



PARTICIPATORY VISUAL PERCEPTION IN CONTEMPORARY PAINTING EXHIBITIONS: AUDIENCE ENGAGEMENT IN REPURPOSED INDUSTRIAL SPACES

Gao Zeyu¹, Suchat Thaothong,² and Mathasit Addok³

Fine and Applied Arts Management
and Faculty of Fine and Applied Arts,
Bangkokthonburi University¹⁻³
China,¹ Thailand²⁻³

Email: 396333836@qq.com¹, suchat_thaothong@hotmail.com²,
Mathasitaddok2@gmail.com³

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Abstract

This study explores the application of participatory visual perception and management strategies in contemporary painting exhibitions held in repurposed industrial spaces in Shenyang, China. The research aims to examine how participatory curatorial models can enhance audience engagement, reinterpret spatial narratives, and activate the historical atmosphere of post-industrial sites through contemporary art. A mixed-methods approach was adopted, combining semi-structured interviews with 11 professionals—contemporary artists, curators, and art managers—with questionnaire surveys targeting exhibition visitors. The interviews provided in-depth insights into curatorial thinking, spatial strategies, and the evolving relationship between artwork, space, and audience. Questionnaires supplemented this by informing the research framework and validating key assumptions on audience behavior and expectations. **The results**



indicate that participatory visual perception allows audiences to shift from passive viewing to active co-creation through physical movement, tactile exploration, and sensory immersion. Experts emphasized that the industrial environment itself—marked by rusted surfaces, machinery remnants, and large-scale architectural features—functions as a narrative agent that deepens emotional resonance and perceptual complexity. Moreover, effective participatory management involves adaptive spatial planning, the use of historical memory, and a flexible curatorial logic that respects both artistic integrity and public involvement. This research proposes a conceptual model for participatory exhibition design rooted in site specificity and audience agency, offering both theoretical insights and practical guidance for transforming cultural spaces in post-industrial cities.

Keywords: Model management; Participatory visual perception; Contemporary painting; Exhibition design

Introduction

Shenyang, located in Liaoning Province, contains a significant number of decommissioned industrial buildings, many of which have undergone spatial transformation into cultural or exhibition venues. These former factory sites, with their preserved architectural textures and spatial scale, have become unique carriers for contemporary visual art presentations. However, despite the spatial distinctiveness of these post-industrial environments, contemporary painting exhibitions held in such sites often rely on conventional curatorial models that privilege formal aesthetics over audience experience (Tuomaala, 2014; Prior, 2005).

Existing literature on exhibition design highlights a global shift toward participatory and multi-sensory strategies that redefine the audience not as passive observers but as active agents in meaning-making (Wang & Xia, 2019; Sancho Querol et al., 2022). Particularly in non-traditional venues such as industrial ruins, the interaction between physical space, historical residue, and visual artwork creates new demands for curatorial frameworks that emphasize embodied perception and spatial dramaturgy. Yet, in many cases, curators and artists continue to prioritize visual display over participatory experience, leading to a

disconnection between the artwork and the site' s spatial and cultural potential (Ponsard & Desmet, 2022).

Furthermore, theoretical models such as Bourdieu' s field theory and stakeholder theory suggest that the authority to interpret art is historically concentrated among institutions and experts, often marginalizing the viewer' s interpretive agency (Bourdieu, 1983; Prior, 2005). This structural condition reinforces top-down exhibition strategies that conflict with the bottom-up potential of participatory curating. As such, there remains a critical gap in research and practice concerning how exhibition management in repurposed industrial spaces can effectively incorporate participatory visual perception into contemporary painting exhibitions.

This study seeks to address that gap by investigating how participatory strategies—both in visual perception and in curatorial planning—can reshape the viewer's engagement in post-industrial art spaces. Through a mixed-method approach combining professional interviews and audience research, the study explores how spatial memory, curatorial methods, and audience behavior intersect to form new modes of interaction within contemporary painting exhibitions.

Research Objectives

1. To study and analyze participatory visual reception in contemporary painting.
2. To synthesize knowledge regarding participatory management in contemporary painting exhibition design within Shenyang' s old factory spaces.
3. To establish participatory management model for contemporary painting exhibition design in Shenyang' s repurposed industrial sites.

Literature Reviews

This chapter reviews key theoretical foundations and recent scholarship on participatory visual perception, curatorial management, and the adaptive reuse of industrial heritage in contemporary painting exhibition design. The review is organized around five core themes: (1) model management, (2) participatory



visual perception, (3) contemporary painting, (4) exhibition design, and (5) industrial heritage spaces.

Model Management: Model management in exhibition contexts integrates both strategic planning and curatorial theory. Bourdieu's field theory (1983) provides a foundational view of cultural production, where institutions, artists, and curators compete within symbolic and economic systems for legitimacy. This power dynamic often affects curatorial autonomy and public access to interpretation. Stakeholder theory further expands this view by emphasizing the role of institutional governance, funding bodies, and public audiences in shaping exhibition agendas (Freeman, 1984; Prior, 2005). Camarero et al. (2019) examine how museum managers' social capital directly influences relationship-building with audiences, donors, and external institutions. Similarly, the integration of relationship marketing into museum practices highlights the need for visitor-oriented strategies in long-term engagement. In operational terms, tools such as SWOT analysis and the PDCA cycle have proven effective in evaluating cultural institution management and adapting to changing audience expectations (Ponsard & Desmet, 2022; Bakar & Rosbi, 2021). These models provide a framework for continuous improvement and help institutions align their curatorial visions with user-centered outcomes.

Participatory Visual Perception: Participatory visual perception challenges the traditional separation between viewer and artwork. Instead of privileging visual contemplation alone, recent scholarship promotes a multi-sensory and interactive understanding of exhibition experiences (Wang & Xia, 2019; Hooper-Greenhill, 2000). This approach aligns with Dewey's theory of aesthetic experience (1934), which sees meaning as co-constructed through active engagement and embodied response. In the context of art exhibitions, the HEI (Human-Exhibition Interaction) model emphasizes feedback loops, open-ended interpretation, and bodily movement as core components of viewer experience (Wang & Xia, 2019). Scholars such as Bitgood (2010) and Falk & Dierking (2013) support the idea that perception in exhibitions is shaped not just by content but also by spatial context, prior knowledge, and social interaction. More recently, participatory perception has expanded to include digital interactivity and immersive environments, enabled by technologies like AR, VR, and responsive sensors (Jenkins, 2006; Gell, 1998). However, Sancho Querol et al. (2022) caution

that participation must go beyond surface-level novelty and be grounded in curatorial intention and shared narrative authority.

Contemporary Painting: Contemporary painting, as an evolving medium, is defined by its openness to hybrid materials, socio-political critique, and conceptual experimentation (Foster, 2004; Elkins, 2003). The role of painting in post-industrial settings reflects both continuity with modernist formalism and a critical response to space, context, and history. From an institutional perspective, the value of painting is not purely aesthetic but socially constructed within curatorial, market, and spatial networks (Heinich, 2000). This aligns with Bourdieu's view of the art field as a competitive space governed by symbolic capital and institutional validation (Bourdieu, 1993). In exhibition contexts, contemporary painting often functions as a vehicle for reactivating spatial memory and encouraging introspective or emotional resonance, particularly when juxtaposed with raw industrial architecture.

Exhibition Design: Exhibition design has developed into a hybrid discipline that merges spatial planning, user experience, and interpretive communication. Simon (2010) advocates for the "participatory museum" model, where audiences are not only recipients but also co-creators of content. This shift requires curators to adopt modular, responsive approaches that accommodate both narrative coherence and visitor agency. Tuomaala (2014) demonstrates how curatorial networks function across institutions and borders, facilitating artist mobility and exhibition realization. In post-industrial spaces, exhibition design must also consider materiality, architectural affordances, and historical layers. Pérez (2022) proposes a smart museum management model that leverages digital tools, sustainability principles, and flexible spatial strategies to support dynamic visitor engagement.

The balance between technological integration and authentic sensory experience is a recurring theme in recent scholarship (Pine & Gilmore, 1999; Carrozzino & Bergamasco, 2010). Studies warn against over-digitization, advocating instead for "technological transparency" where tools support but do not overpower aesthetic or historical content (Sancho Querol et al., 2022).

Industrial Heritage and Space Reuse: The reuse of industrial sites as exhibition venues has become an international trend, enabling cultural institutions to repurpose historically significant yet underutilized spaces. As Hayden (1995) and Nora (1989) have shown, spatial memory and "lieux de mémoire" (sites of memory) become central to how communities relate to history through space. Case studies such as the Zeche Zollverein in Germany and 798 Art District in Beijing show that industrial spaces offer unique material and symbolic conditions for contemporary art display. Scholars like Vale & Warner (2001) and Chang & Lee (2019) highlight how spatial atmosphere, scale, and historic materiality contribute to viewer immersion and participatory engagement. However, curatorial success in such settings depends on balancing historical authenticity with narrative innovation. As Kirshenblatt-Gimblett (1998) notes, heritage spaces must not become static backdrops, but rather active agents in the exhibition dialogue. Exhibition planning in such environments must address the tension between preservation, creative reinterpretation, and audience agency.

Research Methodology

To study and analyze the participation management of contemporary painting exhibition design in the context of the old factory area in Shenyang and internationally.; (2) To synthesize the participation management knowledge from the contemporary painting exhibition design in the old factory area in Shenyang, Liaoning Province.; and (3) To new approach for the participation management perspective from the contemporary painting exhibition design in the old factory area in Shenyang, Liaoning Province. This research was a mixed-methods study that examines the literature on participatory visual perception, model management, and contemporary painting exhibition design in the context of Shenyang's old factory area, Liaoning Province, the People's Republic of China, drawing from books, academic articles, research studies, and relevant policy documents. The sample group comprises 11 contemporary artists, curators, and art managers with experience in participatory exhibition design from 2014 to 2024, utilizing semi-structured interviews for in-depth qualitative insights. Additionally, the sample group includes 200 visitors to contemporary art exhibitions in Shenyang's transformed industrial spaces, employing closed-ended questionnaires as a quantitative data collection instrument to analyze audience participation, sensory experiences, and cultural impact.

Results

The results of the expert interviews provided direct theoretical basis for this research. Through in-depth exchanges with multiple artists, curators, and related practitioners, the study extracted two core concepts: (1) Through situational guidance, a deep interaction between the works and the audience is formed, and "contrast" is an important means for achieving this guidance; (2) Let the architectural space naturally present and reflect the current urban appearance and urban character shaped by history, without excessive narrativeization, so that the audience can perceive the temperament and cultural structure of contemporary cities subconsciously. These two points not only became important reference frameworks for exhibition design, but were also verified in the actual presentation. The following table summarizes the main viewpoints in the expert interviews and the corresponding curatorial reference values:

Topic Area	Frequent Viewpoints	Frequency	Sample Respondents
Participatory Perception (Q1)	Audience shifts to active participation	7	ZHANG H, SU X, ZHANG N
	Multisensory integration (touch, sound, space)	6	MENG X, FAN C, ZHANG S
Exhibition Design (Q2, Q5)	Leverage historical spatial features	7	MENG X, ZHANG X, SONG Y
	Route design following factory workflow	6	ZHANG S, ZHOU T
Spatial Content (Q3, Q4)	Respect industrial authenticity and contrast	7	SU X, ZHANG N, ZHANG H
	Raw textures trigger tactile memory	6	SONG Y, ZHANG S
Stakeholder Roles (Q7)	Provide support without interference	6	YU K, FAN C, ZHANG X
	Curator as framework designer	5	SU X, MENG X
Beyond the Painting (Q8)	Space itself as the core exhibit	8	All respondents

Topic Area	Frequent Viewpoints	Frequency	Sample Respondents
	Multisensory stimuli as participatory triggers	7	ZHANG H, FAN C, SU X

Table1: Summary of Recurring Viewpoints in Expert Interviews.

From the table, it can be seen that the viewpoints of the interviewed experts in terms of venue utilization, audience experience, and urban cultural expression highly align with the curatorial direction of this study. Among them, the proposal of "contrast" provided an important situational strategy for the exhibition, namely, by utilizing the visual and psychological differences between the old appearance and modern display, it triggered emotional fluctuations and curiosity when the audience entered. At the same time, the opinion emphasizing the natural combination of the venue and the works, rather than deliberately highlighting historical symbols, prevented the curatorial process from falling into a single industrial heritage narrative, but instead used the building as a "silent background" for the exchange between the works and the audience. The first concept - Contextual Guidance and Contrast

Many experts in the interview pointed out that an excellent exhibition should not tell the audience how to understand through excessive textual explanations, but should guide the audience to gradually generate their own feelings through spatial atmosphere, work layout, light control, and path rhythm. Especially in the old factory environment of Shenyang, the natural conflict between the external mottled appearance and the exquisite works inside formed a natural contrast, which was not only a visual shock but also a psychological "reminder", making the audience anticipate entering an unconventional artistic situation. In exhibition practice, this concept was embodied through the orderly layout of the opening space and the gradual release of subsequent spaces, allowing the audience to undergo a transformation from passive information reception to active exploration. The second concept - Architectural Space Reflecting Urban Appearance and Urban Character

Experts generally believe that architecture is not only the container of the works, but also a reflection of the current urban appearance and character, and this appearance and character are deeply influenced by historical systems, economic forms, and cultural accumulation. In the context of Shenyang, the

factory space not only presents the institutional order and social division of the industrial era, but also reflects a complex urban temperament: depression and pride, regulation and freedom, knowledge and rigidity, entangled in a state. This contradictory structure is manifested not only as a reliance on collective identity and the instinct to find "small freedom" in the collective, but also as a fixed pattern formed by historical systems in ideological concepts. This "tense" characteristic, full of power and tension, provides a unique context for artistic creation and audience perception.

In the exhibition, this trait was not presented through straightforward historical narration, but was perceived by the audience subconsciously through the relationship between works and space, the rhythm changes in layout, and the correspondence of materials and light. For example, the regular and calm display of works and the open, free, and even slightly chaotic interactive areas formed a metaphorical contrast between institution and freedom, allowing the audience to touch this trait simultaneously on the physical and psychological levels. As the interviewees said, this context enables the audience to feel the unique heavy and lively urban character of Shenyang while walking freely. In summary, the core concepts provided by the expert interviews have been fully verified in practice. The contextual guidance strategy effectively enhanced the audience's participation and autonomy, while the "urban character" attribute of the architectural space endowed the exhibition with a deeper cultural background, allowing the audience to naturally enter into a dialogue with the urban temperament while appreciating the works. This curatorial approach ensured the dominant position of the works, while using space and atmosphere to construct a multi-level experience system, achieving dynamic interaction between art, the venue, and the audience.

Discussions

The findings of this study contribute to an evolving understanding of how participatory practices are reshaping both the design and management of contemporary art exhibitions in post-industrial spaces.

Rethinking the Role of the Audience: Traditional exhibition formats that rely solely on visual engagement are increasingly insufficient in meeting the

perceptual expectations of today's audiences. The audience now demands agency, emotional connection, and interpretive freedom. This shift aligns with Wang and Xia's (2019) "Human-Exhibition Interaction" model, which prioritizes experiential immersion and communication feedback mechanisms.

The integration of multisensory strategies—touchable surfaces, ambient soundscapes, spatial tension—was shown to significantly elevate perceptual depth. These align with existing research suggesting that bodily engagement and environmental responsiveness reinforce cognitive and emotional retention.

Industrial Spaces as Narrative Mediums: Rather than serving merely as neutral containers, the industrial sites themselves became narrative agents. The "space as exhibit" principle repeatedly emerged as a key insight. This supports prior literature in spatial theory and adaptive reuse, which emphasizes that historical environments can enhance meaning-making through material authenticity and architectural memory.

Moreover, contrast between old and new—raw space versus refined art—was highlighted as a strategy that produces cognitive dissonance, prompting deeper reflection among viewers. This reflects broader trends in site-specific art and industrial heritage valorization.

Toward Participatory Curatorial Models

The study confirms that effective participatory exhibitions are built upon cross-disciplinary collaboration. Curators must adopt the role of mediators—balancing spatial logic, audience needs, and artistic intent. Furthermore, stakeholder engagement must extend beyond passive funding to include mechanisms for dialogue, feedback, and co-creation.

Digital feedback systems, such as real-time surveys and AR-enhanced guides, proved valuable in adapting exhibition design based on audience input. These tools operationalize the PDCA cycle in curatorial practice, echoing management models proposed in museum literature (e.g., Pérez, 2022).

Avoiding the "Nostalgia Trap": One of the challenges identified was the risk of reducing industrial history to a sentimental narrative. Several respondents emphasized the need for critical reflection over aesthetic romanticization. This was achieved by juxtaposing personal memory with contemporary issues, a method that mirrors curatorial strategies in post-socialist regions.

This diagram illustrates the triadic relationship among Artwork, Audience, and Space within the context of participatory visual perception. Each element

plays an active role in shaping perceptual experiences:

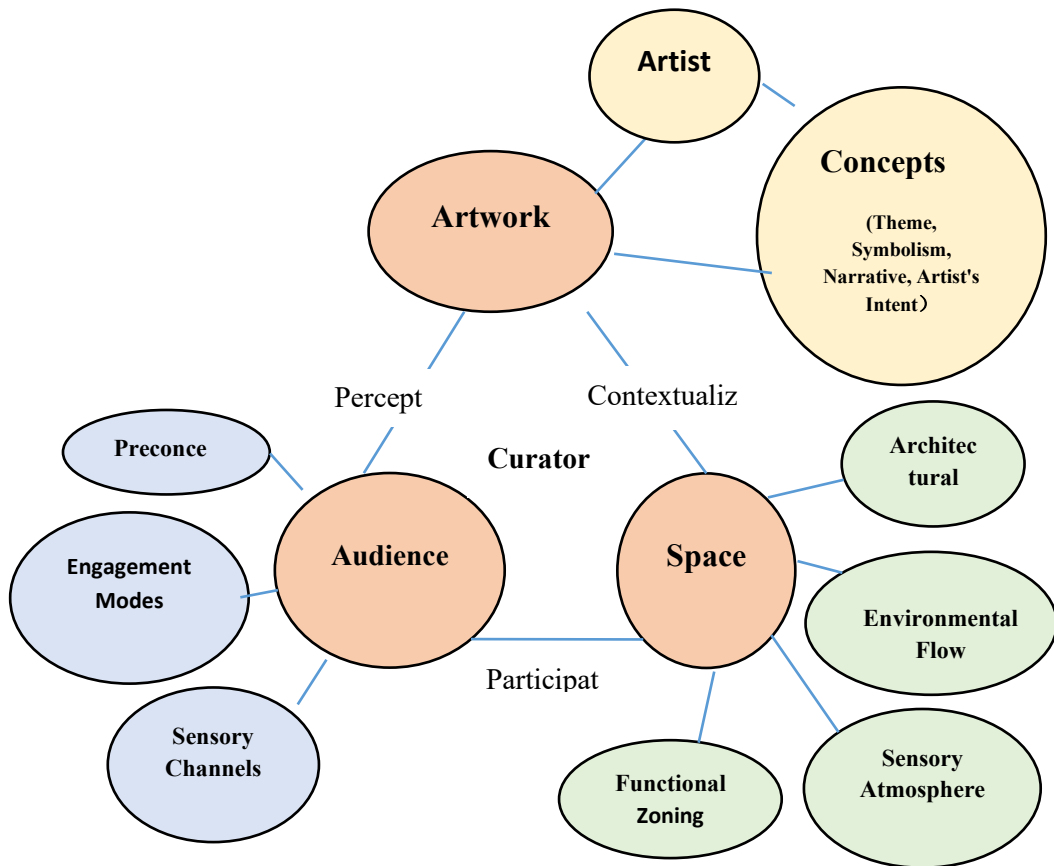


Figure 1: Triadic Framework of Participatory Visual Perception in Industrial Art Exhibitions.

New Knowledges

This study generates new knowledge by synthesizing participatory visual perception theory, curatorial practice, and industrial spatial design into an integrated exhibition framework. The contributions span three dimensions: conceptual, managerial, and experiential.

Conceptual Knowledge: Triadic Participatory Perception

The study establishes a triadic participatory perception model that redefines how viewers engage with art. It emphasizes a fluid relationship among viewer, artwork, and space, where interaction is not merely visual but also bodily and environmental. This approach challenges the passive observer model and foregrounds the co-construction of meaning through movement, spatial friction, and emotional feedback (Wang & Xia, 2019; Bitgood, 2010).

Managerial Knowledge: Adaptive Curatorial Roles

Curators are repositioned as intermediaries and narrative designers rather than mere organizers. Drawing on PDCA cycles and stakeholder theory (Ponsard & Desmet, 2022; Camarero et al., 2019), the research proposes a flexible planning model that responds to real-time visitor feedback, spatial features, and historical specificity. Curators are encouraged to initiate dramaturgical sequences, where pacing, lighting, and spatial density shape the affective arc of the exhibition.

Experiential Knowledge: Material Tension and Spatial Contrast

One of the key findings from expert interviews—particularly with artist Song Yuanyuan—is the aesthetic and psychological power of contrast ("反差感") between the old, decaying industrial exterior and the high-concept, sophisticated artworks displayed inside. This contrast not only attracts attention but also amplifies emotional resonance, making the viewer more aware of time, memory, and transformation.

In Song's words, "the rusted walls and fractured machinery remain unchanged, but what's inside is extremely refined, sometimes even luxurious—this tension itself is a form of perception." This spatial incongruity enhances the participatory experience by inviting viewers to mentally reconcile the visible past with the speculative future embedded in the artworks. The industrial materiality, instead of being erased, becomes a foil that intensifies the viewer's awareness of content, context, and self.

Table 3: Three-Dimensional Knowledge Outcomes of the Study

Knowledge Dimension	Key Contribution	Application in Exhibition Design
Conceptual	Triadic Participatory Perception (Viewer–Artwork–Space Interaction)	Design spatial flows that evoke bodily and interpretive movement
Managerial	Adaptive Curator Roles + PDCA + Stakeholder Integration	Use responsive planning to co-create narratives and experiences
Experiential	Material Contrast + Tactile Memory + Spatial Tension	Leverage contrast between decayed architecture and refined artworks to deepen emotional and perceptual impact

Conclusions

This study investigated how participatory visual perception and participatory management strategies can be effectively integrated into contemporary painting exhibitions within repurposed industrial spaces in Shenyang. Through qualitative interviews and quantitative visitor surveys, several key insights emerged. The research confirms that industrial heritage sites provide more than physical space—they function as perceptual and narrative agents. When exhibitions adopt multisensory elements and non-linear spatial designs, audience engagement is significantly enhanced. Furthermore, curatorial strategies that prioritize flexibility, feedback, and community participation contribute to sustainable and meaningful visitor experiences. These findings indicate a paradigm shift in exhibition practice: from object-centered display to audience-centered interaction, and from static presentation to iterative, co-created environments. Participatory exhibition design, when rooted in spatial authenticity and supported by responsive management, can transform passive observation into embodied, collaborative interpretation.

Recommendations

This study suggests that in future exhibition planning, curators should fully utilize the strategy of situational guidance. Through means such as spatial layout, changes in light and shadow, and contrast in materials, they should create a viewing path with a sense of hierarchy and immersion, enabling the audience to gradually enter the context of the works without relying on explicit narratives.

In buildings with historical traces, the contrast between the exterior and the interior can become an important sensory trigger, stimulating the audience's desire to explore and participation.

At the same time, while maintaining the subjectivity of the works, the exhibition should present the current urban appearance and urban character shaped by history through the interaction between the works and the space, allowing the traits such as "repression and pride", "norms and freedom", and "knowledge and rigidity" to naturally emerge in the viewing experience.

The flexible transformation of the site and the distribution of space should also serve this experience, preserve the structured sense of order while provide opportunities for the audience to freely explore and interact, thereby establishing a deeper dialogue between the works, the space, and the audience.

Suggestions

Future research could extend this approach to comparative studies across different cities and spatial types, exploring how distinctive urban characters influence exhibition experiences and audience perception. It is also recommended to focus on the long-term effects of audience perception by conducting not only immediate feedback collection but also follow-up studies after exhibitions, in order to assess the sustained impact of curatorial strategies. Furthermore, fostering cross-disciplinary collaboration between curators, architects, urban researchers, and artists is crucial. Integrating insights from urban planning, sociology, and cultural studies into exhibition design can facilitate a deeper fusion between artistic presentation and urban culture, continuously exploring the potential of situational guidance and spatial engagement in diverse contexts.

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