	2445.89	1935.69	57.7	0.000***
	Control group	4227.99	3076.21		
	Total	3336.94	2717.87		
Number of gaze points	Experimental group	9.36	7.04	74.285	0.000***
	Control group	17.5	12.82		
	Total	13.43	11.11		
Pupil dilation rate (ms)	Experimental group	276.9	140.8	13.363	0.000***
	Control group	242.43	38.99		
	Total	259.67	104.63		

Note: \*\*\*  $p < 0.001$ .

#### 4.1.2 Visual attention

The hotspot map shows the distribution of subjects' attention on the stimulus material, where the red area is the most focused area for browsing and gazing (Fig. 5). It can be seen that the experimental and control groups focused their attention similarly on the content of the pictures. The control group showed larger coverage of the area of attentional focus on F02, which was associated with longer gaze times to get a full picture of Luofeng village. In F13 and F16, subjects focused on food and related slogans for festivals and household items such as bedding, lamps, and windows in the model house, which were related to the past, present, and future activity spaces of the residents. In particular, the experimental group showed stronger attention to the conversation scene in F03 and the sofa in F10 than the control group. Combined with the interviews, it can be seen that these sites are important public spaces for their social interactions during the village renovation, and they are visual symbols that carry the narratives of daily life.

*I'm more impressed with the picture of the couch one because it's so cozy and I often chat with my friends there. (Participant B14, resident of Luofeng village)*



Fig. 5. Hotspot map of experimental and control groups.

### 4.1.3 Emotional response

Using pupil change as a measurement tool for emotional evocation, the pupil dilation rate can reflect the degree of emotional engagement of the subjects when responding to the stimuli. As can be seen from Figure 6, the pupil dilation rate of the control group was generally larger than that of the experimental group, and although they had not physically touched the space of the exhibition center, their own moods and emotions were aroused by viewing the pictures. Comparing the different pictures, the subjects' pupil dilation rate was larger when viewing F02-F05, F09-F12, and F15, including the sand table in the exhibition hall, the outdoor model garden landscape, the open space for consultation, and the returned model house in the living room. Among these images, the sand table is the vision of the spatial layout of the renovation, which carries the residents' future imagination of the place they belong to, and is also the window for non-residents to understand Luofeng village. The model garden area is the future public space for outdoor activities, a combination of natural and artificial elements. The space for leisure and negotiation is both a place for residents to socialize with each other and an important space for residents to play the game of interests with the developer, where residents have rich experience of local practice. The model house satisfies the viewer's imagination of home and stimulates the subject's emotions.

*I think the space (F15) is quite warm and homey, it has an appealing look and feels more Chinese in style, and it's also designed quite nicely. (Participant A1, ordinary citizen)*

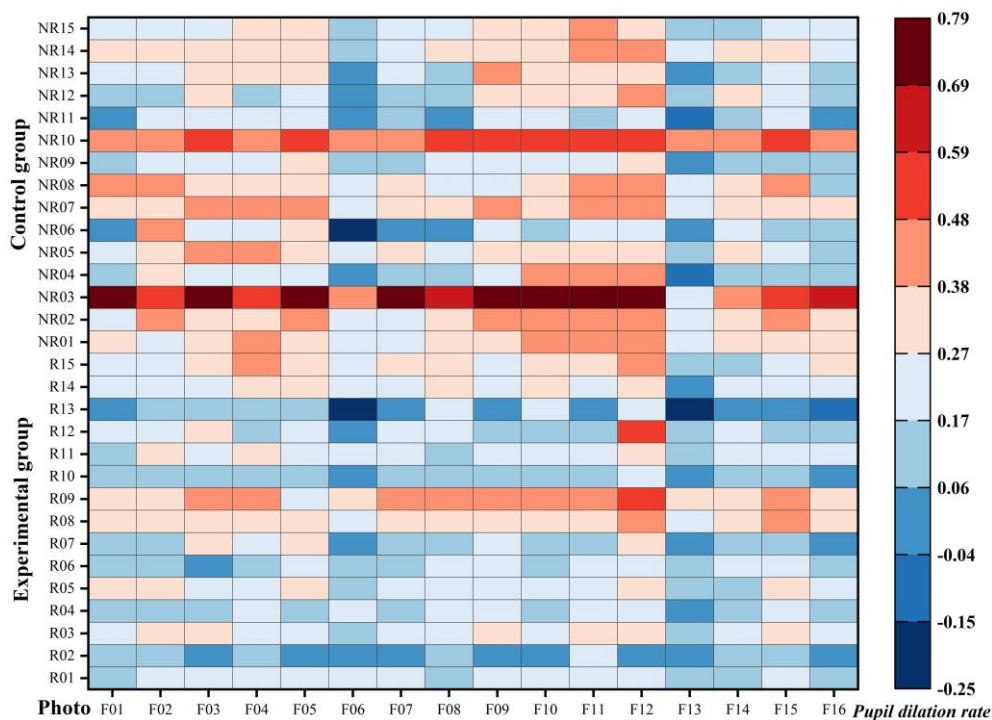


Fig. 6. Heat map of pupil dilation rate (R01-R15 are experimental group, NR01-NR15 are control group).

## 4.2 Creating a "home" atmosphere with the village renovation exhibition center

Emotions are subjective and internal, and consist of a combination of body, psyche, and spatial elements (Lucherini & Hanks, 2020). People connect to particular places through emotions and emotional connections (Duff, 2010). In the renovation process of Luofeng village, affective atmosphere is a product of the interaction of multiple elements. As an intermediate state between objects, such as matters and environments,

and subjects, such as individuals and collectives, the affective atmosphere arises from the encounter and cohesion of relationships, and through the activities of different subjects, people are immersed in the shared realm and manifested in a variety of sensory experiences. Luofeng village, as a community consisting of clans with the same surname, is the "big family" in the villagers' minds. The affective atmosphere of Luofeng village is permeated by the interaction between people and people, and between people and the land, and the renovation of the village is not only the renewal of the physical space, but also the continuation of the memory of the area, which is not a grand narrative and is rooted in the place where daily life takes place. The village renovation exhibition center built within the renovation area is a public space for the public to participate in the village planning, and has become the activity center and spiritual core of the villagers during the renovation period, and is also used to carry out the clan activities held in the village in the past. Using the exhibition center, the planners interpreted the concept of "home" through the construction of a "home" environment, the continuation of "home" activities and the maintenance of "home" by different subjects, attaching an affective atmosphere to the spatial carrier through which villagers express their visions for the future.

#### **4.2.1 Spatial and temporal connections in the physical environment: the environment of the "home"**

The material practices and arrangements in the space are carriers of emotions. For most local villagers, Luofeng village is essentially a mundane space for everyday life. When a cherished place and landscape is threatened by change, the emotions of people and place are significantly aroused, and the process of regulation-based remodeling rather than destructive reconstruction of the material space helps to regenerate the emotions of place (Dechner, 2021). The developer creates a physical environment for public participation by establishing a well-decorated, comfortable and functional exhibition center. Through the spatial and temporal connection of the physical environment, the village renovation exhibition center maintains the "home" space in the villagers' mind, and "home" as a symbol of positive attributes such as pleasure and comfort gives the residents who are disturbed in the process of renovation a sense of security and a sense of belonging.

As a container for storing and overflowing emotions, the exhibition center not only has a recreation of the cultural space of the past, but also provides a space for imagining the future. The hall (F01) of the exhibition center provides a space for public activities and assumes the function of the village activity center in the past, while the sand table (F02) in the middle of the hall presents the spatial layout of the plan for the villagers. The sand table shows the villagers the renovation space in the area of financing (the new buildings constructed by the developer) and the area of resettlement (the buildings to which the villagers will move back), which are not in the same block, and this information conveyance also segregates the conflict between the old and the new communities, and maintains the interpersonal environment of the village in the past. At the same time, the planning scheme displayed on the sand table establishes a historical and cultural protection zone, which is integrated with the villagers' reconstruction area, preserving the historical original appearance of the old village's original ancestral halls and ancient buildings, the academy of classical learning and temples as well as cultural landscapes such as the Xiangxue Park, and publicizing the coordinates of these locations, which awakened the memories of the village, through the exhibition wall and multimedia animation. The outdoor model garden landscape (F03-F09) adopts the design of pavilions, stacked stones and flowing water, which reflects the Lingnan style, and also echoes the Zhong Ancestral Hall complex in the village. As a sample of future living space, the design and furnishings in the model house (F15-F16) reinforce the sense of domesticity of the space, transforming the villagers' imagined living space into a physical entity. As mentioned in the interviews, the design of the model house gives people a sense of warmth

and homey atmosphere, and in this way, visitors no longer understand the transformed home space by abstract floor plans, but rather experience the transformed material conditions through the material entities that are directly in contact with their senses, and have the opportunity to intuitively perceive the future "home". The exhibition center realizes the reproduction of residents' emotions through the material entities in the space, so that it is no longer just a material space, but a place that carries the residents' emotions towards the community and their homes.

*It's very pleasant in here (F16), and the view from the window is beautiful, and it's supposed to be a home space, giving it a familiar feel, and you'll imagine if you'll be able to live in a house like this in the future. There is also no great sense of constraint here, probably related to the color tone, the whole is more on the warm side, it looks warm and airy.* (Participant S1, college student)

#### **4.2.2 Re-encounter and fusion of subjects and objects: the activities of the "home"**

Affective atmosphere requires not only controlling the physical parameters of a built environment, but also giving the physical environment the value of a specific emotional, affective presence (Thibaud, 2015). The relationality of subject and object shifts the creation of atmosphere from a physical space to an emotional or experiential space, giving the physical environment an attachment value. At the practical level of this interaction between the body and the environment, the exhibition center of Luofeng village not only serves as a place to display the transformation process of the village, but also becomes a "living room" for the villagers to maintain their social relations. Chinese villages are intertwined with local kinship relationships formed by blood and geography, and when the original public activity center is transformed, the exhibition center inspires the villagers' family activities and daily activities to continue to take place there, converging individual memories into the village's collective memories, which are generated by the transformation and reappearance of the affective atmosphere (Hitchen, 2021).

Specifically, the villagers took the exhibition center as the public space of the village with centrality during the renovation period, and reproduced the original collective activities here, realizing the re-encounter and integration of the subject and object in the new place. In the eye-tracking experiment, these related pictures also triggered a longer gaze time for the subjects. It was mentioned in the interviews that during the festive season before the renovation, the village committee would organize and hold various festive activities, and nowadays these activities rely on the exhibition center, such as the Mid-Autumn Festival Garden party and the Dragon Boat Festival Rice Dumpling making (F14), which also give residents a positive sense of experience. Embodied in more everyday collective activities, the exhibition center has also become a venue for community birthday parties (F13), tea parties, film screenings, science lectures, and parent-child activities, and has become a dynamic record of village memories. These activities trigger a full-sensory experience of sight, sound, taste, smell and touch in the exhibition center, and also create a warm family atmosphere. Residents have a direct and dynamic experience of the space, and through their physical practice, the exhibition center is transformed from a meaningless geometric space into a place that affects the villagers' sense of home.

*I've been to the activities of the Dragon Boat Festival and Ching Ming Festival organized by the exhibition center, and we (the village) usually organize similar activities, such as those related to the Women's Day and Chung Yeung Festival.* (Participant B10, resident of Luofeng village)

#### **4.2.3 Multi-subjective consultation and emotional overflow: the maintenance of the "home"**

Affective atmosphere is inseparably linked to the activities of residents and professionals in urban and

rural planning processes (Thibaud, 2015). Atmosphere is a shared domain where professional activities and resident practices are closely intertwined, and the creation of an atmosphere in a sustainable way depends on the joint maintenance of the quality of life of residents and developers in the space of their 'home'. In the eye-tracking experiment, subjects showed larger emotional responses to the open negotiation spaces (F10-F12). The most important function of the exhibition center is public participation, and the open space (F10) creates a comfortable environment for residents and planners to communicate and exchange information about the renovation, which promotes the interaction between different subjects and is conducive to the formation of a community of interest in the renovation of the village. The closed meeting room (F12) in the negotiation space is an essential space for residents to negotiate with the developer and the government, in which residents play games with the developer and the government to maximize their own interests. At the same time, the exhibition center is equipped with relevant project interpreters and attendants, providing residents with quality information consulting services and visiting services. The renovation of urban villages presented in the exhibition center is no longer a political and economic goal to be achieved by the government, but a better life for the residents after participating in the renovation. For example, the residents in the interviews suggested to the developer's staff that the design of their homes was unreasonable and that they would like to improve it after visiting the model homes. The process of residents' participation in the remodeling and negotiation process also evolved into a process of contributing to the construction of the community and "home" in the future. The emotional attitude generated by the public participation process overflows and connects to the future renovated space, realizing the continuity of the affective atmosphere.

*I often go to see the show flat, because it is my future home. I have made a suggestion, that is, the faucet in there, I found that it is not reasonably designed, I mentioned this opinion with the staff inside the exhibition center; I believe that they will further improve the situation, because the staff over here have a very nice service attitude, I trust them.* (Participant B11, resident of Luofeng village)

## **5 Conclusions and discussion**

Taking the renovation of Luofeng village in Guangzhou as a case study, this paper uses self-directed photography, eye-tracking experiments, and semi-structured interviews to analyze how the village utilizes the renovation exhibition center, a space for public participation, to create an affective atmosphere for its residents. The results of the Eye-tracking experiment demonstrated that the subjects showed more interest in the water-based model garden landscape, the festival activities in the exhibition center, and the living room of the model house for resettlement; the residents of Luofeng village paid more attention to the visual symbols carrying the narrative of daily life than the non-residents, and were attracted more by the important public space for social interaction during the renovation period of the village; and the sand table in the exhibition hall, the outdoor model garden landscape, the space negotiation, and the living room of the model house for resettlement were more capable of awakening the emotions of the subjects. The exhibition center creates an atmosphere of home through the creation of its own material environment, the embodied practice of residents in it, and the negotiation and interaction between different subjects, realizing the emotional reproduction of the residents, and transforming from a space of mere public participation into a place that carries the residents' emotions about their home and community.

From a global perspective, urban renewal is recognized as a comprehensive and integrated vision and action that leads to the solution of urban problems and seeks to make lasting improvements in the economic, physical, social and environmental conditions of a changing area (Roberts & Sykes, 1999). This process almost always produces winners and losers, and the social power structure, the amount of social capital

available to different groups, the distribution of property rights, and the ability to mobilize will determine who gains what (Cars et al., 2017). In contrast, in the case of real estate development-led urban village transformation, developers, local governments, and new residents are more likely to reap the benefits of urban renewal than those who live there now, and the losses from urban renewal are more likely to fall on the latter (Imrie & Thomas, 1993). Public participation has been introduced into the decision-making process of urban renewal in order to solve the problems and conflicts that arise in urban renewal. Public participation in modern urban planning originated from the British planning system (Taylor, 1998), which encourages the public to express their opinions in urban planning decision-making. Arnstein (1969) criticized the symbolic public participation in the United States at that time and put forward a ladder of citizen participation, which provided a theoretical reference for the evaluation of the public participation system. The International Association for Public Participation (IAPP) explains the decision-making process as an area with five main objectives: informing, consulting, engaging, collaborating, and empowering (Bobbio, 2019). From informing to empowering, the level of public influence on decision-making has gradually increased. It can be observed that public participation, as formed and developed in Western countries, emphasizes more on procedural justice and democracy (legal guarantees, normativity, etc.), but it may also lack the consideration of relevant factors such as economic, political, cultural and social (Jones, 2003).

Compared with the urban village renovation in the past 30 years, the renovation of Luofeng village is relatively successful. The developer accelerated the pace of the transformation by constructing an exhibition center and guiding the residents to actively participate in the process of renovation and demolition, and the developer also made an objective profit from the project. Moreover, during the process of demolition and renovation, there were not many conflicts and struggles among the stakeholders, which is rare in the renovation of China's urban villages in the past. In the case of Luofeng village, we can realize the importance of emotional relationships in shaping social space, and the attention to emotions requires scholars to face methodological and conceptual challenges (Anderson & Smith, 2001). The public participation embodied in the renovation of Luofeng village did not reach a higher position in the ladder of public participation, such as citizen control or delegated power (Arnstein, 1969), but it still achieved the desired effect, with stakeholders such as residents, developers, and the government effectively obtaining their targeted benefits from the village renovation. Thus, when public participation is introduced as a tool in urban renewal policy, the political and social context needs to be fully considered. In the Chinese context, urban renewal focuses more on the atmosphere of "home", and this paper develops a different understanding from a cultural perspective, analyzing how the creation of an affective atmosphere can be used as one of the strategies for urban renewal, which complements the relevant theories and practice models of urban renewal. How to build a public participation system for urban renewal that meets the conditions of different countries is an important issue that needs to be further considered and solved in the future practice of urban planning.

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