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South China University of Technology

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基于临时都市主义的都灵奥运村更新研究

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Regenerating Olympic Village through Temporary Urbanism: A Case Study of Turin Olympic Village

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摘　要

大型体育赛事遗产，尤其是奥运村，在赛后常因“高维护成本”与“低效益回报”而陷入再利用困境。如何有效激活这类空间，并促使其有机融入城市日常肌理，已成为国际学界与实践领域共同关注的核心议题。针对这一挑战，本文引入“临时都市主义”作为理论工具与实践路径，系统探索低成本与灵活的路径，以推动此类空间的可持续再利用。

本文的核心工作在于建立了一套完整的、可操作的“基于原型借鉴的奥运村临时性更新方法论”。该方法论包含五个递进环节：1）类型识别——基于对历届 56 个夏季及冬季奥运会奥运村案例的系统性编码与统计分析，聚焦其赛后临时性再利用模式，归纳出 4 种典型类型，为后续改造设计提供基础性框架；2）问题诊断——提出涵盖文化、活动、社会服务、商业与生态环境的五维诊断框架；3）介入类型——据此提出精准匹配问题类型的五类临时策略介入方向；4）再生策略——通过对全球 115 个临时性城市实践案例的系统分析，从装置类型、氛围体验等维度提炼出契合上述五类介入方向的具体策略原型，为奥运村的临时性改造提供可拓展的设计内容支撑；5）后续发展——归纳出散点复制等六种临时干预后的后续发展模式。

为验证所构建方法论的有效性与可操作性，本文选取具有突出文化遗产价值且现状复杂的意大利都灵 2006 年冬奥村作为实证研究对象。基于深入的场地现状与人群需求调研，本研究将前述的方法论系统应用于具体设计实践：首先，依据归纳的“奥运村类型”，识别基地所属类型，并以此作为基础设计框架；继而根据人群需求判断场地功能缺陷，在方案中整合商业、文化、生态与社会服务等多重维度；最终形成一系列临时性干预方案，并进一步探讨了由临时介入向长期可持续发展转化的路径与可能性。

本研究的意义在于：理论上，拓展了临时都市主义在大型事件遗产再生领域的应用边界，深化了对奥运村临时性再利用类型的学理认知；实践上，所构建的系统性方法论与丰富的策略原型库，为未来奥运村及其他大型事件遗产的低成本、高弹性的更新提供了可借鉴的工具箱与实施路径。此外，通过对都灵奥运村信息的系统梳理，为后续学者开展深入研究奠定了扎实的基础。本研究的创新性主要体现在：首次将临时都市主义系统性地引入奥运村更新研究，并创造性地构建了从宏观类型学分析到微观设计策略生成的完整闭环方法论体系；同时，通过大规模的案例数据统计与聚类分析，对历届奥运村进行了科学、清晰的类型化梳理，为该领域的精细化研究奠定了坚实基础。

关键词：临时都市主义；奥运村更新；大型体育赛事遗产；都灵冬奥会

Astract

The legacy of major sporting events, particularly Olympic Villages, often encounters post-event reuse dilemmas due to "high maintenance costs" and "low benefit returns." How to effectively activate such spaces and organically integrate them into the daily urban fabric has become a core issue of common concern in both international academia and practice. In response to this challenge, this paper introduces "temporary urbanism" as a theoretical tool and practical pathway, systematically exploring low-cost and flexible approaches to promote the sustainable reuse of such spaces.

The core contribution of this paper lies in establishing a comprehensive and operational "prototype-based temporary renewal methodology for Olympic Villages." This methodology comprises five progressive stages: 1) Type Identification—based on systematic coding and statistical analysis of 56 Summer and Winter Olympic Village cases, focusing on their post-event temporary reuse patterns, four typical types are summarized, providing a foundational framework for subsequent renovation design; 2) Problem Diagnosis—proposing a five-dimensional diagnostic framework encompassing culture, activities, social services, commerce, and ecological environment; 3) Intervention Types—accordingly proposing five categories of temporary strategy intervention directions that precisely match problem types; 4) Regeneration Strategies—through systematic analysis of 115 global temporary urban practice cases, specific strategy prototypes aligned with the aforementioned five intervention directions are extracted from dimensions such as installation types and atmospheric experiences, providing expandable design content support for temporary renovation of Olympic Villages; 5) Subsequent Development—summarizing six subsequent development models following temporary interventions, such as scattered replication.

To verify the effectiveness and operability of the constructed methodology, this study selects the 2006 Turin Winter Olympic Village in Italy, which possesses prominent cultural heritage value and complex current conditions, as the empirical research object. Based on in-depth site condition and population demand investigations, this research systematically applies the aforementioned methodology to specific design practice: first, according to the summarized "Olympic Village types," the base type is identified and used as the foundational design framework; subsequently, based on population demand assessment, functional deficiencies of the site are determined, and multiple dimensions including commerce, culture, ecology, and social services are integrated into the proposal; ultimately forming a series of

temporary intervention schemes, while further exploring pathways and possibilities for transformation from temporary intervention to long-term sustainable development.

The significance of this research lies in: theoretically, expanding the application boundaries of temporary urbanism in the field of major event legacy regeneration, and deepening scholarly understanding of Olympic Village temporary reuse typologies; practically, the constructed systematic methodology and rich repository of strategy prototypes provide a reference toolbox and implementation pathways for low-cost, highly flexible renewal of future Olympic Villages and other major event legacies. Additionally, through systematic organization of Turin Olympic Village information, a solid foundation is established for subsequent scholars to conduct in-depth research.

The innovation of this research is primarily manifested in: first systematically introducing temporary urbanism into Olympic Village renewal research, and creatively constructing a complete closed-loop methodology system from macro typological analysis to micro design strategy generation; simultaneously, through large-scale case data statistics and cluster analysis, scientific and clear typological organization of historical Olympic Villages is achieved, establishing a solid foundation for refined research in this field.

Keywords: Temporary urbanism; Olympic Village renewal; Major sporting events legacy; 2006 Turin Winter Olympics

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Chapter1 Introduction

1.1 Research Background and Significance

Olympic studies constitute a significant research topic in the field of sports humanities and social sciences. The Olympic Village represents a crucial component of the Olympic Movement, playing a pivotal role and holding substantial value in both modern Olympic sports and contemporary urban contexts. Since the inaugural Olympic Games in 1896, the modern Olympic Movement has spanned over a century, while the construction of Olympic Villages boasts nearly 80 years of history. From Baron Pierre de Coubertin's initial conception of the Olympic Village to its integration into host cities' medium- and long-term planning blueprints, the Olympic Village has evolved from non-existence to maturity, growing alongside the modern Olympic Movement. Examining the historical trajectory of Olympic Village construction reveals a distinct transformation process in planning and design: "simplicity—standardization—luxury—sustainability"[1]. Particularly in recent years, Olympic Villages are undergoing a critical transition from "luxury" toward "simplicity and sustainability." For instance, the Paris 2024 Olympics extensively incorporates solar panels in its planning to reduce costs, minimize carbon emissions, and ensure sustainable post-event utilization. This transformation signifies the Olympic Village's evolution from a "one-time event venue" to "everyday urban space." The underlying essence of this shift reflects fundamental challenges faced by Olympic Villages in the post-event phase: functional decline, abandonment, or market-driven sales leading to the erosion of social value. Today, post-event spatial reuse has emerged as a focal point in international Olympic legacy research. How to avoid the "short-term glory" and "long-term vacancy" of Olympic Villages has become an urgent practical issue requiring immediate response[2].

Concurrently, within the contemporary urban renewal context, temporary design has emerged as a significant trend. Technological innovation, information flow, and transformations in social lifestyles necessitate that urban spatial structures possess greater flexibility to adapt to complex and dynamic urban environments. Particularly in spatial renewal, temporary spatial utilization strategies, characterized by their flexibility, diversity, and innovativeness, are becoming emerging tools for redefining spatial production. These strategies disrupt established spatial development orders, advocating for small-scale, short-cycle spatial adjustments to stimulate social vitality. Through "bottom-up" approaches, they emphasize the most authentic living demands and renovation aspirations of citizen communities, exhibiting strong timeliness, low cost, and flexibility, while demonstrating a

certain degree of "authenticity." Additionally, they prioritize public participation and social reintegration, making them exceptionally suitable for regeneration research of Olympic Village spaces that suffer from "post-event idleness" and "disconnection from everyday spaces."

Therefore, research on Olympic Villages based on temporary urbanism not only aligns with the contemporary trend of Olympic Villages transitioning from "luxury" to "sustainable development," but also provides methodological insights for the regeneration of mega-event legacy spaces. The significance of this research is primarily manifested in two aspects:

First, theoretical significance—expanding the application scope of temporary urbanism in mega-event spatial reuse research while deepening theoretical understanding of Olympic Villages; second, practical significance—providing reference frameworks for renewal strategies of post-event spaces such as Olympic Villages, promoting sustainable development of urban renewal and social vitality reconstruction.

1.2 Research Questions

Against the backdrop of the deepening global sustainable development agenda, the reuse of mega-event legacies—particularly Olympic Villages—continues to face severe challenges. Although academia and practice have proposed various reuse models (such as transformation into residential areas or public sports facilities), these solutions often fail to effectively address the structural contradiction between "high maintenance costs" and "low benefit returns." Consequently, numerous Olympic Villages fall into prolonged idleness or even abandonment after events, resulting in resource waste and spatial decay.

Existing research predominantly focuses on permanent functional transformation pathways, while studies on how to effectively activate idle spaces with unclear functional positioning or in transitional phases at low cost remain insufficient. In this context, the flexibility, low cost, and rapid response urban intervention concepts advocated by "Temporary Urbanism" provide new theoretical perspectives and practical possibilities for resolving the aforementioned dilemmas.

Therefore, the core research question of this study can be formulated as: Under the practical constraints of high maintenance costs and low reuse efficiency, how can a systematic, operational, low-cost, and highly flexible temporary renewal methodology be constructed based on "Temporary Urbanism" theory to achieve effective activation and sustainable transition of Olympic Villages and other mega-event legacies?

1.3 Research Site and Selection Rationale

In urban renewal and Olympic legacy research, clarifying the research site and selection rationale constitutes an essential prerequisite for delineating research questions. By defining specific objects, researchers can not only conduct in-depth analysis of their developmental evolution within particular historical contexts and policy frameworks but also facilitate understanding of the spatial structures, social functions, and governance logics they embody. This section will first introduce the specific research site selected for this study—the Ex-MOI (Mercato Ortofrutticolo all'Ingrosso, former Mercati Generali) plot within the Olympic Village area of the 2006 Turin Winter Olympics in Italy—to establish the foundation for subsequent analysis.

1.3.1 Research Site Introduction

This study focuses on the Olympic Village area constructed for the 2006 Turin Winter Olympics in Italy, encompassing two main components: the former wholesale market site (Ex-MOI Mercati Generali) and the accompanying residential district. Ex-MOI Mercati Generali represents an industrial heritage building complex located in southern Turin, Italy. Construction commenced at the end of August 1932 under the direction of engineers Del Duca and Miccone, along with architect Umberto Cuzzi[3]. The site formerly served as the center of the wholesale market, with its massive warehouses and industrial buildings reflecting the architectural styles and urban planning approaches of that era.

Subsequently, Turin entered the historical context of "post-industrial urban transformation," as the former wholesale market area belonged to a typical traditional industrial belt. It was subsequently selected as the Olympic Village site for the 2006 Winter Olympics with the aim of promoting the area's transformation process. During the Olympic period, this area was temporarily planned as a concentrated residential zone for athletes and event-related staff, equipped with clustered residential buildings, service facilities, and open spaces. However, after the conclusion of the Olympics, the originally planned "legacy reuse" phase failed to be effectively implemented due to various reasons, resulting in the "former Olympic Village" area becoming chaotic and dilapidated.

1.3.2 Selection Rationale

Based on this background, the selection of this site as the research object is grounded in several core considerations:

(1) Possessing Multiple Research Values

The Ex-MOI area housing the Olympic Village of the 2006 Turin Winter Olympics not only serves as a venue for Olympic events and a testing ground for post-event reuse but also exhibits significant composite spatial characteristics, possessing multiple research values.

First, from the perspective of the Olympic Village, the Ex-MOI area embodies the core proposition of the Olympic Movement transitioning from "temporary use" to "post-event utilization." As the residential zone for athletes during the 2006 Winter Olympics, it functioned as a node where humans, resources, and space converged at high density during the Games. Meanwhile, its post-event idleness and reuse challenges reflect the universal dilemmas of contemporary Olympic Village management.

Second, at the heritage value level, the area not only carries the identity of typical Olympic heritage but also possesses cultural heritage attributes, demonstrating multiple values. According to the description by the Italian Cultural Heritage Regulatory Authority (Vincoli della Soprintendenza Beni Culturali), the Ex-MOI (Ex-Mercati Generali Ortofrutticoli) building complex served as a former fruit and vegetable wholesale market and warehouse after 1933[4], and is protected under Law 42/2004, which explicitly designates it as part of the cultural heritage[5]. Thus, this area not only possesses historical value but also holds authoritative cultural recognition, with its spatial value transcending single-use dimensions and exhibiting high historicity and cultural significance. Furthermore, according to the definition of industrial heritage in *The Nizhny Tagil Charter*[6], the Ex-MOI area with its warehouse spaces presents "industrial heritage" physical evidence, forming a unique "industrial-Olympic" dual-layered spatial characteristic that distinguishes it among numerous Olympic Village remnants.

Third, from the perspective of spatial potential, the overall spatial structure of this area remains well-preserved, retaining numerous residual spaces with historical significance and reuse potential. For example, the open spaces formed between Olympic Village residential areas, the marginal spaces surrounding and within the former market buildings, and the public spaces enclosed by warehouse structures all bear historical traces of both Olympic and industrial heritage, possessing possibilities for "low-intervention activation."

In summary, the typical dilemmas, multiple values, and substantial spatial utilization potential of the Ex-MOI site endow it with high research value. Selecting this location as the research object not only deepens understanding of temporary regeneration of Olympic Village spaces but also provides verifiable practical pathways for exploring reuse models of mega-event heritage sites and urban renewal strategies.

(2) Prominent Site Issues

Although the Ex-MOI plot selected for this study (the former Turin 2006 Winter Olympic Village) possesses certain heritage value and green infrastructure foundations, it has remained in a state of functional vacancy and spatial inactivation for an extended period following the conclusion of the Games. This condition has exposed a series of structural problems, serving as a significant motivation for advancing this research.

First, at the architectural level, the government plans to restore the buildings to a state close to their original design, enabling them to flexibly adapt to different future functions and usage requirements. The City of Turin, in collaboration with the Metropolitan City of Turin, Piedmont Region, Diocese of Turin, Prefecture of Turin, and Compagnia di San Paolo, jointly launched the M.O.I. (Migrants and Inclusion Opportunity) project in 2017. The project aims to gradually clear refugees through training and resettlement programs, restore normal building usage, and propose a "strategic renewal" plan for reutilizing the southern Olympic Village area, with phased reopening expected to commence in 2019 (Figure 1-1). This strategy conceptually emphasizes preserving historical traces while enhancing spatial flexibility, demonstrating a certain degree of foresight. However, despite the publication of official documents several years ago, actual implementation progress has been minimal, facing challenges such as prolonged restoration project timelines. After 2020, the former market area even fell into a "ghost town" state following the clearance of illegal occupants. Consequently, this area has become an interstitial zone between policy and reality. Furthermore, due to upper-level policy control (albeit somewhat ambiguous), the plot cannot be redesigned or renovated until relevant departments take the next concrete action, resulting in the site's current "forced vacancy" as a temporary condition. Therefore, despite the physical preservation of the main buildings, their reuse process remains extremely slow, with significantly insufficient overall vitality. Internal spaces suffer from low utilization rates and poor accessibility, making it difficult to form effective public activity carriers, presenting the typical heritage dilemma of "physical presence but functional silence."

Second, at the landscape and greening level, although the site possesses a certain foundation of greenery, the overall layout exhibits typical characteristics of "emphasizing quantity over quality." A large amount of vegetation has been densely planted in localized areas with scattered distribution, failing to form organic connections with buildings, roads, and public activity spaces. This results in low utilization efficiency of green spaces and constitutes structural waste of spatial resources. More critically, this irrational greening configuration weakens their intended ecological regulation functions: for example, failing to

effectively construct a continuous shading system, making it difficult to fulfill environmental services such as cooling and dust reduction. Additionally, the neglect of human-scale design has led to green spaces lacking accessibility and interactivity, unable to meet residents' daily needs for rest, socialization, and activities. Ultimately, the greening has degenerated into formalistic landscapes "for viewing only," deviating from the essential goal of urban greening —namely, improving living environment quality and promoting sustainable development.

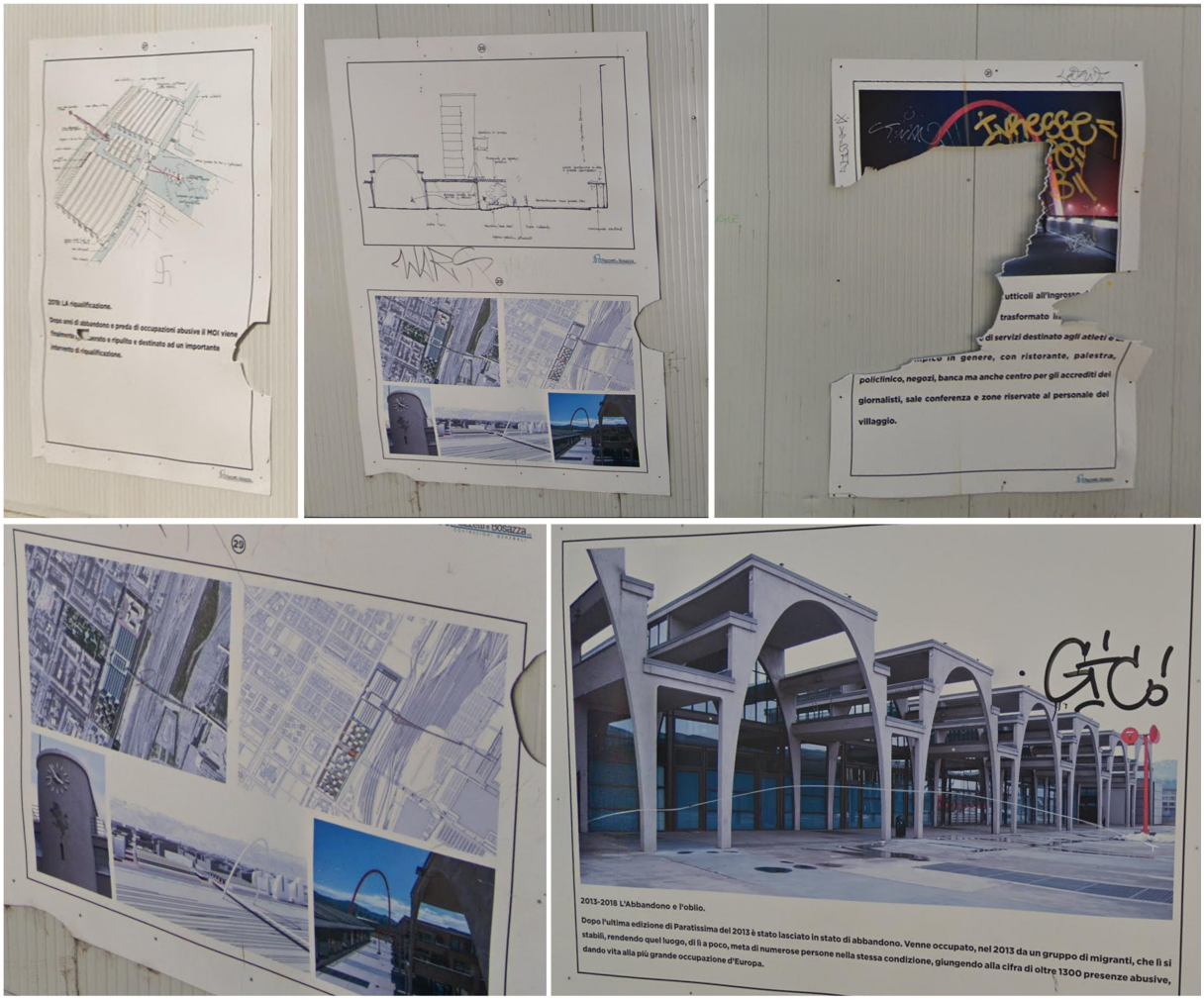


Figure 1-1 Official document posted on the Olympic Village fence

Source: Photographed by the author

(3) Suitability for Applying Temporary Strategies

In response to the site's prolonged neglect and functional dormancy, "Temporary Urbanism" offers a highly promising intervention pathway. This concept advocates bottom-up experimental design approaches, emphasizing the activation and reuse of vacant spaces through flexible, low-cost, and reversible methods under the premise of "minimal intervention." Its inherent flexibility, variability, and time sensitivity precisely align with the current challenges faced by the Ex-MOI plot — namely, the preservation of architectural

heritage alongside functional deficiency and underutilized spatial resources. Therefore, Temporary Urbanism not only circumvents bottlenecks inherent in traditional renewal approaches — such as lengthy timelines, high costs, and rigid decision-making — but also injects new functional vitality into Olympic Village land that would otherwise remain stagnant, creating possibilities for spatial reuse.

Furthermore, regarding the site's green infrastructure lacking comprehensive planning and exhibiting low ecological efficacy, Temporary Urbanism also demonstrates unique advantages. Its advocated methodologies can reconstruct the spatial organization and usage patterns of green spaces through flexible temporary installations (such as modular planting units, mobile landscape devices, seasonal activity nodes, etc.) without compromising existing structures. This not only enhances the quality and accessibility of green spaces and strengthens their connections with buildings, roads, and public activity areas, but also enables the testing of different ecological configuration models through short-term pilot projects, exploring sustainable long-term development pathways. Consequently, this facilitates the transformation from "formalistic greening" to "functional ecological spaces."

In summary, compared to other Olympic Villages predominantly updated through large-scale reconstruction or market-driven development, the Turin Olympic Village exhibits heightened complexity and typicality: it possesses both historical architectural heritage and underutilized green resources; it has government-led restoration plans yet faces implementation delays. This state of "physical presence but functional inactivation" renders it an ideal case for testing the application efficacy of Temporary Urbanism in complex Olympic spaces. The selection of this site for the present study stems precisely from its practical feasibility and exemplary value in translating theory into practice.

(4) Temporal Resonance and Regional Relevance

Selecting this plot as the empirical object of the present study carries distinct contemporary significance and temporal relevance. In 2026, Italy will once again host the Olympic Games — the Milan-Cortina d'Ampezzo Winter Olympics. This marks Italy's third time hosting the Winter Olympics, following Cortina d'Ampezzo in 1956 and Turin in 2006, and represents a return to hosting this premier global winter sports event after exactly two decades. Against this backdrop, revisiting and thoroughly examining the post-Games evolution trajectory of Italy's previous Winter Olympics heritage—the Turin Olympic Village — not only holds historical comparative value but also demonstrates strong contemporary relevance: as Milan is currently strategizing sustainable planning for the upcoming Olympic

legacy, systematic reflection on the Turin case can provide valuable experiential insights and strategic implications.

As a typical Olympic heritage site, the Turin Olympic Village has long faced post-Games challenges such as functional vacancy and difficulties in social integration, establishing itself as a complex renewal case widely recognized in international academia. By taking this as the entry point, the present study is not only grounded in Italy's indigenous Olympic practice trajectory but also resonates with the 2026 Milan Winter Olympics' hosting strategy of "people-centered, sustainable, and low-cost" approaches. This enables the research topic to form an organic closed loop across three dimensions — temporal (2006 – 2026), spatial (north-south linkage within Italy), and thematic (Olympic heritage regeneration) — fully demonstrating the study's timeliness, regional relevance, and practical foresight.

1.4 Research Methodology

This section adopts a research methodology that integrates macro and micro approaches. At the macro level, the focus is on case induction and theoretical refinement, aiming to construct a methodological prototype with transferability. At the micro level, the research is grounded in field investigations and user needs analysis, promoting the localized translation and practical implementation of strategies within specific sites. These two approaches mutually support and collaboratively advance each other, jointly forming a complete research cycle from "general patterns" to "specific practice."

1.4.1 Typological Analysis

The macro-level research takes representative Olympic Villages and temporary urban practices from a global perspective as research objects. Through systematic case analysis, it extracts transferable design strategy prototypes and operational paradigms.

(1) Prototypes of Temporary Reuse for Olympic Villages

First, this study conducts literature review and structured data coding on a total of 56 Olympic Village cases from both Summer and Winter Olympic Games throughout history. The focus is on their site selection, post-Games utilization patterns, and types of temporary strategies. Based on this analysis, four typical types of temporary reuse are identified. This typological outcome not only provides a reference for positioning the Ex-MOI plot within the Olympic heritage spectrum but also establishes a foundational framework for subsequent renovation design at the levels of overall spatial structure and functional layout.

(2) Prototypes of Temporary Design Strategies

Second, through systematic literature review, the core concepts, theoretical frameworks, and developmental trajectories of Temporary Urbanism are clarified. Building upon this foundation, through systematic analysis of 115 temporary urban practice projects worldwide (such as temporary markets, art festivals, pop-up parks, etc.), this study extracts strategy prototypes for temporary design across five dimensions—culture, activities, social services, economy, and ecological environment—from perspectives of spatial organization and installation types. These strategies serve as "transferable design prototypes," providing rich and operational content support for Olympic Village renewal.

Based on this foundation, this study constructs an "skeleton-content" integration model: the reuse patterns of Olympic Villages with types similar to the Ex-MOI plot serve as the design skeleton (i.e., reference paradigms for spatial structure and functional organization), while the aforementioned five categories of temporary strategies serve as design content, precisely injected into specific spatial nodes. Through this integration logic, the Ex-MOI plot can achieve low-cost, highly flexible, and strongly participatory renewal objectives under the guidance of Temporary Urbanism principles—namely, by optimizing temporary planning to unlock the potential of long-neglected spaces, gradually alleviating problems such as inappropriate greening configurations and resource waste, thereby exploring a sustainable regeneration pathway that balances social vitality, ecological benefits, and cultural continuity.

1.4.2 Field Survey Method

Micro-level research focuses on the specific spatial conditions and user needs of the Ex-MOI plot, comprehensively employing methods such as questionnaire surveys, literature research, and field investigations to systematically analyze the site's current conditions. The aim is to promote the precise translation and effective implementation of macro strategies within the local context.

(1) Site Condition Investigation

First, through investigation of the site's usage conditions, this study identifies two structural problems: unreasonable temporary planning and green space waste. Simultaneously, the investigation reveals significant potential for ecological renewal in this area: the existing green space base area is sufficient, the terrain is flat and open, and it is adjacent to a large urban park, possessing excellent ecological connectivity and open space shaping conditions. This finding provides ample justification for introducing the "ecological environment" dimension of macro strategy prototypes, effectively compensating for deficiencies in the ecological functionality of the original strategy system.

(2) User Needs Investigation

Second, through data analysis of questionnaire surveys, this study further identifies significant functional demand gaps in four areas: cultural experience, social interaction, leisure activities, and public services. Accordingly, the research strategically implants four categories of temporary strategy prototypes—"cultural activation," "activities and leisure," "social services," and "economic incubation"—into the site. Together with the aforementioned ecological strategies, these form an integrated five-dimensional temporary functional system. This system not only responds to the practical demands of diverse stakeholders but also significantly enhances the social attractiveness and daily usage vitality of the space.

1.5 Conceptual Definitions

This section will focus on clarifying the core concepts involved in this study, systematically reviewing their historical background, developmental trajectory, and theoretical connotations to provide a clear conceptual framework and theoretical foundation for subsequent research.

1.5.1 Temporary Urbanism

As the theory of "temporary use" has spread across different regions, its connotations have gradually expanded and differentiated into several related concepts within various academic contexts. Among these, "Temporary Urbanism" has emerged as the most comprehensive concept, encompassing relatively narrower terms such as "temporary use" and "interim use." Broadly speaking, Temporary Urbanism emphasizes the temporary utilization of vacant land and buildings—a form of spatial reproduction under non-permanent, open, and flexible conditions, highlighting its role in promoting urban renewal, social experimentation, and public life[7][8]. Essentially, it represents an urban development model that adopts experimental usage approaches to identify the most suitable long-term renovation methods during periods when economic capacity and land ownership remain ambiguous[2][9].

In the theoretical development process, the "Urban Catalyst" organization first translated the German term Zwischennutzung into English as temporary use in 2004, laying an international foundation for research in this field. In 2006, Haydn and Temel further distinguished between the terms temporary use and interim use: the former refers to spatial practices positioned from the outset as non-permanent uses, while the latter emphasizes brief utilization within a predetermined usage cycle to explore possibilities divergent from the "dominant" function[10]. In 2012, Bishop and Williams expanded this research scope to

larger-scale urban cases across Europe and North America, explicitly proposing the concept of "Temporary Urbanism" and emphasizing its significance as a strategic framework[11]. Within this framework, Western societies have developed numerous pioneering concepts (Table 1), such as Tactical Urbanism, which distinguishes between "tactics" and "strategies"[12][13], and Pop-up Urbanism, which emphasizes commercial behaviors[14], among others. These represent nuanced expressions of the spirit of temporary use in different contexts, yet fundamentally remain focused on exploring how spaces can transcend rigid functional constraints to more flexibly accommodate diverse needs.

Table 1-1 Various Temporary Urbanism Concepts

Concept Name	Original Term	Region	Definition
Temporary Use	Zwischennutzung/ Temporäre Nutzung (German) Temporary Use (English)	Europe	Typically refers to planned usage with temporary functions as short-term ultimate goals[10] (e.g., temporary venues with specified lease periods, subsequent uses to be determined). Usually occurs in idle or underutilized land and buildings, characterized by non-permanence, informality, flexibility, and creativity[7][8].
Interim Use	Interim use	Europe	Generally refers to temporary usage outside existing plans (e.g., a series of functional explorations before the target function is implemented), placing greater emphasis on exploring possibilities divergent from the "dominant function" compared to temporary use[10].
Tactical Urbanism	Tactical Urbanism	North America, Australia	A community-participatory, low-cost, rapidly implementable, and temporary urban intervention approach. Emphasizes immediate interventions in urban spaces through small-scale, repeatable experimental projects. Aims to explore possible paths for long-term development[15].
Pop-up Urbanism	Pop-up Urbanism	North America	Similar to Tactical Urbanism, but emphasizes temporary practices in urban areas through short-term, flexible, spontaneous, or experimental methods. Aims to quickly activate urban spaces within limited time and resources and respond to immediate social or economic needs[14].

Guerrilla Urbanism	Guerrilla Urbanism	North America	Nearly identical to Pop-up Urbanism, but emphasizes the "anti-hegemonic" political attribute[16].
DIY Urbanism	DIY (Do It Yourself) Urbanism	Europe, North America	Unlike Tactical or Pop-up Urbanism, which often receive some government support, it is a small-scale spatial intervention model initiated spontaneously by individuals or communities, often without official approval. It responds to residents' immediate needs through low-cost, informal approaches, pursuing public leadership and public interest[17].

Source: Author's own drawing

1.5.2 The Olympic Movement

The Olympic Movement is one of the most influential international sports and socio-cultural phenomena since humanity entered the era of industrial civilization. Its core philosophy originates from the ideas of French educator Baron Pierre de Coubertin. In the late 19th century, Coubertin first proposed the concept of promoting peace, understanding, and international exchange through physical education, thereby giving birth to the modern Olympic Movement. The essence of the Olympic Movement is a social practice that transcends political, economic, and cultural boundaries. It has not only propelled the development of global sports but also exerted profound impacts on urban construction, architectural design, and social organizational models.

As early as the beginning of the 20th century, Coubertin proposed the concept of "Modern Olympia," advocating for the establishment of organized ensembles at different locations to host Olympic sporting events, serving as spatial carriers for his internationalist ideals and vision of "world peace." According to research by Gresleri (1994), this concept was both an extension of European intellectual thought from the first half of the 20th century (The World City) and reflected Coubertin's belief in viewing "sporting activities and physical education" as means to achieve social ideal objectives[18].

From a spatial perspective, Coubertin's envisioned "Modern Olympia" can be understood as an urban prototype—a "International City" embodying ideals of sports and peace. This concept resonated with the "International City" notion proposed by architect Ernest Hébrard (1910) around the same period: if the latter was conceived as a capital of peace and thought, then Coubertin's "Modern Olympia" could be defined as the "capital of sports and peace." In

his publication A Modern Olympia, Coubertin further elaborated on the concept of an "Olympic City." He not only described the distribution of competition venues but also specifically emphasized the need to provide temporary accommodation for personnel involved in event organization and activities, envisioning the establishment of a camp and dormitory-style living spaces near the competition venues to accommodate athletes and accompanying staff from around the world (Pierre de Coubertin, 1910). This idea laid the theoretical foundation for what would later become the "Olympic Village"[19].

However, during the early 20th century when the Olympic Movement was still in its formative stages, the organizational system remained under development, and issues such as event management, the definition of amateurism, and the number of competition events urgently required resolution. Consequently, the concept of an "Olympic Village" had not yet emerged as a primary concern. Nevertheless, Coubertin's spatial vision regarding sports, peace, and internationalism had already provided the Olympic Movement with profound cultural foundations and social ideals, becoming the intellectual source for modern Olympic city construction and Olympic Village planning.

1.5.3 Olympic Village

The Olympic Village, also known as the Athletes' Village or Athletes' Quarter, is one of the most essential components of the Olympic Games organizational system. The International Olympic Committee (IOC) defines the Olympic Village as: "a unique location during the Olympic Games capable of accommodating athletes from around the world and providing appropriate accommodation solutions for their final preparation phase before competitions" (IOC, 2025)[1]. Essentially, it is a dedicated living area prepared for athletes and coaches from around the globe, encompassing functions including but not limited to accommodation, training, medical services, and cultural exchange.

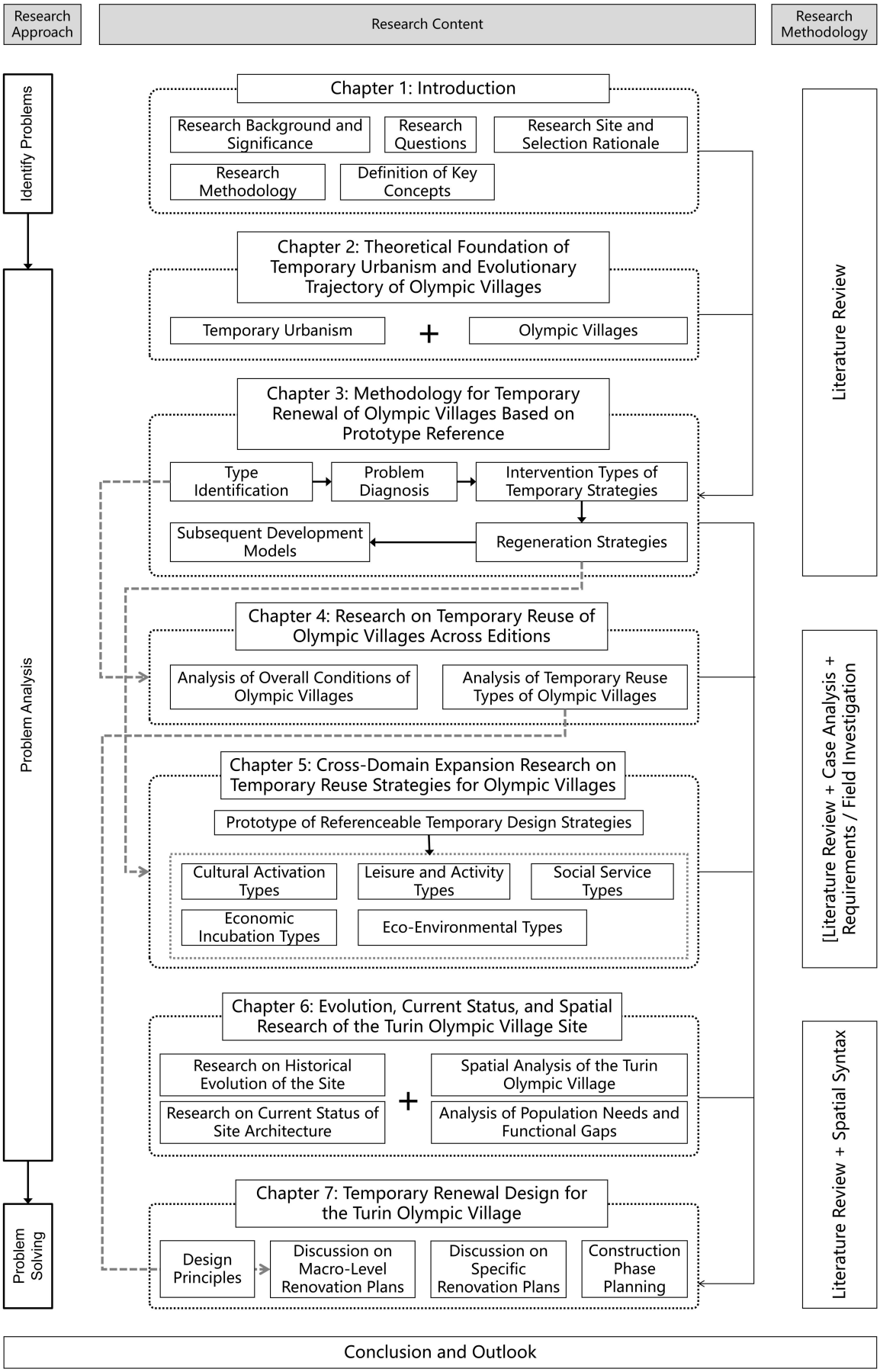
Modern Olympic Villages typically consist of two main components: a residential zone and an international zone. Internally, they are equipped with functional spaces for catering, medical services, entertainment, administration, and media services, providing participating delegations with a platform for centralized management and exchange prior to competitions. The Olympic Village represents not only a temporally existing spatial entity but also a product reflecting the evolution of socio-political, economic, and urban ideologies.

From an urban perspective, the form and function of Olympic Villages have continuously expanded with the passage of time. Initially focused primarily on "competition service facilities," they have gradually evolved into showcases of urban planning concepts and

architectural technological advancements. Particularly in recent decades, with the introduction of the "Sustainable Olympics" concept, Olympic Villages have been endowed with post-Games reuse missions, transforming into core nodes for urban regeneration and social housing.

Therefore, the Olympic Village serves not only as the "heart" of the Olympic Games but also as a significant spatial form embodying both the Olympic spirit and modern urban development. It carries functional requirements during the competition period while symbolizing cultural ideals of peace, unity, and shared humanity.

1.6 Technical Route



Chapter2 Theoretical Foundation of Temporary Urbanism and Evolutionary Trajectory of Olympic Villages

Within the current research context of urban renewal and spatial reuse, exploring the relationship between theoretical foundations and the evolutionary trajectory of research objects holds significant importance. This chapter unfolds its discussion along two main threads: "Theoretical Foundations" and "Spatial Evolution." On one hand, by examining the formation background, developmental trajectory, and theoretical connotations of temporary urbanism, it clarifies the evolutionary process and application logic of this concept within urban studies. On the other hand, through analyzing the origin and evolution of Olympic Villages, it reveals the spatial transformation characteristics manifested under the influence of socio-political, economic, and urban planning ideologies. This dual investigation of theory and object not only provides foundational support for subsequent case analyses but also establishes a basis for exploring the applicability of temporary urbanism in post-Games spatial regeneration.

2.1 Temporary Urbanism

As an urban theory addressing rapid social change and spatial uncertainty, temporary urbanism originated from European urban renewal practices at the end of the 20th century. This theory emphasizes activating idle or abandoned urban spaces through temporary, flexible, and low-cost spatial interventions, thereby achieving urban reuse and social regeneration. This section will systematically examine the formation background, developmental stages, and theoretical connotations of temporary urbanism from the perspective of its generative logic, revealing its significance as an important conceptual framework for contemporary urban renewal.

2.1.1 Formation Background

(1) Social Context

Following the conclusion of World War II, Western nations underwent rapid urban reconstruction. Driven by the pursuit of high profits, capitalism engaged in speculative development, propelling urban construction into a phase of accelerated expansion and giving rise to a proliferation of newly constructed urban spaces[20] . However, the industrial transformation and restructuring of the late 20th century led to a deceleration in economic growth, gradual population outflow from cities, and the emergence of counter-urbanization phenomena. Compounded by the accelerating pace of globalization, industrial relocation

ensued, taking with it the economic core of cities and ultimately resulting in extensive areas of urban space being left vacant and abandoned. The existence of these spaces not only signifies economic loss but also creates images of decay and negativity, undermining the overall vitality of cities and the impetus for regional renewal.

In response to this phenomenon, Polish sociologist Zygmunt Bauman offered a more macroscopic characterization of societal development. He posited that contemporary society (from the 1950s–1960s onward) has entered a "liquid" phase. During this period, social forms and institutions lack sufficient time to stabilize, thereby rendering them incapable of providing long-term planning frameworks for an uncertain future. As social structures and urban forms continue to evolve, human lived experiences increasingly manifest as transient and uncertain. Within this context, "nomadic" lifestyles have gradually permeated the daily rhythms of cities, altering behavioral patterns and value orientations in areas such as residence, work, and leisure[21]. Confronted with this social reality of continuously shifting structures, identities, and spatial relationships, the planning and utilization of urban space have begun to require strategies characterized by greater flexibility and adaptability—laying the theoretical foundation for the emergence of "temporary urbanism."

Building upon the aforementioned issues of urban spatial decline and theoretical context, Germany pioneered the concepts of "critical reconstruction" and "micro-renewal" during the 1980s Berlin International Building Exhibition (IBA), attempting to revitalize old urban districts through incremental spatial regeneration approaches. By the 1990s, German states, municipalities, and community levels further promoted multi-tiered spatial reuse practices, introducing the representative concept of "temporary use" (Zwischennutzung) [22]. This concept emphasizes maintaining spatial flexibility and adaptability during transitional phases of urban renewal, restoring regional vitality by meeting residents' daily public activity needs. Successful experiences in Berlin, Leipzig, and other locations gradually legitimized this development model as a solution to urban shrinkage and spatial decay, leading to its adoption and promotion across multiple countries.

(2) Economic Context

Within the context of globalization, economic fluctuations have exerted profound impacts on the production and utilization of urban space. The global financial crisis of 2007–2008 triggered rapid capital withdrawal from real estate markets, forcing numerous development projects to stall, adjust, or be abandoned. Although international macroeconomic policies and rescue measures temporarily stimulated economic recovery, this fragile

equilibrium was once again disrupted by the impact of the COVID-19 pandemic in 2020. Governments worldwide generally reduced fiscal expenditures, with sharp declines in infrastructure and public works investment, thereby encountering severe obstacles in urban renewal processes.

Within this highly uncertain economic environment, urban residents and small-to-medium enterprises with greater adaptability have gradually adopted temporary spatial use as a coping strategy. Its core characteristics lie in low cost, low risk, and flexibility, often relying on social capital and resource recycling rather than substantial financial investment, forming an alternative economic model akin to "anti-monetary" practices[7]. Such practices typically operate outside mainstream real estate markets yet can generate economic returns within short cycles while maintaining community public vitality. Simultaneously, governments have tended to enhance land use efficiency through subsidies and policy support, further strengthening the feasibility of this model.

Thus, economic crises not only exposed the fragility of traditional urban renewal pathways but also highlighted the potential of "temporary use" as an alternative mode of spatial production. It has played a unique role in safeguarding social vitality, supporting entrepreneurship among vulnerable groups, and promoting urban regeneration, gradually evolving into an important topic in marketing and academic research. This indicates that the economic context of temporary urbanism represents not merely a passive response to external shocks but rather an exploration of flexible adaptive mechanisms within urban development.

(3) Cultural Context

Within the context of global economic integration and consumer culture, the cultural industry has gradually emerged as a burgeoning field in the 21st century. It constitutes not only a critical component of post-industrial urban transformation but also serves as a benchmark for assessing a city's innovative vitality. Many cities are currently undergoing cultural industry transitions, whose success often hinges on whether the city possesses the capacity for cultural production and provides citizens with opportunities to participate in cultural production and practice.

As cultural consumption diversifies, venues for artistic and cultural activities have long transcended the limitations of traditional spaces such as theaters, art galleries, and museums, gradually expanding into the city's free and open spaces to become stages for temporary cultural events. Such activities not only enrich the city's cultural landscape but also frequently serve as vital catalysts for activating neighborhoods and promoting urban renewal. For

instance, the "Temporary Container City" at Amsterdam's NDSM shipyard in northern Amsterdam in 2012 utilized container-based stages to present integrated performances of theater, music, and visual media to the public, becoming a paradigmatic case of urban cultural innovation.

For the general public, the ability to access public spaces for cultural and recreational activities under conditions of speed and low cost not only enhances cultural experiential quality but also broadens choices for urban leisure lifestyles. Simultaneously, the flexibility and uncertainty inherent in temporary use inject cities with spontaneously vibrant cultural atmospheres. These practices, while expanding consumer markets, also nurture an informal urban culture that challenges mainstream planning frameworks and traditional development logics.

(4) Technological Context

With the advancement of the Third Technological Revolution, human society has comprehensively entered the Internet era. Modern manufacturing, supported by big data, artificial intelligence, and Internet of Things technologies, has witnessed significant productivity improvements, leading to profound transformations in societal operational models. Particularly stimulated by the COVID-19 pandemic in 2020, flexible work modes such as remote work and virtual meetings have been widely adopted, further dismantling temporal and spatial constraints and prompting people to universally pursue environmental adaptability and flexibility.

Within this context, "temporary use" has gained more rapid, low-cost, and widely accessible dissemination channels through the proliferation of the Internet and the development of mobile communication technologies. Festivals, gatherings, or spontaneous events can now achieve instant dissemination and organization via networks, enabling the public to swiftly obtain relevant information and participate. Simultaneously, groups sharing similar value systems can form interest-based communities through network social platforms, achieving resource sharing, multi-party collaboration, and proactively selecting idle or underutilized spaces to conduct temporary activities. For example, *Parking (Park) Day*, initiated in 2005 by the San Francisco art and design group Rebar, transformed a metered municipal parking space into a miniature urban park. These practices, interconnected through digital networks, integrate virtual and physical realms, gradually evolving into crucial catalysts for stimulating community vitality and cohesion.

2.1.2 Developmental Stages

(1) Origins of Temporary Use

The concept of "temporary use" (Temporary Use) first emerged within the developmental context of post-World War II European cities, with German practices being particularly representative. Following the war, due to severe social, economic, and political upheavals, West Berlin witnessed the emergence of numerous vacant buildings and spaces. These areas, located along the border zones of the Berlin Wall, lacked systematic urban planning and development for extended periods, rendering the idle spaces difficult to reuse. To mitigate financial losses or diminished rental income, many property owners opened these areas to squatters, thereby qualifying for government tax incentives. Through flexible utilization of these spaces by local residents, they gradually became fertile ground for "temporary use," endowing them with new social and cultural values.

Following German reunification in 1990, Berlin experienced large-scale deindustrialization and industrial transformation, resulting in renewed vacancy of numerous spaces due to population outflow and property depreciation. Confronted with these urban development challenges, "temporary use" gradually came to be regarded as a crucial means of addressing crises and also served as fertile soil for cultivating cultural innovation. Berlin thereby fostered an atmosphere characterized by openness, experimentation, and creativity, attracting numerous groups engaged in fashion, art, design, and music, transforming the city into an international gathering place and ideal destination for creative talents[23].

Research surrounding Berlin's temporary use phenomena gradually gained momentum, leading to the publication of a series of significant works. For instance, Klaus Overmeyer's Urban Pioneers: Temporary Use and Urban Development in Berlin, along with Temporary Urban Spaces: Concepts for the Use of City Spaces co-edited by Florian Haydn and Robert Temel, both utilized Berlin as a core case study to conduct in-depth explorations of temporary use phenomena in urban spaces.

(2) Temporary Urbanism

The research scope of "temporary use" gradually expanded to European countries such as the United Kingdom and the Netherlands, where scholars subsequently proposed the concept of "temporary urbanism." In the 2012 publication The Temporary City, British scholars Peter Bishop, Lesley Williams, and others examined issues such as social stratification, mass consumption patterns, cultural innovation environments, and community actions within contemporary society from a broader post-industrial economic transformation

perspective, using London as a case study. They emphasized the essential nature and latent value of temporary activities and proposed the necessity of incorporating these informal temporary practices into urban planning systems[11].

Simultaneously, Philipp Oswalt and Klaus Overmeyer included five cities—Berlin, Amsterdam, Vienna, Helsinki, and Naples—in their research project, publishing Urban Catalyst: The Power of Temporary Use in 2013. Through horizontal comparisons of temporary use cases within the historical, economic, cultural, and legal contexts of these five cities, the book analyzed underlying driving forces, the composition of organizers' roles, and user demand orientations, synthesizing multiple academic frameworks. The authors emphasized that temporary use not only activates urban spaces in the short term but also fills gaps during economic development cycles, becoming a significant driving force for promoting long-term urban transformation.

2.1.3 Theoretical Connotations

(1) Three Manifestations

In the theory and practice of urban planning and architectural design, "temporary urbanism" is often associated with terms such as "instability, fragmentation, and low quality," with its value frequently overlooked. In reality, the guidance provided by temporary urbanism for spatial utilization is not limited to the manifestation of "informality" alone. It plays a significant role in specific contexts and merits in-depth investigation.

The first category involves temporary use promoted by formal organizations, commonly observed in large-scale events such as the Olympic Games and World Expos. Governments typically select sites years in advance, planning and developing vacant urban parcels to construct temporary buildings for short-term use. Most of these structures are demolished after the events conclude, with only a few iconic elements permanently preserved as symbolic memories of the city or nation. Classic examples include the Eiffel Tower in Paris and the China Pavilion at the Shanghai World Expo.

The second category encompasses citizen-initiated temporary use, independent of formal planning. These activities often emerge through self-organization in abandoned sites or surplus spaces, such as fruit stalls under bridges, floral exhibitions in pocket parks, or simple constructions by community residents. Although such temporary spaces lack systematic planning and clear long-term objectives, they authentically reflect the diversity and complexity of citizens' daily lives, presenting a unique urban landscape.

Within the contemporary context of a "liquid" society, a third category of temporary use

has emerged: one that integrates characteristics of the aforementioned two types, preserving the vitality of grassroots self-organization while incorporating the sustainability of professional planning. Although these spaces still originate from spontaneous grassroots citizen activities, they introduce professional planning, operation, and macro-level coordination by specialists. This enables temporary spaces to maintain flexibility and strong adaptability while ensuring phased project outcomes and overall quality.

(2) Intervention Criteria

As an urban planning practice, temporary urbanism's pursuit of "temporary, flexible, and low-cost" spatial characteristics inherently limits its scope of application. To further understand the intervention criteria for temporary urbanism practices, researchers have summarized multiple standards suitable or unsuitable for temporary use from perspectives such as development status and urban context [24][25].

Table 2-1 Intervention Criteria for Temporary Urbanism

Evaluation Criteria	Suitable for Temporary Urbanism Intervention	Unsuitable for Temporary Urbanism Intervention
Land Ownership	Public	Private
Development Status	Lack of public investment or relevant policies	Active involvement of developers and investors
Urban Context	Stagnant and declining cities	Vibrant, expanding cities
	Experimental and flexible urban design approaches	Top-down comprehensive planning
	Social progress aims to enhance urban diversity, inclusivity, and publicness	Goal-oriented large-scale economic objectives
Spatial Development Potential	Vacant or derelict spaces	Areas in potential for imminent development
	Small-scale spaces	Large-scale spaces
	Fragmented residual spaces	Continuous, intact spaces
	Areas requiring immediate revitalization through consumption and new business models	Established tourist-commercial zones (e.g., key tourism districts)

	Vibrant community atmosphere (residents, non-profit organizations, micro-investors)	Vacant lots held by developers as investment assets, difficult to repurpose
Spatial Utilization Potential	Event-triggered activation and content curation	Fixed-function infrastructure or buildings
	Fluid spatial usage with flexible adaptability	Permanent construction forms
	Spaces newly freed from single-function constraints	Spaces with mature, diversified functions
	Spaces requiring new definitions of attributes and relationships	Spaces in stable equilibrium
	Spaces for testing innovative, potentially controversial ideas	Pre-validated solutions
	Tactical use by marginalized populations and subcultural groups (e.g., artist graffiti on Berlin Wall)	Strategic use approved for mainstream adoption (e.g., top-down planned commercial districts)

Source: Reference [24][25]

(3) Participating Entities

The advancement process of "temporary use" encompasses the complete chain from land approval, project fund raising, scheme design and implementation to operational evaluation. Therefore, participants with different levels and diverse backgrounds will be involved at different stages.

① Users

Within diverse urban contexts, participants in temporary use exhibit complex and multifaceted characteristics, with relatively rich social identity types. First are marginalized social groups, including homeless individuals, the unemployed, and other populations existing outside the mainstream social system. They typically occupy idle spaces for extended periods, utilizing them to satisfy basic needs for shelter and social interaction. Second are entrepreneurs and micro-enterprises with limited financial resources, who frequently occupy vacant spaces through low-cost leasing or free access, transforming them into entrepreneurial testing grounds or operation bases with flexible cost structures. Additionally, an increasing number of brand enterprises and cultural institutions now regard temporary use as a strategic tool for marketing and brand building. By conducting activities in informal spaces, they

attract target audiences and create novel consumption experiences. For instance, Nike has repeatedly created brand activity scenarios within limited timeframes through pop-up stores and mobile architectural forms, achieving simultaneous transformation in brand communication and market positioning. (See Table 2-2)

Table 2-2 User Typology of Temporary Use

Usage Nature	User Type	Purpose of Use	Form of Use
Commercial	Marginalized groups	Livelihood and social integration	Long-term, mobile occupation
	Entrepreneurs	Business incubation	Low-cost or free rental
	Micro-enterprises	Market testing and innovation	Short-term retail spaces
	Brand enterprises or cultural institutions	Sales and promotion	Pop-up stores or events
Non-commercial	Community activists and residents	Community activities	Temporary public space reconfiguration

Source: Reference [25]

② Intermediaries

In the advancement of temporary use projects, intermediaries often play a pivotal bridging role. Typically positioned between users, property owners, and municipal departments, they assume communication and coordination responsibilities. During the project's preliminary phase, they establish fundamental organizational and institutional frameworks, provide essential information and resources, and ensure smooth project implementation.

In public spaces, temporary use typically originates from community spatial optimization needs, frequently undertaken by non-profit organizations, professional design teams, or community planners. They are responsible for public opinion communication and collection, identifying appropriate funding channels and submitting applications, while integrating their own creativity and practical experience. This ensures that projects not only respond to usage demands during implementation but also stimulate social attention, embodying the value of interdisciplinary collaboration and multi-stakeholder community participation.

In temporary use of private spaces, due to property rights considerations, the interests and demands of owners and developers are more complex. Most countries lack relevant official policies, and temporary use typically depends on owner approval. To streamline this process, some private intermediary agencies have emerged, facilitating rapid matching

between owners and potential users to promote flexible utilization of idle spaces. For instance, London-based Space-2 Consulting specializes in providing venue information for short-term commercial and cultural-creative projects; Brandhub offers comprehensive services for retail brands in pop-up sales, covering site selection, leasing, insurance, and subsequent management. These professional institutions not only enhance the efficiency of temporary use but also drive its gradual progression toward standardization and model-based development.

2.2 Olympic Villages

The Olympic Village, as a crucial component of the Olympic Movement, has undergone functional and morphological evolution that profoundly reflects transformations in societal, economic, and urban planning paradigms. From its initial role as temporary athlete accommodation to its post-Games conversion into urban communities, educational institutions, or commercial complexes, the spatial renewal trajectory of Olympic Villages exemplifies a typical "temporary-to-everyday" logic. This transition from "event-specific temporary space" to "urban everyday space" not only embodies the core principles of temporary urbanism but also reveals the universal trend of urban vacant space regeneration within the context of globalization. This section will analyze the developmental characteristics of Olympic Villages across different periods, establishing a research framework for subsequent case studies.

2.2.1 Historical Formation Context

The emergence of the Olympic Village is intrinsically linked to the development of the modern Olympic Movement, representing both a significant component of sports history and a unique phenomenon in urban and social development processes.

The concept of the Olympic Village can be traced back to Baron Pierre de Coubertin. As early as 1910, he proposed the vision of "Modern Olympia" to the architectural community, integrating sporting events with internationalism and world peace ideals. This conception was inspired by contemporary European intellectual currents, emphasizing social progress through sports activities and physical education, while defining "Modern Olympia" as a transnational organizational complex. On one hand, it embodied aspirations for internationalism and world peace, resonating with the prevalent cultural and political ideals of early 20th-century European intellectual circles; on the other hand, it utilized sports education and competitive activities as means to realize the vision of social advancement and shared human values through physical training and international exchange. This ideology possessed strong

avant-garde and idealistic characteristics within its historical context, closely connecting sporting events with urban space, social order, and cultural objectives[1]. This laid the conceptual foundation for the subsequent emergence of Olympic Villages.

Beyond ideological inspiration, the formation of Olympic Villages was also driven by practical organizational needs. As the Olympic Movement evolved, event organizers gradually recognized that athletes and related personnel required centralized accommodation and living services during the Games. Additionally, Coubertin's earlier descriptions of the "Olympic City" specifically emphasized the importance of providing temporary residences and living services for participating groups. Consequently, the concrete practice of Olympic Villages possessed clear practical impetus.

Within the historical context of the early 20th century, the turbulence brought by two world wars and European society's pursuit of peace ideals positioned sporting events as crucial media for transcending national boundaries and fostering understanding. This historical trajectory facilitated the emergence of Olympic Villages. Simultaneously, the development of urbanization and industrial civilization provided the practical social soil for Olympic Villages. Within this context, Olympic Villages gradually evolved into systematic, functionally comprehensive complexes capable of meeting large-scale event organizational requirements while reflecting contemporary societal aspirations for public space and international exchange.

2.2.2 Development History

According to scholarly research and synthesis[26], the Olympic Village, as a crucial supporting facility of the Olympic Games, did not emerge instantaneously but gradually formed and matured through the combined influence of different historical periods, social contexts, and the evolution of Olympic ideals. The functional positioning, site selection, and relationship with the host city of Olympic Villages have continuously adjusted in response to the expanding scale of the Olympic Games and evolving urban development needs.

(1) Temporary Accommodation Period (1896–1928)

Pierre de Coubertin, the father of the modern Olympic Movement, conceptualized temporary residential space as the core function of the Olympic Village in his vision—resembling hotel rooms to meet centralized accommodation needs during the Games. However, in the actual operation of early Olympic Games, due to an incomplete organizational system, unpredictable numbers of participants, and limited duration of stay, host cities often relied on existing facilities such as schools, military barracks, or rented inns

to temporarily accommodate the growing number of athletes.

The 1924 Paris Olympics (the eighth modern Games) became a pivotal turning point in the institutionalization of Olympic accommodation. For the first time, the International Olympic Committee explicitly mandated that host organizers must provide unified accommodation for all participants. Accordingly, the Paris Organizing Committee constructed dormitories near the Colombes Stadium to centrally house athletes and uniformly provide sanitation and bathing facilities. Despite rudimentary conditions, this marked the first realization of the "Olympic Village" concept from vision to practice [27].

Entering the 1920s, as the Olympic scale continued to expand, the "emergency housing model" gradually emerged as a crucial solution for addressing temporary accommodation challenges. Olympic Village concepts proposed during this period were often based on barracks or military-style building clusters, complemented by service facilities such as post offices and dining halls, attempting to meet short-term concentrated residential needs. However, constrained by economic conditions, the construction of a genuine Olympic Village was not realized until the 1930s.

(2) Exploratory Period (1932–1936)

Coubertin's ideal residential model envisioned an Olympic Village without class distinctions, social stratification, or conflicts—achieving the most intimate living relationships. The 1932 Los Angeles Olympics, through a modern approach, realized for the first time a genuinely centralized Olympic Village form.

Influenced by the global economic crisis, the Los Angeles organizers constructed approximately 500 wooden cabins near the Baldwin Hills adjacent to the competition venue, providing centralized accommodation for athletes. This approach not only reduced costs compared to athletes staying dispersed in hotels but also gathered athletes within a relatively enclosed space, creating conditions for communication and management. The construction characteristics of Olympic Villages during this period were oriented toward low cost, temporariness, and practicality. The design and construction of wooden cabins embodied simplicity and modular features, meeting large-scale, short-term residential needs. Simultaneously, the prevalent prefabricated construction technology in the United States at that time enabled the rapid assembly and dismantling of the Olympic Village. This model not only demonstrated economic efficiency but also reflected the applicability of temporary architecture under emergency conditions. Consequently, the 1932 "Olympic Village" concept was regarded as one of the most successful attempts in Olympic history, and due to the

"remarkable perfection" of the Los Angeles Olympic Village management and operations, the organizing committee received a Nobel Peace Prize nomination[28].

The Olympic Village of the 1936 Berlin Olympics, however, marked another exploratory direction. Influenced by modern rationalism and the Garden City concept, the Berlin Olympic Village exhibited distinctive characteristics of efficiency in its planning and construction. Planners not only focused on the functionality of residential units but also emphasized the scientific nature and sense of order in spatial layout, striving to create a comprehensive and rigorously ordered living environment through uniform residential clusters and complete supporting facilities (such as training grounds, dining halls, and recreational areas). This planning philosophy emphasized the coordination between architecture and landscape, the organization of public spaces, and efficient land utilization, laying theoretical and practical foundations for subsequent Olympic Village construction[29].

Therefore, the exploratory phase of Olympic Villages from 1932 to 1936 not only demonstrated practical experience under temporary and low-cost models but also gradually progressed toward systematization and long-term development under the impetus of rational planning and modern urban concepts. The attempts during this period established prototypical paradigms for modern Olympic Villages.

(3) Formative Development Period (1948–1956)

The years 1948–1956 represented a crucial phase of post-war reconstruction and revitalization for the Olympic Movement. Following the 11th Berlin Olympics in 1936, the International Olympic Committee (IOC) held its 36th annual session in Paris, where fourteen cities submitted bids to host the 12th Olympic Games. Ultimately, through voting, Tokyo was selected as the host, with the competition scheduled for September 21 to October 6, 1940. However, Japan's subsequent initiation of the war of aggression against China, followed by the outbreak of war in Europe in 1939, forced the suspension of the Olympic Games, which were not resumed until after the war's conclusion. The two World Wars left three cancellations in Olympic history, constituting the darkest chapter in the development of the Olympic Movement.

Following the conclusion of World War II in May 1945, nations worldwide devoted themselves to post-war reconstruction. However, most countries were in a state of comprehensive devastation and unable to immediately host major international events. Within this context, only London, United Kingdom submitted an application and successfully secured the hosting rights for the 14th Olympic Games. London thus became the second city to host

the Olympics after 1908.

Around the time of the 1956 Melbourne Olympics, the IOC finally clarified the status of the Olympic Village, explicitly mandating that host nations must construct Olympic Villages rather than merely provide accommodation. This requirement was incorporated into the Olympic Charter, thereby confirming and guaranteeing the Olympic Village's status through institutional means[30].

In summary, while the scale and conditions of Olympic Villages during this period remained relatively rudimentary, the successful hosting of the Olympic Games within the post-war social context held profound significance. Simultaneously, the IOC's formal recognition of the Olympic Village's status marked its entry into the formative development stage.

(4) Comprehensive Development Period (1960–1976)

The 1960s–1970s represented a phase of comprehensive development in Olympic Village construction. As Western societies entered an era of mass consumption and leisure culture following the war, Olympic Villages gradually transcended their singular function as temporary athlete accommodation, beginning to assume broader urban functions. They became integral components of sports facilities and public services within host cities, organically integrating with urban planning.

At the conceptual level, the 1960 Rome Olympic Village was described by scholar Martin Wimmer as the "first modern residential district"[31], marking the first introduction of professional planning concepts to Olympic Village construction and their integration with urban development ideals. During this period, Olympic Villages evolved beyond temporary athlete residences into convergence points for sports and tourism consumption, driving the renewal of urban public service systems. Olympic Villages began to possess "dual functions": serving as athlete accommodation during the Games while transforming into residential facilities serving citizens post-Games. During this era, Olympic Villages became indispensable symbolic and functional components of the Olympic Movement.

In terms of spatial development, Olympic Villages in the 1960s were predominantly situated on urban peripheries, reflecting contemporary trends of urban expansion. For instance, the Rome Olympic Village constructed 33 residential buildings accommodating 7,000 athletes, with substantial investments in transportation and municipal infrastructure. Subsequently, the Mexico City Olympics established two large Olympic Villages on the southern periphery of the city, with designs influenced by Le Corbusier's "machine for living" concept, emphasizing

functionalism and transportation efficiency through increased roads and passages to address traffic pressures.

Entering the 1970s, the focus of Olympic Village construction shifted toward integration with urban centers. The Munich Olympic Village served as a representative case, incorporated within a 4-kilometer radius of the city center, emphasizing the "proximity Olympics" concept. The construction model transitioned toward centralized and comprehensive development. The village not only featured complete residential units and transportation systems but also added commercial, cultural, and recreational facilities, forming a genuine "city within a city." This model not only enhanced service efficiency during the Games but also promoted urban renewal and elevated international status post-Games. Beginning with this Olympic Games, planners consciously promoted the integration of Olympic facilities such as Olympic Villages with urban planning[32].

Overall, Olympic Village construction from 1960 to 1976 exhibited trends toward "scale expansion" and "functional integration." Olympic Villages were no longer merely temporary accommodation spaces during the Games but gradually became integral components of host cities' long-term urban planning. The evolution of their design and functions not only met Olympic event requirements but also propelled urban development across multiple dimensions including housing, transportation, recreation, and culture, becoming a significant driving force in the urban modernization process.

(5) Sustainable Development Period (1980–2024)

Entering the 1980s, the construction and planning of Olympic Villages gradually integrated global developmental ideologies, with their core focus shifting toward the concept of sustainable development. During this period, the international community widely recognized the profound impacts of urban expansion, energy crises, and ecological degradation. In 1987, Norwegian Prime Minister Gro Harlem Brundtland formally introduced the concept of "sustainable development" in the report *Our Common Future*, providing a theoretical foundation for subsequent Olympic Village planning. In 1992, the United Nations Conference on Environment and Development (UNCED) adopted *Agenda 21* and the *Earth Charter*, further deepening the understanding of sustainable development theory[33]. Subsequently, the International Olympic Committee established the Sport and Environment Commission, publishing *Agenda 21 for the Olympic Movement* based on *Agenda 21*, establishing fundamental principles of sustainable development that profoundly influenced the subsequent evolution of Olympic Villages.

During this period, Olympic Villages were regarded as new opportunities for urban

development. Their site selection and planning were often integrated into overall urban development strategies, promoting urban renewal or new district development through Olympic Village construction. For instance, the Barcelona Olympics seized the opportunity of renovating former industrial warehouse sites to reshape the urban landscape; the Seoul Olympics, through substantial infrastructure investment, closely connected the Olympic Village with the urban core area, achieving optimization of transportation and spatial structure.

Entering the 21st century, Olympic Village construction gradually embodied goals of environmental friendliness and resource conservation. The Sydney Olympics pioneered environmental design principles for Olympic Villages, emphasizing clean energy, recycling and reuse, and low-carbon transportation systems, while fully considering post-Games sustainable utilization needs in site selection. The Athens Olympics Olympic Village was partially converted into affordable housing post-Games, meeting the residential needs of low-income groups and embodying the value orientation of social equity. The Beijing Olympics in 2008 emphasized the Green Olympics concept, comprehensively introducing energy-efficient buildings, rainwater harvesting, and ecological restoration into Olympic Village construction, becoming a typical case of sustainable development.

Overall, the construction trajectory of Olympic Villages from 1980 to 2024 demonstrates an evolution from singular event-service functions toward becoming an important platform for promoting urban renewal, advancing social equity, and leading sustainable development. Olympic Villages are no longer merely "temporary residences" for short-term use but have become integral components of post-Games urban structural adjustment and long-term development strategies.

2.3 Chapter Summary

This chapter has systematically reviewed the theoretical foundations of temporary urbanism and the evolutionary trajectory of Olympic Villages. Regarding the theory of temporary urbanism, it elucidated its formative motivations from four-dimensional backgrounds—social, economic, cultural, and technological—and clarified its developmental trajectory and theoretical connotations. Regarding the research on the developmental trajectory of Olympic Villages, it divided their evolution into five stages (1896–2024), revealing their transformation path from temporary accommodation to sustainable development

Chapter3 Methodology for Temporary Renewal of Olympic Villages Based on Prototype Reference

This section systematically elaborates the macro-level research methodology proposed in Section 1.4, aiming to construct a comprehensive methodological framework for Olympic Village spatial renewal practices centered on the core concept of "temporary use." This framework forms a complete methodological chain encompassing "typology identification—problem diagnosis—intervention typology—regeneration strategies—development pathways."

In the "typology identification" phase, a systematic analysis of Olympic Village types that have appeared in previous Games is conducted based on site selection, reuse models, and temporary strategies. This analysis culminates in the classification of typical temporary reuse typologies. The resulting typological framework provides a foundational reference system for subsequent renovation design, offering particular guidance in overall spatial structure organization and functional layout planning.

In the "problem diagnosis—intervention typology—regeneration strategies" phases, this research focuses on temporary urban practice projects on a global scale (such as pop-up parks, temporary markets, artistic interventions, etc.). Through systematic deconstruction of spatial organization methods, installation types, functional configurations, and atmosphere creation approaches, a series of reusable temporary design strategy prototypes are extracted. These prototypes are further categorized into five major functional dimensions: cultural, activity-based, social service, economic, and ecological-environmental categories. This classification aims to provide expandable and transferable design content support for the temporary transformation of Olympic Villages.

Finally, through tracking the long-term evolutionary trajectories of temporary intervention projects, this research summarizes six typical subsequent development models (such as "scattered replication," "from points to surfaces," etc.), providing pathway guidance for the subsequent planning of temporary strategies.

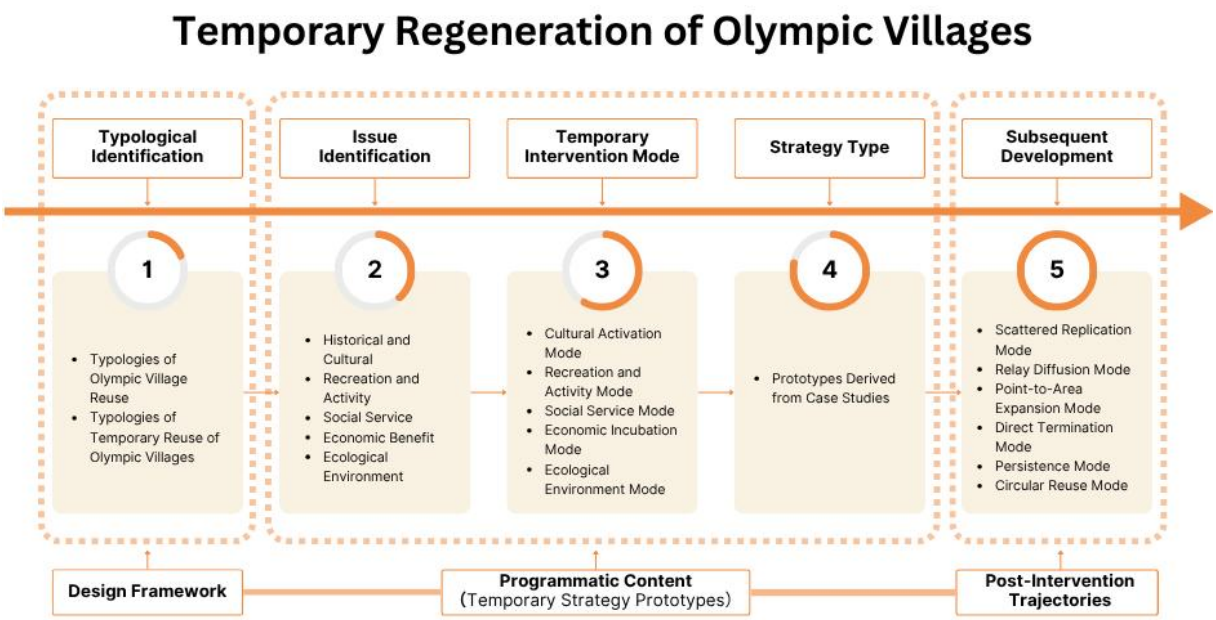


Figure 3-1: Spatial Renewal Process

SSource: Author's own drawing

In summary, this macro-level research methodology not only constructs a clear logical chain but also, through the progressive structure of "typology—problem—strategy—pathway," establishes a robust theoretical and methodological foundation for the localized renewal practice of Ex-MOI sites.。

3.1 Type Identification

In the research on Olympic Village spatial renewal, typology identification serves as a crucial prerequisite for constructing an analytical framework. Through typological classification, the differences in spatial morphology and planning approaches across different periods of Olympic Villages can be more clearly revealed, thereby grasping the intrinsic logic of their developmental evolution. Typology identification not only helps clarify the commonalities and differences among Olympic Villages of various editions but also provides a foundational basis for subsequent problem diagnosis and the selection of intervention types and strategies.

In conducting typology identification of Olympic Villages, this study primarily relies on four core dimensions: architectural style, site selection, post-Games utilization models, and temporary strategies. Among these, changes in architectural style directly reflect the technological conditions and aesthetic orientations of specific historical periods[34] ; the logic of site selection mirrors the evolution of developmental concepts related to urban planning, transportation, and ecology; post-Games utilization not only embodies shifts in conceptual

frameworks but also reveals adjustments in policy, economic conditions, and social demands; and temporary strategies, as the focal point of this research, aim to provide more operational methodological support for the temporary transformation design of Olympic Villages through systematic reference to global practical experiences. By integrating the aforementioned dimensions, this study constructs a typological spectrum of Olympic Villages, thereby establishing a solid theoretical foundation for subsequent exploration of their renewal practice pathways.

3.1.1 Architectural Style Typology

In the typological identification of Olympic Villages, architectural style serves as one of the most intuitive and core classification criteria. In his work Olympic Buildings, Martin Wimmer (1976:49) proposes that the evolution of Olympic Villages can be divided into three phases based on variations in housing styles, with each phase reflecting the technological conditions and urbanization characteristics of specific historical periods.

(1) Detached House Model

This phase (Detached houses) features Olympic Villages primarily composed of detached houses or bungalows, with layouts resembling suburban residential areas or industrial zones in Europe and America during the early 20th century. This model is termed the "initial type," with representative cases including the 1932 Los Angeles Olympic Village and the 1936 Berlin Olympic Village. Such architecture emphasizes low density and dispersed layouts, embodying the temporary accommodation characteristics of early Olympic Villages.

(2) Apartment Block Model

Beginning with the 1952 Helsinki Olympic Village, Olympic Villages gradually adopted the apartment block form to accommodate larger-scale athlete accommodation needs. This model became the mainstream choice for subsequent Olympic Villages, such as the 1960 Rome Olympic Village and the 1964 Tokyo Olympic Village (where Tokyo combined apartment blocks with wooden units). Compared to the detached house model, the apartment block model demonstrates greater efficiency in land utilization and functional organization, reflecting the acceleration of urbanization processes.

(3) High-rise Residential Complex Model

Entering the 1960s and 1970s, Olympic Village construction shifted toward large-scale high-rise residential complexes (Large housing complexes), emphasizing standardization and scalability. The Olympic Villages of Mexico City 1968, Munich 1972, Montreal 1976, and Moscow 1980 all exemplify this model. Such building clusters typically consist of numerous

highly uniform high-rise structures, significantly altering urban skylines and density while enhancing accommodation capacity.

In summary, the evolution of Olympic Village architectural styles represents not merely changes in dwelling forms but also profound transformations in technological advancement, social development, and urban expansion across different periods. From suburban detached houses to urbanized apartment blocks, and finally to high-rise complexes within the context of metropolitan development, Olympic Villages have gradually become important showcases of urban modernization levels.

3.1.2 Site Selection Typology

Beyond the evolution of architectural styles, site selection strategies hold equal significance in the development of Olympic Villages. From an urban planning perspective, Olympic Villages serve not only as temporary residences for athletes but also as experimental fields for diverse urban spatial layouts.

Scholars frequently associate Olympic Villages with utopian conceptions of the "ideal city," arguing that their planning and construction embody characteristics of various urban models. For instance, scholar Muñoz F. points out that Olympic Village site selection tendencies may be influenced by urban planning ideologies: cases influenced by the garden city concept tend to select rural or suburban areas with landscape advantages; whereas cases influenced by the satellite city concept prefer establishing functionally self-sufficient, structurally complete Olympic Villages at urban peripheries[34].

Further systematic analysis of historical Olympic Village cases reveals two additional typical site selection types beyond the aforementioned categories: first, Olympic Villages embedded within urban centers; second, Olympic Villages emerging since the 1980s with the goal of urban problematic space regeneration—these latter cases often leverage the Olympics as an opportunity to reconstruct urban decay areas or socially problematic spaces (such as deteriorated industrial zones).

For analytical convenience, this study categorizes the aforementioned four site selection types as: suburban landscape type, satellite city type, urban center type, and revitalization type. This classification not only reflects the pursuits and explorations of Olympic Villages in site selection across different periods but also provides a clear framework for understanding their spatial positioning.

(1) Suburban Landscape Type

The "garden city" concept originated from European reformist thought in the latter half

of the 19th century. Its core principle involves improving housing shortages, excessive population density, and high urban mortality rates emerging in industrialized societies through a spatial organization method combining urban and rural elements, utilizing the advantages of abundant rural land area and landscape. Within this context, garden cities were regarded as important products of bourgeois urban reform and gradually became typical representatives of rationalized urban construction and scientific residential thinking, emphasizing efficiency, minimal space utilization, and rational layout of dwelling units.

In the early 20th century, the influence of garden cities expanded to Germany, becoming an important means of urban expansion and combining with modern rationalist thought during the nascent period of the Bauhaus. In terms of housing forms, it exhibited "anti-urban" characteristics, emphasizing attention to landscape. This concept was particularly prominent in the 1936 Berlin Olympic Village. As a typical suburban residential cluster, the Berlin Olympic Village embodied the "anti-urban" characteristics of workers' colonies (Siedlungen) and reinforced environmental shaping through "landscape engineering." Subsequently, the site selection style of "suburban landscape type" Olympic Villages was further extended, visible in cases such as Helsinki 1952 and Melbourne 1956, all emphasizing integration with natural landscapes in site selection and spatial organization.

Thus, the site selection of "suburban landscape type" Olympic Villages not only represents an important typological characteristic of early Olympic Village planning but also provides a practical foundation for subsequent Olympic Villages' exploration of urbanization and landscape shaping.

(2) Satellite City Type

After World War II, the "Modern Movement" thought propagated by Le Corbusier and CIAM influenced the reconstruction and regional expansion of many European cities, with the satellite city concept serving as the dominant approach. Under this model, urban functions were clearly dispersed into different areas: residential zones were equipped with commercial, health, educational, and entertainment/sports facilities, supplemented by extensive open green spaces. Residential areas were no longer singular living spaces but integrated public services, recreational activities, and urban standardization elements, forming a complete urban organism.

This planning philosophy also influenced the site selection planning of multiple Olympic Villages. For example, the Rome 1960 Olympic Village (Campo Parioli) and Mexico 1968 Olympic Village (Miguel Hidalgo) both adopted satellite city design concepts. Among these,

Miguel Hidalgo Village was defined as a "residential city," containing elementary schools, children's parks, medical clinics, shopping areas, green spaces, and recreational facilities internally, with parking spaces provided for each household. Its population density reached 580 persons per hectare, ensuring compactness and efficiency of the urban unit.

In summary, satellite city-type Olympic Villages reflect the core thinking of post-war urban expansion through clear functional zoning and standardized construction. Their essential characteristic lies in constructing independent and self-contained "small urban units" within the framework of a "complete city"—this trend also reveals the path of Olympic Villages evolving from event-service facilities toward permanent components of urban fabric.

(3) Urban Center Type

The core characteristic of the "urban center type" Olympic Village site selection lies in the reuse and functional transformation of land within urban central spaces. Since the 1960s, this trend of transforming central areas and introducing new leisure and consumption functions has gradually become a norm in the urbanization process of major Western cities. Through redevelopment of existing central district open spaces or vacant land, cities continuously introduce new public services, leisure facilities, and commercial functions, making the core area not only a political and economic center but also an important carrier for citizens' daily leisure and cultural consumption.

In Olympic Village practice, the construction of Munich (1972) and Montreal (1976) Olympic Villages represents typical cases of this type. The Munich Olympics created a large recreational park and comprehensive sports facilities in the northern urban area, providing the city with a new community center and significantly enhancing the value of the district. The green landscape design within the Olympic Village not only served residential and activity needs during the Games but also became an important space for citizens' daily leisure and commercial sports activities in the post-Games period, where people can participate in diverse recreational activities such as golf, swimming, table tennis, and dance. This process effectively integrated Olympic venue construction with the city's long-term public leisure system development.

In comparison, the Montreal Olympics selected an area long influenced by leisure planning as the ideal site for Olympic complexes and the Olympic Village. By constructing a world-class sports center and multi-functional leisure facilities, Montreal not only met Olympic requirements but also left behind one of the world's largest sports centers capable of hosting virtually unlimited types of events and activities. This sports center became not only

the primary venue for citizens' daily fitness and leisure but also attracted numerous international competitions, further enhancing the city's visibility and attractiveness.

Overall, the "urban center type" Olympic Village site selection emphasizes treating urban central areas as experimental fields in Olympic Village planning, achieving urban vitality regeneration through land reuse and functional introduction. It embodies the deep integration of Olympic Villages with urban development, making Olympic legacies important opportunities for driving the renewal of urban core areas.

(4) Revitalization Type

Since the 1980s, a new type of Olympic Village site selection strategy has gradually emerged: focusing on the transformation of decayed or problematic areas within cities and leveraging the Olympic opportunity to tap their potential as new urban centers. The Olympic Village practices of Seoul (1988) and Barcelona (1992) represent typical examples of this "revitalization type" site selection. Both Seoul's Han River Jamsil area and Barcelona's waterfront zone were repositioned as core pivots for urban development under Olympic impetus.

In the Seoul case, the Olympics were viewed as an important opportunity to alleviate congestion and break the pattern of urban marginalization. Its Olympic planning adopted a "multi-center" concept, complemented by strict land and park control policies, tightly connecting Seoul with surrounding regional transportation networks to form an expanded metropolitan system (Kwaak, 1988). In Barcelona, Olympic Village development was understood as a means to strengthen urban integrity, establishing connection systems between the Olympic Village (central location) and other metropolitan core areas by redefining the service and influence boundaries of the Olympic Village (Millet, 1992), organically integrating facilities with urban structure and promoting spatial equilibrium.

Furthermore, "revitalization type" Olympic Villages emphasize comprehensive transformation of land use. Seoul combined Olympic facilities with urban waterfront renewal through restoration and transformation along the Han River, creating new urban landscapes; Barcelona, through reshaping of the waterfront area, constructed diverse urban action zones, injecting sustained momentum for long-term urban development.

In summary, "revitalization type" Olympic Village site selection transcends single-event functionality, making Olympic Villages important strategic nodes for driving urban structural transformation and modernization processes. Its core value lies in: using major events as catalysts to activate the potential of decayed areas.

3.1.3 Post-Games Utilization Typology

Through systematic analysis of historical Olympic Village cases, this study finds that their post-Games utilization models exhibit significant typological characteristics. Although the subsequent uses of Olympic Villages are profoundly influenced by multiple factors including specific national conditions, economic development levels, policy orientations, cultural traditions, historical backgrounds, and social demands of various countries—resulting in highly diverse actual utilization pathways—deeper analysis reveals that these seemingly varied practices still share common characteristics in functional positioning and spatial governance logic, which can be categorized into several typical types.

Further observation reveals a potential correlation between Olympic Village site selection types and their post-Games utilization models. For instance, "suburban landscape type" Olympic Villages, due to their location at urban peripheries or rural areas, often face constraints such as low transportation accessibility, insufficient public service facilities, and difficulties in population attraction, resulting in relatively limited post-Games transformation pathways, primarily retaining partial sports facilities or converting entirely into ordinary residential communities. In comparison, "urban center type" and "revitalization type" Olympic Villages, embedded within urban core areas or located in problematic spaces requiring urgent renewal (such as abandoned industrial sites or deteriorated neighborhoods), not only enjoy higher locational value and infrastructure density but also possess stronger spatial integration capabilities and public intervention potential, thereby supporting more diverse and complex utilization models—for example, transforming into mixed-function zones integrating residential and research functions.

Therefore, conducting classification research on Olympic Village post-Games utilization can provide theoretical and practical foundations for future host cities in formulating heritage management strategies. Based on this, this study will systematically summarize major utilization types in Chapter 4 through typical historical cases and explore the intrinsic connections between different types and site selection models.

3.1.4 Temporary Strategies Typology

Through systematic analysis of Summer and Winter Olympic Games Olympic Village cases, this study finds that although their temporary strategies are limited in form and technical means, they overall exhibit highly typologized characteristics—namely, within a limited strategy set, several typical approaches with common logical patterns repeatedly emerge. These strategies not only respond to functional requirements during the Games period

but also play crucial roles in the post-Games transformation process. Given this, this study will further introduce temporary strategies as a core analytical dimension based on the classification of Olympic Village post-Games utilization types, refining temporary intervention models applicable to different utilization pathways.

Following this methodological approach, this study will systematically summarize several typical types of Olympic Village temporary strategies and conduct in-depth analysis of their differentiated characteristics regarding strategies, utilization models, and site selection. Specific typological identification, comparative analysis, and case verification will be elaborated in detail in Chapter 4.

3.2 Problem Diagnosis

In research on the renewal and reutilization of Olympic Village spaces, the primary task of "problem diagnosis" is to establish an analytical framework capable of comprehensively reflecting spatial issues. This framework must simultaneously encompass the material attributes, social functions, cultural values, economic values, and environmental values of space to provide a solid foundation for subsequent strategy selection.

3.2.1 Problem Dimensions

As part of Olympic heritage, Olympic Villages can draw upon numerous theoretical achievements from international heritage conservation and urban renewal fields. Through horizontal comparison of existing research, it is evident that researchers typically categorize analytical dimensions into three fundamental levels: culture-society-environment. For instance, UNESCO's *Convention Concerning the Protection of the World Cultural and Natural Heritage* emphasizes that cultural identity, social vitality, and environmental quality are essential factors for the sustainable development of historic urban areas[35]; similarly, the European Heritage Strategy repeatedly mentions terms such as "culture," "social participation," and "environment," while also emphasizing aspects including "economic development," "sustainable development," and "education"[36].

As emphasized therein, in the actual reutilization process of heritage spaces, beyond the three factors of culture, society, and environment, "economy" has been repeatedly verified as a critical factor influencing effectiveness (Figure 3-2). Similarly significant is the "public activity" factor. Jane Jacobs proposed in *The Death and Life of Great American Cities* that diverse users and frequent activities on streets are prerequisites for urban space safety and vitality. This indicates that spatial regeneration depends not only on physical transformation

but also on continuous participation in daily life. For example, the "Estonoesunsolar" project in Zaragoza, Spain, employed light, rapid, and inexpensive intervention strategies to transform numerous vacant lots in the city into attractive hotspot spaces (such as gardens, children's playgrounds, etc.). Through continuous activity implantation, an urban public space network was ultimately formed, not only rescuing numerous inactive plots in the city but also strengthening the virtuous cycle of daily attractiveness and enhancing community cohesion. However, if public activities are sporadic or short-term, spaces may decline again after brief prosperity.



Figure 3-2 Culture and Cultural Heritage

Source: See Chart Source Table

Therefore, based on the aforementioned theoretical framework, this study refines and expands the dimensions of problem diagnosis into five aspects:

① Historical Culture—reflecting the value of space in carrying historical memory and continuing local culture;

② Leisure Activities—demonstrating the function of space in promoting public daily use, social interaction, and recreation;

③ Social Services—assessing the role of space in providing essential guarantees such as medical care, legal services, daily living, and survival needs;

④ Economic Benefits—measuring the contribution of space to regional economic vitality, employment opportunities, and industrial diversification;

⑤ Ecological Environment—focusing on the potential of space to improve ecosystems, respond to climate change, and enhance environmental quality.

This five-dimensional framework not only preserves the internationally recognized

three-pillar structure of culture-society-environment but also integrates important drivers repeatedly validated in heritage space renewal practice (economy and public activities), thereby enabling more precise revelation of major problems and potentials in Olympic Villages during the reutilization process, and providing a systematic basis for matching temporary strategy intervention types and refining design prototypes.

3.2.2 Diagnostic Methods

After completing the induction of potential problem types, the next step of the research focuses on how to identify and determine the actual existence of these problems. In other words, facing the above five categories of common problems, it is necessary to establish a set of observable, verifiable, and systematic diagnostic methods to achieve precise identification and classification of problems. Specifically, this study adopts the following methods for operational analysis:

(1) Observation and Judgment

Through field surveys, street view maps, or satellite imagery, conduct intuitive identification of cultural elements in Olympic Village spaces (such as historical buildings, public art), activity and leisure facilities (such as squares, seating, fitness equipment), social service facilities (such as clinics, community activity venues), commercial facilities (such as markets, business locations), and ecological elements (such as green coverage rate, water quality, microclimate). If a certain type of element is significantly missing, it likely indicates potential problems in that dimension.

(2) Media Content Assessment

By retrieving local news, community platforms, and social media, analyze the content volume and activity level of Olympic Village spaces regarding cultural activities, public events, social services, commercial operations, or environmental evaluations. If cultural topics are scarce, public activities are lacking, service and consumption experience evaluations are insufficient, or concentrated negative ecological feedback appears, all reflect inadequate functional activation.

(3) Policy or Official Document Assessment

Review historical archives, heritage registers, urban planning, renewal and transformation plans, investment promotion manuals, and ecological civilization construction documents to determine whether the space has been assigned corresponding functional positioning in culture, leisure, social services, economy, or ecology. If there is a lack of clear orientation or relevant policy support, it indicates insufficient development in that dimension.

(4) Dialogue with the Public

Through online questionnaires, forum interactions, comment section analysis, or offline interviews and questionnaires, collect public feedback on cultural identity, daily leisure, service access, consumption experience, and ecological perceptions. If the public generally lacks positive experiences or awareness, it indicates that the dimension has not formed an effective usage foundation.

(5) Openness Assessment

Particularly applicable to the activity/leisure and social service dimensions. Through spatial structure analysis (using spatial analysis tools such as space syntax) or field surveys, evaluate the connectivity and accessibility of Olympic Villages to urban roads and public spaces. If the space is closed with limited entrances, it directly weakens its potential in relevant dimensions.

3.3 Intervention Types of Temporary Strategies

After completing the systematic diagnosis of spatial problem types in the Olympic Village, identifying the corresponding temporary intervention types becomes a crucial step in strategy construction. As a flexible, low-cost, and highly adaptive urban intervention method, temporary use can effectively activate the potential value of idle or inefficient spaces before formal renovation, guide public participation, and achieve preliminary integration of multi-dimensional goals including social, economic, and ecological aspects.

In response to five common spatial problem dimensions in the Olympic Village—lack of cultural identity, insufficient activity and leisure functions, weak social service support, low economic vitality, and fragile ecological environment—this study proposes five targeted temporary intervention types: cultural activation type, activity and leisure type, social service type, economic incubation type, and ecological introduction type. Each intervention type corresponds one-to-one with specific spatial problems, aiming to lay the foundation for long-term renovation through short-term, reversible yet creative interventions. The following sections will elaborate on the core logic, applicable scenarios, and expected objectives of these five intervention types, thereby providing theoretical support and operational frameworks for subsequent strategy design and case empirical analysis.

3.3.1 Cultural Activation Type

(1) Intervention Logic

The core of the cultural activation type lies in utilizing symbolic or commemorative

temporary cultural expression methods to rapidly awaken public cultural awareness and emotional resonance towards the space. By establishing flexible and variable spatial installations and low-cost, replicable cultural events (such as art exhibitions, intangible cultural heritage activities, community film screenings, folk festivals, etc.), the Olympic Village space temporarily assumes the role of cultural transmission and experience, thereby constructing a symbolic and participatory "cultural place" in the short term.

(2) Applicable Scenarios

This type is mainly applicable to spatial types in the Olympic Village that possess prominent historical and cultural value but exhibit significant cultural deficiency, such as spaces where original cultural attributes have been interrupted, historical memory is blurred, or users have weak awareness of their cultural value. For example, Olympic venue facilities with era-specific architectural forms that carry important national memories.

(3) Intervention Objectives

The cultural activation type aims to achieve the following objectives through short-term, perceptible cultural events or art installations:

① Value: Convey specific cultural values and reshape the symbolic meaning of the space;

② Atmosphere: Create a culturally distinctive local atmosphere, enhancing sense of place and belonging;

③ Cultural Identity: Stimulate public emotional participation and topic dissemination, improving the visibility and social recognition of the space;

④ Sustainability: Create cultural foundation and public support for subsequent long-term renovation strategies, forming a transition mechanism of "culture-led—strategy-driven" approach.

3.3.2 Activity and Leisure Type

(1) Intervention Logic

The activity and leisure type aims to enhance residents' social connections, sense of belonging, and living comfort by deploying flexible, low-cost facilities and spatial transformations to construct community activity venues and open leisure spaces that are easy to organize and sustainably operated. This type emphasizes the public attributes and daily applicability of space, capable of accommodating diverse community affairs, social events, and public services, while also meeting citizens' multiple needs for short-term stays, relaxation, communication, and informal interactions. Its core logic lies in activating the

social potential and public functions of space through "participatory daily activities."

(2) Applicable Scenarios

This type is mainly applicable to spatial types in the Olympic Village that lack public activities and daily leisure functions, especially areas with high spatial vacancy rates, insufficient daily usage frequency, and lacking attractiveness for citizen stays and interactions. For example, large-scale vacant sites surrounding the Olympic Village.

(3) Intervention Objectives

The main objectives of the activity and leisure type are:

① Provide convenient, comfortable, and accessible public activity venues, improving space utilization rates and dwell time;

② Guide self-organized groups or community institutions to carry out diverse leisure and social activities, enhancing community cohesion;

③ Achieve rapid activation and sustained operation of public space functions under temporary intervention conditions.

3.3.3 Social Service Type

(1) Intervention Logic

The social service type focuses on meeting citizens' basic needs in medical care, legal services, daily life, and survival security. By introducing temporary, mobile, and scalable public service facilities into spaces, it provides directly accessible social assistance and support to resource-deficient areas (such as community health stations, legal aid points, elderly assistance stations, parcel lockers, self-service machines, etc.). Such interventions not only focus on functional supplementation of physical space but also emphasize social equity and service accessibility for vulnerable groups, aiming to alleviate potential social conflicts and functional deficiencies through low-cost temporary strategies, thereby enhancing community security, mutual assistance, and happiness.

(2) Applicable Scenarios

This type is mainly applicable to spatial types in the Olympic Village with weak or missing social service functions, particularly areas characterized by high population density but inadequate public service infrastructure. Such spaces often suffer from lack of community service facilities and disconnection from surrounding community services. For example, public spaces near communities within the Olympic Village, where original community service functions disappear after these spaces become vacant, leaving residents lacking accessible daily service facilities.

(3) Intervention Objectives

The core objectives of the social service type include:

① Introduce service functions: Introduce rapidly deployable basic public services such as health monitoring, legal consultation, maternal and infant care, etc.;

② Enhance social equity: Alleviate social service shortages in low-development urban areas, providing visible, accessible, and sustainable daily service support for vulnerable groups, improving service equity and reducing social exclusion;

③ Strengthen cohesion: Enhance residents' sense of gain, security, and trust mechanisms through social service functions in spaces, strengthening community cohesion.

3.3.4 Economic Incubation Type

(1) Intervention Logic

The economic incubation type utilizes short-cycle, low-cost spatial utilization methods, providing basic operational conditions and experimental venues for small-scale businesses, start-up projects, and temporary economic activities through the installation of flexible, easily dismantled, mobile, and reusable facilities. This type emphasizes low-threshold entry and phased trial-and-error, enabling operators to achieve preliminary revenue return and exposure within a limited timeframe while avoiding high-investment commercial risks, effectively promoting initial economic activation of the space and subsequent business model evolution.

(2) Applicable Scenarios

This type is applicable to spaces with certain accessibility and openness, possessing potential commercial value but lacking long-term stable economic activities. For example, gray spaces or interiors of abandoned buildings within the Olympic Village, or interface areas with the city—all exhibit these characteristics and are suitable for temporary commercial interventions such as pop-up markets.

(3) Intervention Objectives

The implementation of the economic incubation type aims to achieve the following core objectives:

① Space Activation: Provide low-cost, rapidly deployable primary economic operation venues to activate spatial utilization;

② Operation: Support start-ups, individual entrepreneurs, and small brands in achieving rapid entry and low-risk operation;

③ Aggregation: Promote phased aggregation of diverse commercial activities within

the space, providing experimental data feedback and practical foundations for future functional positioning;

④ Sustainable Development: Attempt to construct a transitional pathway from "space utilization" to "business transformation," facilitating the evolution of Olympic Village spaces toward sustainable operational structures.

3.3.5 Ecological Environment Type

(1) Intervention Logic

The ecological environment type focuses on improving weak links in the ecological environment as its core objective, adopting environmentally friendly materials and construction methods combined with flexible, mobile, modular, and reusable facilities or units to rapidly improve areas lacking ecological functions within the space. For instance, using recyclable materials and easily dismantled construction methods to reduce environmental pollution, while introducing sustainable infrastructure such as mobile gardens, greening modules, and permeable paving to improve environmental quality, alleviate environmental load, and enhance the space's comprehensive capabilities in regulating microclimate, biodiversity conservation, and other aspects.

(2) Applicable Scenarios

The ecological introduction type is applicable to spaces within the Olympic Village where ecological functions need improvement or environmental quality is poor. For example, abandoned hardened ground spaces or land lacking green areas.

(3) Intervention Objectives

The ecological introduction type is primarily committed to achieving the following objectives:

① Environmental Protection and Ecological Improvement: Reduce environmental pollution while restoring or enhancing natural functions, improving the site's ecological adaptability;

② Climate Regulation: Achieve increased green coverage, stormwater retention, and ecological self-circulation through low-intervention methods, improving local climate and environmental quality;

③ Public Awareness Enhancement: Provide habitats for wildlife and ecological education spaces, enhancing public awareness and participation in ecological conservation;

④ Experimental Site Provision: Provide preliminary experimental and implementation foundations for subsequent ecological transformation or green infrastructure

planning, promoting the phased achievement of ecological objectives.

3.4 Regeneration Strategies

After completing the systematic diagnosis of spatial issues in the Olympic Village and proposing five types of temporary interventions, the next critical task of this research is to construct an operational strategy system to serve as the design content support for the temporary transformation of the Olympic Village. Compared to "intervention types" which focus on functional-level responses to spatial problems, "strategy types" further concentrate on the organizational logic, implementation characteristics, and operational details of specific spatial interventions, representing the step of transformation from "types" to specific "design methods."

To avoid subjective judgment or empiricism in the classification process of "strategy types," this research establishes a strategy extraction path based on empirical case induction, building upon the previously defined five types of temporary interventions. The core of this path lies in: how to use "intervention types" as an analytical framework to identify typical practices from representative temporary use cases globally, extract their spatial operation prototypes, and on this basis, summarize transferable and referential strategy types, thereby providing empirical evidence for subsequent strategy design.

The specific content includes two interrelated components: first, the classification basis for cases, i.e., how to categorize cases based on intervention types; second, the extraction of strategic elements from typical cases, i.e., how to abstract universal strategies from specific practices.

3.4.1 Case Classification Basis

This research first uses the five types of temporary interventions constructed earlier—cultural activation type, activity and leisure type, social service type, economic incubation type, and ecological environment type—as the basic analytical framework to select and preliminarily categorize temporary use cases globally. In this process, the focus is on identifying the core spatial problems addressed by each case and its dominant intervention logic, clarifying its functional category. For example, if a case primarily aims to enhance spatial cultural atmosphere and emotional resonance among people, it is classified as "cultural activation type."

This classification step not only provides a structured foundation for subsequent strategy extraction but also ensures analytical internal consistency at the methodological level: that is,

cases compared under the same intervention type all address similar problem dimensions (such as cultural deficiency, service absence, etc.) and pursue similar functional goals (such as cultural dissemination, economic activation, etc.). Thus, it avoids the confusion that might result from cross-type mixed analysis, laying a solid foundation for subsequently abstracting comparable and transferable strategy prototypes from cases.

3.4.2 Case Prototype Extraction

The key to prototype extraction lies in systematically summarizing dispersed case characteristics to form a comparable and operational analytical framework for guiding subsequent specific design strategies. Based on extensive case analysis and combined with a spatial design perspective, this research summarizes four practically oriented extraction dimensions:

(1) Spatial Organization Type

In prototype extraction, the spatial organization methods dimension not only emphasizes how temporary strategies are embedded within existing site structures but also emphasizes their functional types in spatial and temporal dimensions. According to Oswalt's classification in *Urban Catalyst*, the long-term impacts of temporary use on site development can be summarized into the following eight types[7]:

Stand in, Impulse, Consolidation, Coexistence, Parasitic, Subversion, Pioneer, Displacement. Combining Oswalt's research on the temporal dimension with Chinese scholar Liu Qianru's research on the ways temporary strategies are embedded in sites[37], this research summarizes the relationship between temporary use activities and sites into the following five types (Table 3-1):

① Stand in Type

Directly placing temporary facilities or functions in any location on the site, merely replacing the original use function for a limited time. For example, the "Magic Carpet" project transformed the steep public space in Sai Ying Pun, Hong Kong, into an open-air cinema using lawns and movable cushions, providing citizens with a venue for collective viewing and communication. This approach emphasizes rapid intervention and the creation of strong place identity.

② Subversion Type

Unlike the temporary storage type, the displacement type emphasizes that temporary functions will long-term replace the original use function, even permanently replacing the original function and changing its nature of use. For example, the "Gaegerviertel" project

prevented the demolition of 12 historic buildings through occupation by artist groups and transformed them into cultural activity centers.

③ Coexistence Type

While retaining the original function, superimposing temporary activities or facilities, allowing them to exist parallel to existing functions with little or no physical intersection. For example, "Spitalfield Market" added multifunctional temporary platforms and retail areas within a 300-year-old fruit and vegetable market, enriching the space's usage frequency and functional layers.

④ Parasitic Type

Attaching to existing buildings or facilities, introducing new functions through partial embedding. For example, Ostbahnhof Market combined a swimming pool and sunbathing platform within a fresh market in front of an abandoned train station, forming a composite leisure area.

⑤ Pioneer Type

Pilot temporary use conducted before large-scale site renewal, aimed at testing site potential and stimulating public interest, which may subsequently develop into long-term use.

Through analysis of these five types of relationships between temporary use and sites, different temporary activities' embedding methods within spatial structures can be more precisely judged, providing an intuitive spatial logic foundation for subsequent strategy design.

Table 3-1 Relationship Between Temporary Use and Sites

Type	Illustration	Description
Stand in Type		Temporarily replaces original functions within a limited timeframe
Subversion Type		Permanently replaces original functions
Coexistence Type		Coexists alongside existing functions
Parasitic Type		Localized integration into existing spaces
Pioneer Type		Pilot-scale temporary use for testing

Source: Author's own drawing

(2) Installation Types and Intervention Forms

In the implementation process of temporary strategies, installation types and intervention forms directly affect the flexibility, usage cycle, and functional adaptability of spatial transformation.

① Temporary Facility Types

Temporary facilities typically feature low cost, rapid installation, and reusability, including stages, containers, lightweight sheds, greening modules, movable display boards, etc. Such facilities can be quickly adjusted and combined according to activity types and spatial needs, meeting the functional requirements of temporary activities while providing physical carriers for flexible spatial reuse.

② Intervention Forms

Intervention forms can be categorized into three types: fixed, mobile, and easily assembled/disassembled:

a. Fixed type: Suitable for medium to long-term use, emphasizing stability and durability, such as immovable stages or embedded seating.

b. Mobile type: Emphasizes flexibility in positional adjustment, allowing arrangement according to different activities or seasonal needs, such as cart-style vending stalls, movable flower boxes, etc.

c. Easily assembled/disassembled type: Suitable for periodic activities or phased use, allowing rapid dismantling after activities and reuse in other locations, such as modular exhibition sheds, quick-assembly stages, etc.

(3) Atmosphere and Functional Experience

Temporary strategy intervention concerns not only physical spatial reconstruction but also the shaping of atmosphere and functional experience, a dimension that directly determines users' willingness to participate and the depth of place perception.

① Dominant Function

Refers to the core activity type carried by the space during specific time periods, such as cultural exhibitions, leisure communication, sports and fitness, commercial markets, etc. Clarifying the dominant function helps establish clear activity orientation during design and layout processes, thereby avoiding reduced usage efficiency caused by functional dispersion.

② Atmosphere Shaping Methods

Atmosphere shaping is a key link in creating attractiveness through temporary strategies, achievable through elements such as color, lighting, signage systems, and artistic installations. For example, warm lighting and soft decorations are suitable for community gatherings and

festive activities; cool colors and geometric lighting are more appropriate for sports and nighttime exhibitions. Atmosphere shaping not only affects users' emotional experience but also strengthens spatial functional recognition.

③ Interactivity and Participation

Interactivity reflects the degree of two-way communication between space and users, categorizable into one-way use (such as fixed seating), interactive experience (such as participatory installations in temporary exhibitions), and participatory modification (such as co-construction and maintenance of community gardens). Highly interactive designs often promote users' emotional investment and sustained participation, thereby enhancing the long-term vitality of places.

(4) Operation and Maintenance Methods

The sustainability of temporary strategies depends not only on the physical conditions of the space itself but also on scientifically reasonable operation and maintenance mechanisms. The design of operational methods should fully consider factors such as usage cycles to ensure stable operation and continuous activation of spaces after opening.

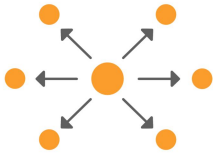
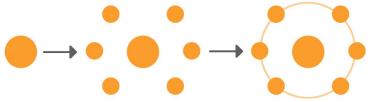
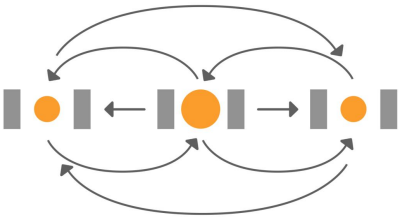
Usage cycle refers to the duration of temporary space opening and operation, categorizable into three types: short-term pop-ups, periodic openings, and long-term temporary use. Short-term pop-ups are suitable for promotional activities, art exhibitions, and other immediate events; periodic openings are often linked to festivals, tourism peak seasons, or climatic conditions; long-term temporary use is applicable to transitional utilization of spaces awaiting renovation or implementation of planning. Cycle determination should combine site conditions and target functions to maximize benefits.

3.5 Subsequent Development Models

Although temporary strategies are often implemented within specific timeframes and scenarios, they frequently generate significant spatial activation effects and social value. However, their significance extends beyond the short-term intervention itself. How to sustain spatial vitality after activities conclude, realize the reuse of temporary strategy outcomes, and further expand their long-term influence has become a critical issue in temporary urban intervention design.

Based on a systematic review of global practical cases, this research categorizes the subsequent development of temporary projects according to their evolutionary pathways after conclusion, summarizing them into the following six typical patterns:

Table 3-2 Subsequent Development Patterns

Mode	Illustration	Description
Scattered Replication Mode		Replicating identical practices across different regions
Relay Diffusion Mode		Sequential implementation across regions through handover
Point to Area Expansion Mode		Replicating practices while forming systemic networks across regions
Direct Termination Mode		No further development after conclusion
Persistence Mode		Transformation into long-term temporary facilities
Circular Reuse Mode		Recirculation of materials, components, or concepts

Source: Author's own drawing

(1) Scattered Replication Mode

When a temporary pilot project receives positive social feedback and accumulates effective operational experience during implementation, its characteristics of low cost, ease of implementation, high adaptability, and strong dissemination create conditions for scaled promotion. On this basis, influence can be diffused across regions by replicating structurally similar and logically consistent approaches in different areas. The core of this mode (Scattered Replication Mode) lies in the standardization of strategies and the transferability of spatial operations, that is, flexibly adapting to local environments while preserving core mechanisms.

This pathway not only reduces the trial-and-error costs of public space innovation but also strengthens public awareness and willingness to participate in new spatial uses through repeated practice. Typical cases include Park(ing) Day and Palletscape: the former originated as a temporary art intervention transforming a single parking space into a micro-park,

subsequently evolving rapidly into a multi-regional civic action; the latter utilizes modular pallet installations to quickly construct temporary spaces for rest, social interaction, or cultural display across different cities, demonstrating high material universality and spatial flexibility.

(2) Relay Diffusion Mode

Relay-style temporary projects led by professional teams or institutions constitute an important continuation mode (Relay Diffusion Mode). Its core lies in systematically "packaging" verified design content, technical equipment, organizational processes, and operational experience into a set of mobile implementation modules that are sequentially implemented in different cities or sites. While maintaining continuity in creative concepts and brand identity, this mode also emphasizes adaptive adjustment to specific local spatial conditions, thereby achieving flexible operational mechanisms.

Such strategies not only reduce the costs of repetitive development but also accumulate rich local collaboration experience through cross-regional practice, enabling projects to maintain overall narrative consistency while responding to local needs. Typical cases include "100 JAHRE REVOLUTION" and BMW Guggenheim Lab.

(3) Point to Area Expansion Mode

This mode (Point to Area Expansion Mode) uses small-scale pilot projects as initial catalysts, gradually expanding their coverage through phased iterations based on verified feasibility, ultimately evolving into an update network or system spanning multiple blocks or even urban districts. This "point-to-area" evolutionary pathway not only helps cultivate long-term, stable local identity and social relationships but also shapes recognizable regional brands or cultural labels through continuous practice, thereby enhancing community development capacity.

However, such incremental expansion imposes higher demands on resource coordination, organizational resilience, and institutional support: it requires sustained financial and human investment and depends on professional teams or community entities possessing long-term operational and multi-party collaborative management capabilities. Therefore, its success often rests on strong local alliances, flexible governance mechanisms, and inclusive policy environments. Typical cases include Better Block and The Cineroleum.

(4) Direct Termination Mode

Some temporary strategies are explicitly defined from the initial planning stage as one-time, event-oriented, or experimental short-term interventions. Their core objective is not

to pursue long-term sustainability but rather to focus on immediate presentation of specific themes, testing of spatial design, or expression of social issues. After completing predetermined tasks (such as public participation experiments, design concept validation, cultural narrative transmission, or policy advocacy) and achieving expected impact, such projects exit in an orderly manner according to preset pathways without seeking physical or functional continuity.

The key characteristic of this "planned temporality" mode (Direct Termination Mode) is: embedding a clear exit strategy at the project initiation stage, including demolition plans, material recycling schemes, or space return agreements. This proactive arrangement not only avoids resource dispersion but also ensures that human resources, funding, and attention are highly concentrated on achieving core objectives, thereby enhancing the precision and experimental efficiency of interventions. Although their physical presence is brief, the conceptual inspiration, data feedback, or public discussions they generate often constitute an important foundation for subsequent policy adjustments or long-term updates. Typical cases include Folly for a Flyover and Poplar Assembly.

(5) Persistence Mode

The Persistence Mode represents a stable development pathway formed by temporary spaces during long-term operation. Its characteristic lies in temporary facilities no longer serving one-time or short-term pop-up purposes, but rather maintaining a longer-term presence within the site and gradually integrating into the regional spatial structure and economic system. Under this mode, installations originally intended as pilots, prototypes, or experimental uses gain stable clientele and economic returns through continuous operation, ongoing updates, or functional iterations, evolving from "temporary occupation" to "semi-permanent facilities."

Facility types in this mode are often mobile or easily assembled/disassembled container units, converted vehicles, or lightweight structures, achieving long-term operational feasibility with relatively low maintenance costs. Over time, these facilities may continuously update through adding service functions, improving environmental ambiance, introducing new business formats, and other means, forming a dynamically evolving spatial system.

The core value of the Persistence Mode lies in: it not only extends the lifecycle of temporary spaces but also transforms temporary interventions into stable engines driving regional economic vitality. By continuously serving local residents and visitors, this mode strengthens spatial memory, brand recognition, and place attractiveness, thereby achieving

transformation from "temporary activation" to "long-term incubation." A typical case is the Faralda Crane Hotel.

(6) Circular Reuse Mode

The Circular Reuse Mode emphasizes that after temporary projects conclude, materials, components, or concepts can continue to circulate and participate in urban or community spatial renewal. The core of this mode lies not only in the physical continuity of temporary facilities within sites but also in the continuity of their material components and conceptual value.

After project conclusion, structural components, materials, or modular units employed by installations are dismantled and reused in other scenarios, achieving resource reuse, extended lifecycle, and reduced environmental burden. Simultaneously, the Circular Reuse Mode also encompasses inheritance at the conceptual level: through knowledge dissemination, resident education, or reproduction of activity experiences, the project's ecological awareness, community participation methods, spatial operation mechanisms, and other elements can continue to influence subsequent practices. Some projects' circular reuse activities also serve regional environmental or economic objectives, such as replanting vegetation in urban public spaces, recycling structural materials for new construction projects, or reinforcing the city's sustainable development image through reuse practices.

This subsequent development approach not only embodies resource conservation and environmental responsibility but also provides temporary intervention projects with more profound significance and deeper sustainability. A typical case is Poplar Assembly: after the project concluded, its core element—the living poplar trees—were replanted in urban or community renewal sites, continuing to serve ecological and landscape functions; simultaneously, components processed from these poplar trees were incorporated as reusable installation materials into subsequent temporary projects. This practice not only achieved closed-loop circular reuse at the material level but also enabled the project's ecological concepts and spatial narratives to continuously extend across temporal and spatial dimensions.

3.6 Chapter Summary

This chapter establishes a methodological framework for the temporary renewal of Olympic Village heritage, grounded in typological analysis and problem diagnosis. First, a typological identification system is constructed through four-dimensional classification encompassing architectural style, site selection type, reuse approach, and temporary strategy

typology. Subsequently, the problem diagnosis section is developed across two dimensions—problem dimensions and diagnostic methods—to identify spatial issues across cultural, ecological, and other dimensions. Building upon this foundation, five categories of intervention strategies are proposed: "Culture—Activities—Social Services—Economy—Ecology." Finally, six sustainable development modes are synthesized (such as Scattered Replication, Relay Diffusion, Point-to-System Expansion, etc.), emphasizing their practical characteristics of adaptability, iterability, and circularity. This framework provides structured instrumental support for translating temporary urbanism from conceptual theory into tangible implementation.

Chapter4 Research on Temporary Reuse of Olympic Villages Across Editions

As a crucial spatial carrier of the Olympic Movement, the planning and construction process of Olympic Villages not only reflects the socioeconomic contexts and technological conditions of different historical periods but also mirrors the evolution of urban development philosophies, architectural trends, and international political landscapes. From the establishment of simple athlete camps at the 1924 Paris Olympics to the sustainable renewal concepts proposed for the 2024 Paris Olympic Village, Olympic Villages have gradually evolved from singular competition-service facilities into comprehensive complexes integrating residential, communicative, and exhibition functions.

This chapter conducts a systematic review and comparative study of Olympic Villages across both Winter and Summer Games, commencing with the first step of the spatial renewal process proposed in Chapter 3—"Typological Identification." It focuses on examining the site selection, post-Games utilization models, and typologies of temporary strategies of Olympic Villages, revealing their characteristics across different historical stages. The aim is to provide empirical evidence and reference frameworks for the renewal strategies discussed in subsequent chapters.

4.1 Analysis of Overall Conditions of Olympic Villages

To comprehensively uncover the developmental patterns of Olympic Villages across architectural styles, site selection, post-Games utilization, and temporary strategies, this study first conducts statistical analysis of key characteristics based on systematic data from all Olympic Villages. Building upon this foundation, Cluster Analysis is further employed to categorize and classify the samples, aiming to identify representative typologies of Olympic Village site selection and reuse approaches.

4.1.1 Overview of Olympic Villages

This section systematically reviews and categorizes the construction of Olympic Villages across both Summer and Winter Games, based on the developmental framework of Olympic Villages proposed in Section 2.2.2. This framework divides the evolution of Olympic Villages into several typical historical phases: the "Temporary Accommodation Period" (1896–1928), the "Exploration Period" (1932–1936), the "Initial Development Period" (1948–1956), the "Comprehensive Development Period" (1960–1976), and the "Sustainable Development

Period" (1980–2024). Each phase exhibits distinct evolutionary characteristics in architectural style, site selection, and post-Games utilization (see Appendix 1 for details).

4.1.2 Analysis of Characteristics Across Olympic Villages

Based on the data compilation of Olympic Villages across editions (Appendix 1), this study first analyzes their key characteristics to visually present the overall trends and structural features of Olympic Village construction across different developmental stages. This approach not only clarifies the evolutionary trajectory of Olympic Villages from "temporary" to "sustainable" but also lays the foundation for subsequent quantitative research.

Figure 4-1 illustrates the proportional distribution of Olympic Villages across different developmental stages. The "Sustainable Development Period" accounts for the highest proportion, exceeding 40%, indicating the growing prominence of ecological concepts and sustainable strategies in recent years. Investment in green, low-carbon practices and long-term utilization has significantly increased in Olympic Village construction. The "Temporary Accommodation Period" and "Comprehensive Development Period" follow closely, accounting for approximately 20% and 18% respectively, reflecting the extended developmental cycles experienced during the early exploratory phase and the mid-stage systematic construction phase. In contrast, the "Exploration Period" and "Initial Development Period" represent relatively smaller proportions at approximately 7% and 13% respectively, suggesting that these two phases served primarily as transitional and rapid development stages.

Figure 4-2 presents the distribution of Olympic hosting frequencies across cities. Overall, the majority of cities have hosted the Olympics only once, demonstrating the increasingly widespread global distribution of the Games and the diversification and internationalization of hosting rights. However, a small number of cities have hosted the Olympics multiple times—for instance, London and Paris have each hosted three editions, establishing themselves as "veteran Olympic cities" with mature hosting experience and well-developed infrastructure. Their repeated selection reflects comprehensive advantages in urban functionality, infrastructure, and international influence.

Figure 4-3 displays the proportional distribution of Olympic Villages across architectural styles and urban planning philosophies. In terms of architectural style, "Apartment Block" accounts for the highest proportion at over 60%, establishing itself as the predominant form in Olympic Village construction, while "Detached House" represents the lowest proportion at less than 10%.

Figure 4-4 illustrates the proportional distribution of site selection types across Olympic Villages. Overall, "Borrowed Facilities" ranks first with 17 occurrences, indicating that temporary, low-cost spatial resources dominate current deployment practices. Closely following is "Suburban Area" with 14 occurrences, reflecting that the trade-off between land availability and construction costs remains a critical factor in site selection decisions. Notably, "Former Industrial Site" ranks third with 6 occurrences, surpassing "Urban Area" (5 occurrences) and "Mountain Area" (4 occurrences), suggesting that "industrial site redevelopment" has emerged as a practical pathway in certain projects, though it has yet to become a mainstream model. In comparison, other categories exhibit generally low frequencies: including "Slum Area," "Former Airport Site," "Former Police Academy Site," "Former Sanatorium Site," and "Borrowed and Newly Built Facilities," each with ≤2 occurrences. This indicates that the application of sites with special historical or socioeconomic contexts remains in the exploratory phase, constrained by factors such as complex property rights, environmental remediation requirements, or functional adaptability.

Figure 4-5 presents the proportional distribution of post-Games reuse types across Olympic Villages. Overall, conversion to "Residential Area" is the most prevalent (19 cases), reflecting that residential transformation has become the dominant pathway for post-Games transition under the drivers of urban renewal and housing demand. "Restore to Original" follows closely (15 cases), embodying the sustainable utilization philosophy of "minimal intervention and low cost." These two models collectively account for over 60% of cases, dominating the current landscape of Olympic Village reuse. Other types—such as "Community Facilities" and "Turned into Park"—each appear in no more than 5 cases, indicating that diversified, public-benefit-oriented, and culturally-driven reuse practices remain relatively limited. Notably, "Demolish" and "Reuse of Building Materials" together account for 5 cases, highlighting that certain projects were designated as temporary facilities from the planning stage. Their post-Games disposal methods provide empirical reference for this study's investigation of temporary strategies in Olympic Villages.

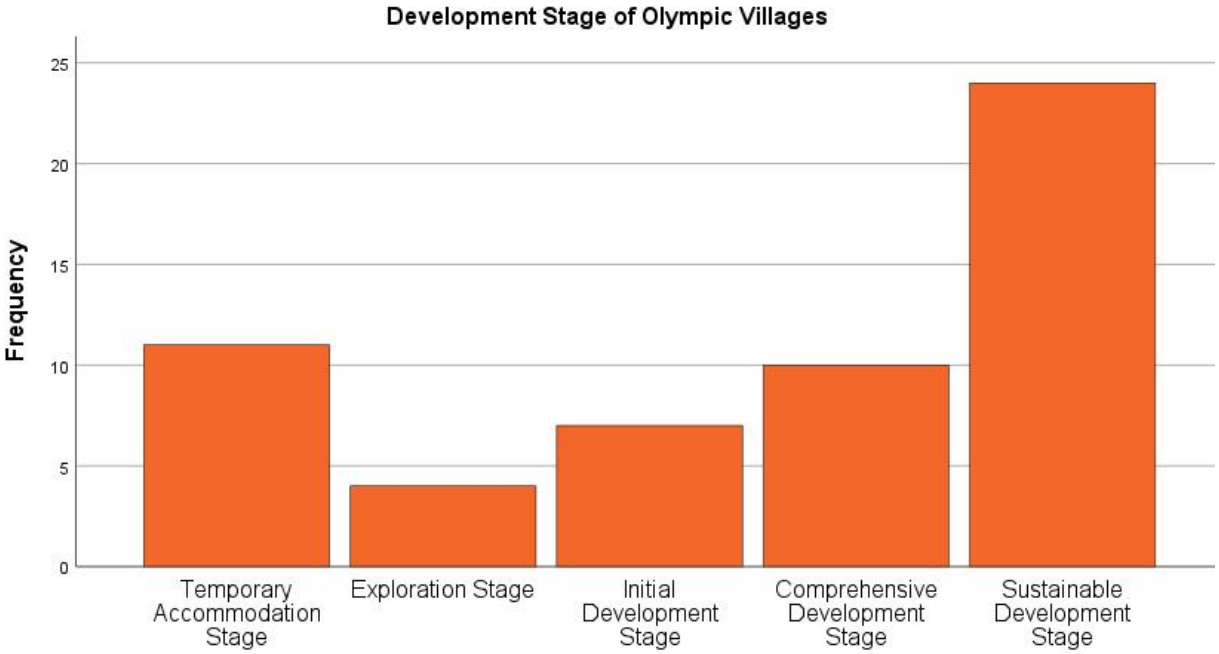


Figure 4-1: Proportional Distribution of Olympic Villages Across Developmental Stages

Source: Author's own drawing

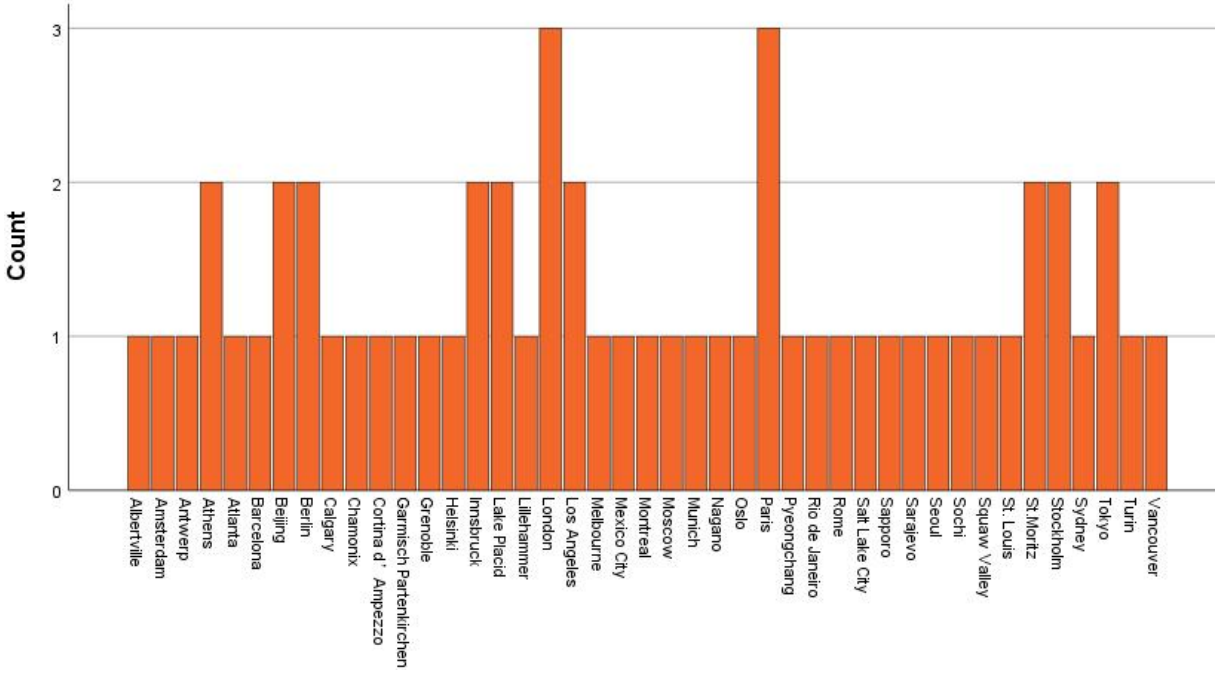


Figure 4-2: Frequency of Olympic Hosting by Cities Across Editions

Source: Author's own drawing

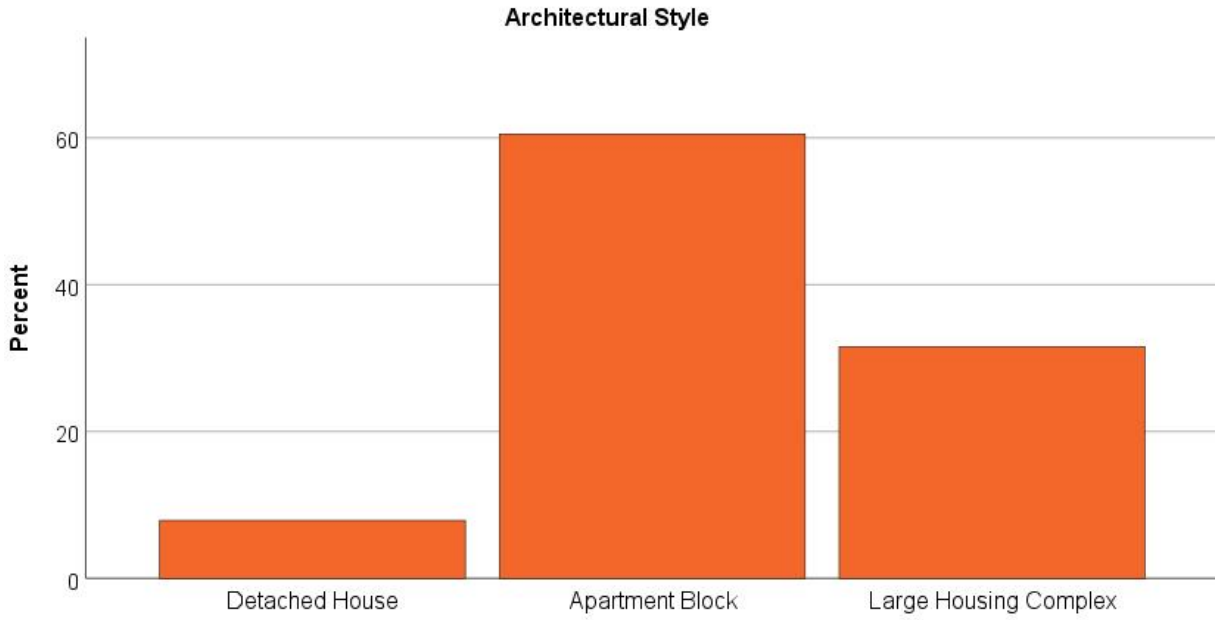


Figure 4-3: Proportional Distribution of Architectural Styles

Source: Author's own drawing

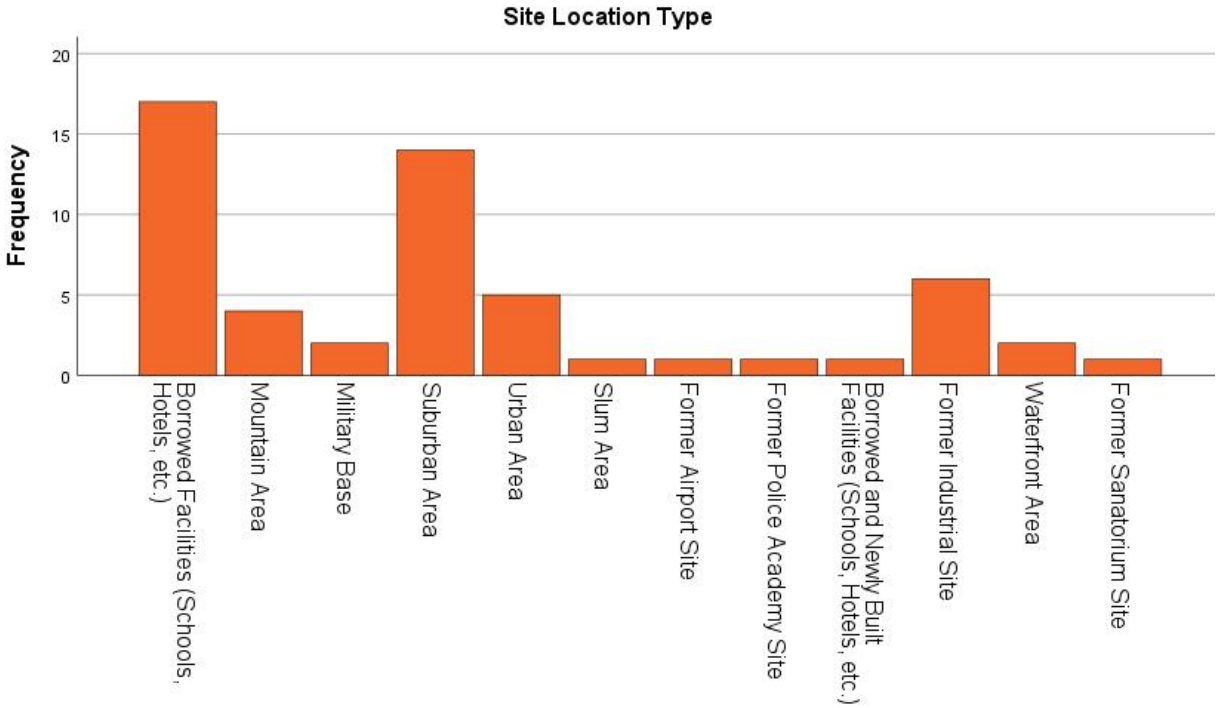


Figure 4-4: Proportional Distribution of Olympic Village Site Selection Types

Source: Author's own drawing

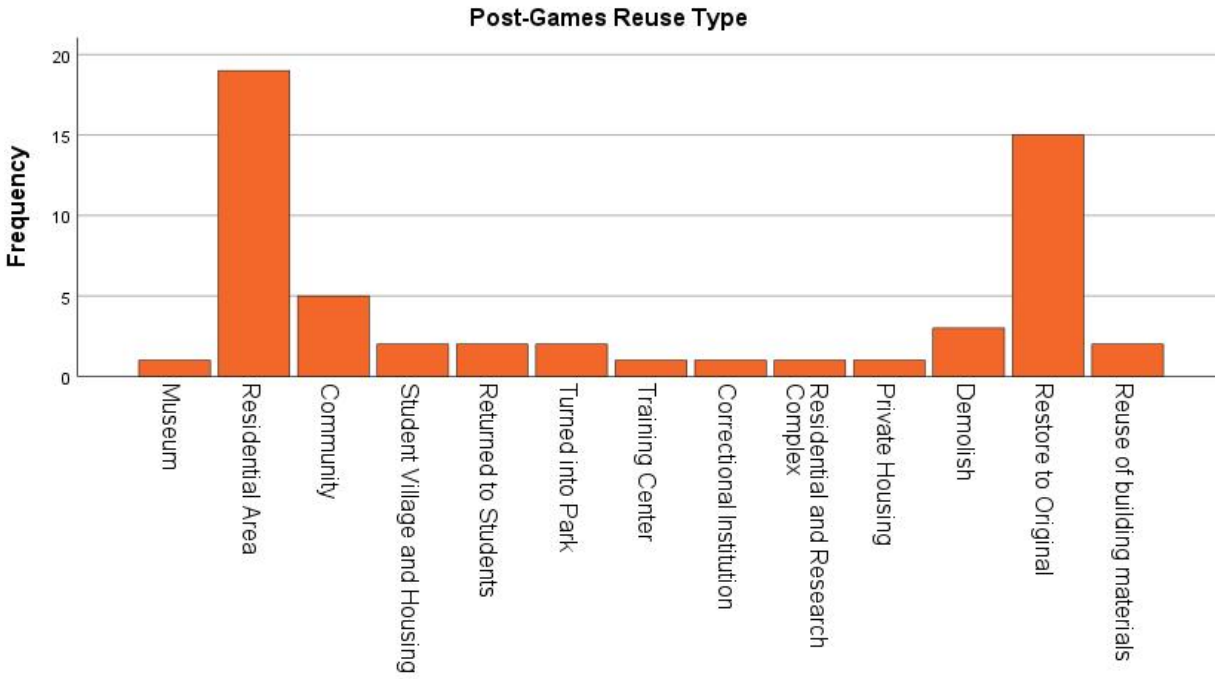


Figure 4-5: Proportional Distribution of Post-Games Reuse Types for Olympic Villages

Source: Author's own drawing

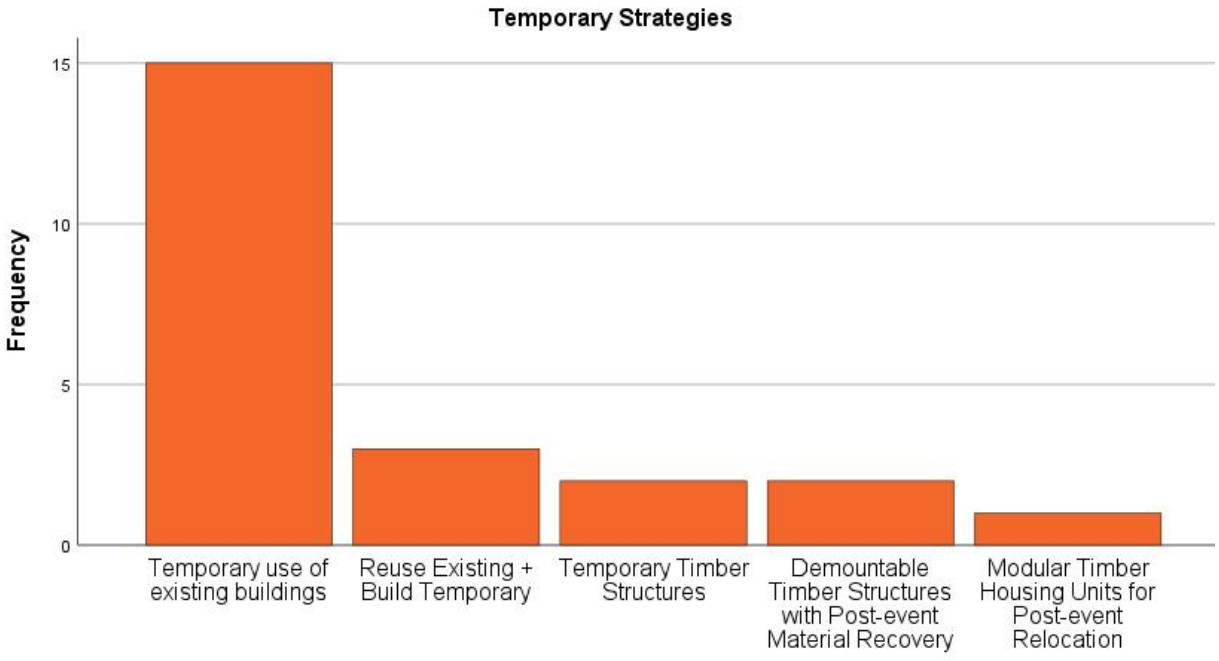


Figure 4-6: Proportional Distribution of Temporary Strategy Types

Source: Author's own drawing

Figure 4-6 illustrates the proportional distribution of different temporary strategy types across Olympic Village cases. Overall, "Temporary Use of Existing Buildings" ranks highest with 15 instances, significantly exceeding other strategies. This reflects the current pragmatic

approach in large-scale event planning that prioritizes "minimal retrofitting and rapid deployment"—namely, leveraging existing stock buildings (such as schools, factories, warehouses, etc.) through functional adjustments to meet competition-period requirements, while maintaining post-event flexibility to revert to original functions or transition into interim spaces. This approach effectively circumvents new construction costs and idling risks.

Following this, "Reuse Existing + Build Temporary" (3 instances) and "Temporary Timber Structures" (2 instances) collectively account for 5 cases, demonstrating the initial application of modular and lightweight construction concepts in practice. Meanwhile, "Demountable Timber Structures with Post-event Material Recovery" (2 instances) and "Modular Timber Housing Units for Post-event Relocation" (1 instance), though representing smaller proportions, emphasize material reversibility, component reusability, and spatial flexibility—aligning with green construction trends under the carbon neutrality paradigm.

Overall, temporary strategies exhibit three core characteristics: "stock-first, incremental-cautious, and circular-utilization." The high-frequency pattern of temporary use of existing buildings not only validates the pragmatic choice under resource constraints during event preparation periods but also provides empirical support for this study's central thesis that "temporariness does not equate to disposability." In other words, temporary strategies themselves can embody long-term value, contingent upon synergistic innovation in institutional design and technological pathways.

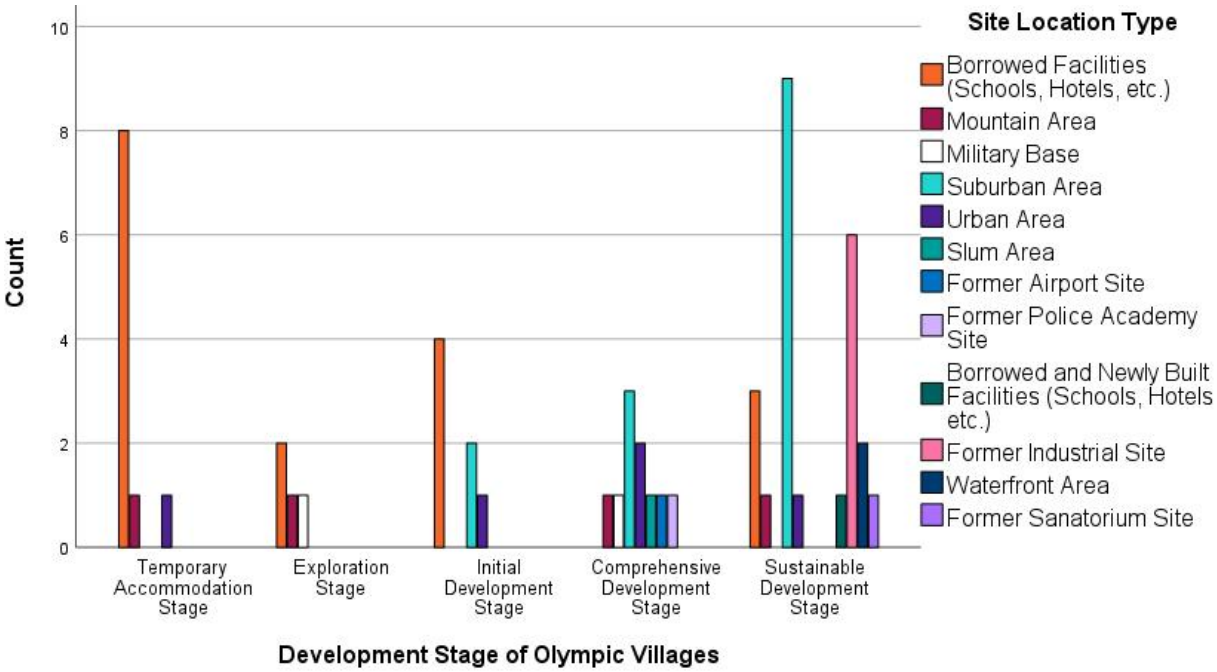


Figure 4-7: Proportional Distribution of Site Selection Types Across Developmental Stages

Source: Author’s own drawing

Table 4-1 Chi-square Test and Association Strength Measures

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	59.921[a]	44	.055
Likelihood Ratio	63.056	44	.031
Linear-by-Linear Association	19.842	1	<.001
N of Valid Cases	55		

a. 58 cells (96.7%) have expected count less than 5. The minimum expected count is .07.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	1.044	.055
	Cramer's V	.522	.055
N of Valid Cases		55	

Source: Author’s own drawing

Figure 4-7 and Table 4-1 jointly illustrate the distribution characteristics of Olympic Village site selection types across different developmental stages and their statistical association strength. Regarding the Chi-square test results, $p = 0.055 > 0.01$, and 96.7% of cell expected frequencies are less than 5, which severely violates the fundamental assumptions of the Chi-square test. Consequently, this result is deemed unreliable. Given this limitation, this study relies solely on frequency distribution and visual analysis for descriptive interpretation.

Overall, the Temporary Accommodation Stage exhibits a pronounced concentration on "Borrowed Facilities," with 8 instances accounting for a significantly leading proportion. This highlights the stage's core emphasis on "minimal retrofitting and rapid deployment"—achieving competition-period emergency support through the integration of urban stock public service and commercial spaces (such as student dormitories and hotel rooms), while also reflecting the prioritization of temporality and functional adaptability in early Olympic Village planning.

During the Exploration Stage, site selection begins to shift toward "Mountain Area" and "Military Base," indicating that construction activities started to venture beyond urban cores. However, these selections exhibit distinct era-specific and exploratory characteristics. Notably, the proportion of "Borrowed Facilities" significantly decreases during this stage, marking a transitional shift in planning philosophy from pure reliance on existing stock toward tentative exploration of a "stock + increment" approach.

Upon entering the Initial Development Stage and Comprehensive Development Stage, "Suburban Area" gradually emerges as the predominant type, reflecting the expansion of Olympic Village planning toward urban peripheries to alleviate land-use pressure in central districts. In the Sustainable Development Stage, site selection characteristics distinctly concentrate on "Former Industrial Site" and "Suburban Area," demonstrating that Olympic Villages have evolved into crucial catalysts for urban renewal of obsolete districts and suburban land expansion in contemporary city-building practices.

Figure 4-8 and Table 4-2 illustrate the distribution characteristics of architectural style types in Olympic Villages across different developmental stages and their statistical associations. The Chi-square test results indicate that 75% of cell expected frequencies are less than 5, which severely violates the fundamental assumptions of the Chi-square test. Consequently, the significance results are deemed unreliable. Given this limitation, this study relies solely on frequency distribution and visual analysis for descriptive interpretation.

As shown in the figure, Olympic Village architectural styles exhibit distinct characteristics across various developmental stages. During the early Exploration Stage and Initial Development Stage, Detached Houses and Apartment Blocks predominate, reflecting the initial emphasis on temporality and human-scale design in Olympic Village construction. Upon entering the Comprehensive Development Stage, Large Housing Complexes begin to emerge extensively, demonstrating the pursuit of residential density and spatial efficiency in the urbanization process. In the Sustainable Development Stage, Apartment Blocks once again become the dominant type, with quantities far exceeding other forms, indicating that contemporary Olympic Villages tend to achieve a balance among low-carbon development, energy efficiency, and economic considerations.

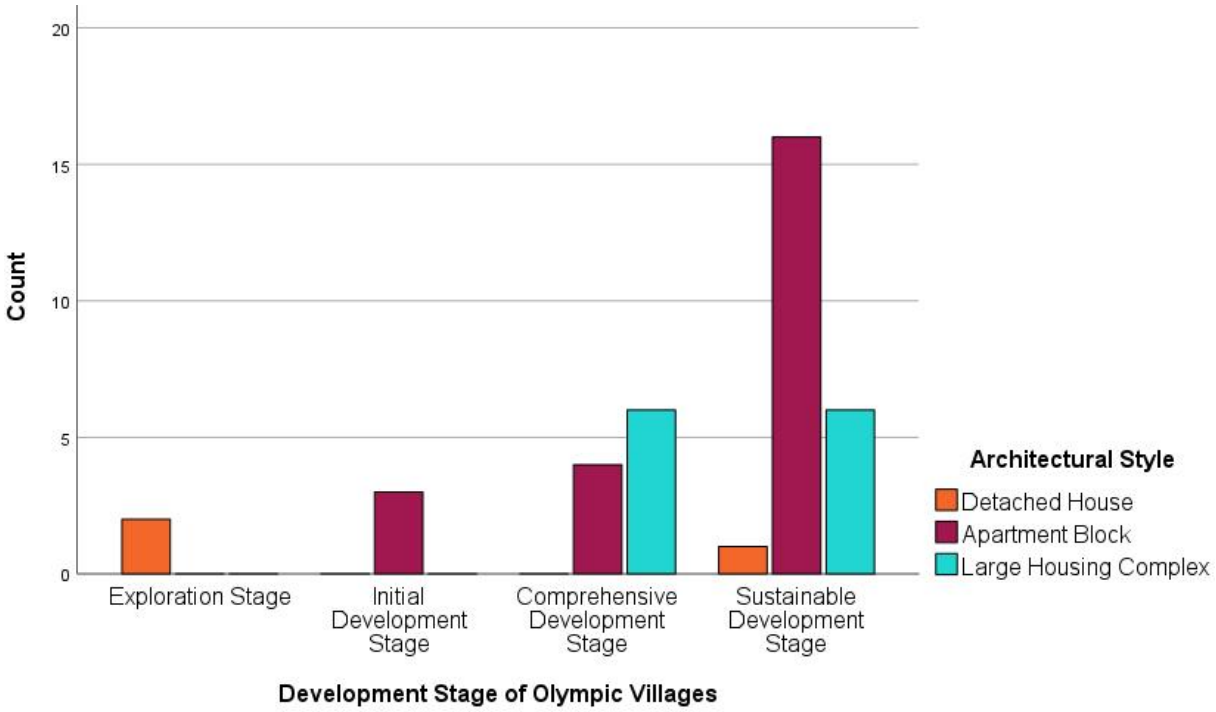


Figure 4-8: Proportional Distribution of Architectural Style Types Across Developmental Stages

Source: Author's own drawing

Table 4-2 Chi-square Test and Association Strength Measures

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	30.230[a]	6	<.001
Likelihood Ratio	18.525	6	.005
Linear-by-Linear Association	2.863	1	.091
N of Valid Cases	38		

a. 9 cells (75.0%) have expected count less than 5. The minimum expected count is .16.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.892	<.001
	Cramer's V	.631	<.001
N of Valid Cases		38	

Source: Author's own drawing

Figure 4-9 and Table 4-3 illustrate the distribution characteristics of post-Games reuse types in Olympic Villages across different developmental stages and their statistical associations. Regarding the Chi-square test results in the table, although $p = 0.006 < 0.01$, 96.9% of cell expected frequencies are less than 5, which severely violates the fundamental assumptions of the Chi-square test. Consequently, the significance results are deemed unreliable. Given this limitation, this study relies solely on frequency distribution and visual analysis for descriptive interpretation.

As illustrated in the figure, post-Games utilization patterns of Olympic Villages exhibit significant characteristics across different developmental stages.

During the early Temporary Accommodation Stage, reuse types are highly concentrated in two categories: one is "Restore to Original" with 8 instances (80.0%), such as student dormitories returned to educational systems and hotel rooms restored to commercial operations; the other is "Demolish" with 2 instances (20.0%), mostly involving simple structures. Notably, not a single case transitioned to new functional purposes. This pattern reflects the essential positioning of early Olympic Villages—as "demountable event plugins" designed primarily for competition-period emergency use, where post-event return to original systems represents the most cost-effective and socially least resistant option.

During the Exploration Stage, one attempt emerged to convert Olympic Village facilities into a Museum, symbolically integrating Olympic heritage into the cultural narrative system. However, this practice remained an isolated experiment and had not yet formed a replicable reuse paradigm. In fact, this stage witnessed relatively few genuine "reuse" behaviors; instead, accommodation needs were primarily met through requisitioning existing buildings, which were generally returned post-event.

Entering the Initial Development Stage, reuse patterns such as Residential Areas, Communities, and Student Villages and Housing began to appear, though quantities remained limited. This reflects that while the concept of post-Games reuse had begun to gain initial popularity, practical implementation remained immature. By the Comprehensive Development Stage, Residential Areas became the dominant reuse form, marking a trend toward permanent residential functionality transformation in Olympic Villages. In the Sustainable Development Stage, residential purposes continue to dominate, while diverse reuse types such as Communities, Residential and Research Complexes, and Correctional Institutions have emerged, demonstrating an evolutionary trend toward compound and diversified post-Games utilization. This evolution highlights active exploration of the long-term spatial value of Olympic Villages.

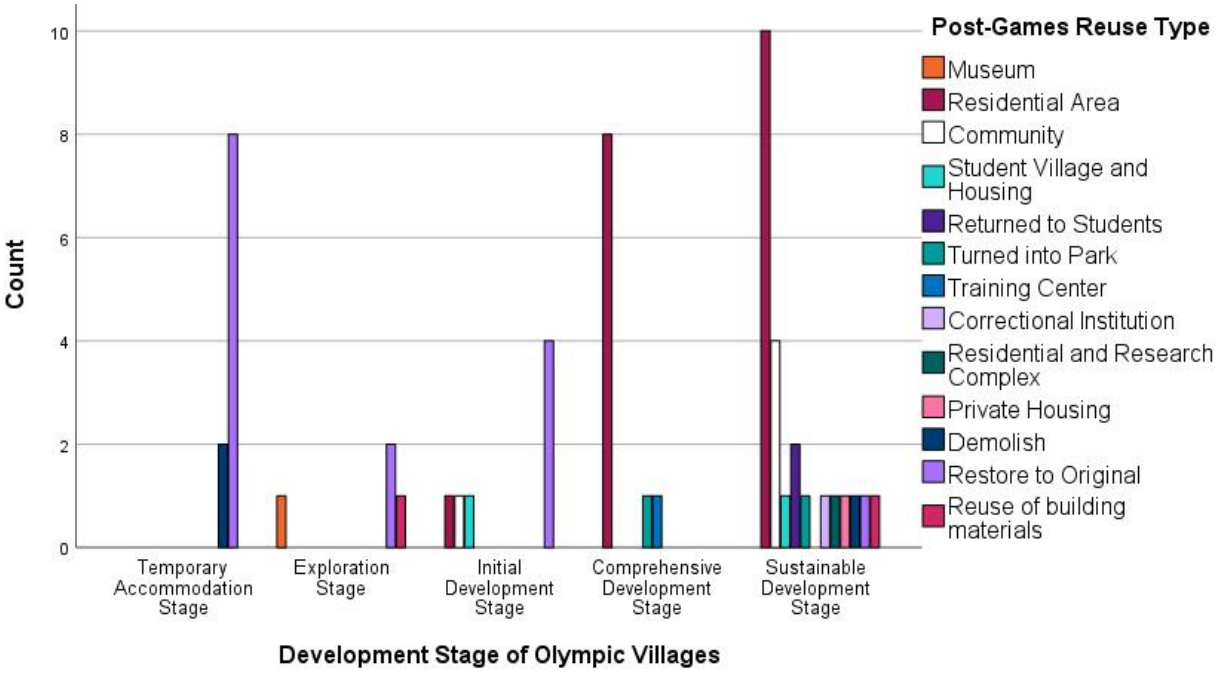


Figure 4-9: Proportional Distribution of Post-Games Reuse Types Across Developmental Stages

Source: Author's own drawing

Table 4-3 Chi-square Test and Association Strength Measures

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	76.370[a]	48	.006
Likelihood Ratio	74.009	48	.009
Linear-by-Linear Association	21.220	1	<.001
N of Valid Cases	55		

a. 63 cells (96.9%) have expected count less than 5. The minimum expected count is .07.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	1.178	.006
	Cramer's V	.589	.006
N of Valid Cases		55	

Source: Author's own drawing

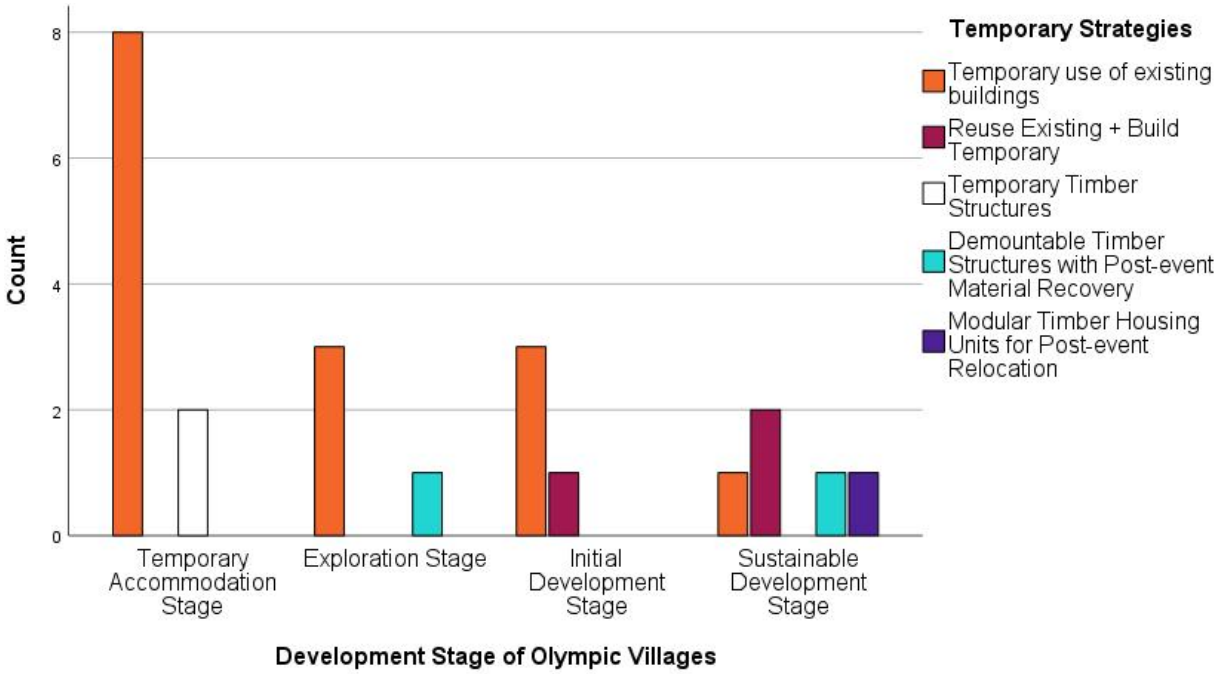


Figure 4-10: Proportional Distribution of Temporary Strategy Types Across Developmental Stages

Source: Author's own drawing

Table 4-4 Chi-square Test and Association Strength Measures

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	16.445[a]	12	.172
Likelihood Ratio	18.527	12	.101
Linear-by-Linear Association	3.679	1	.055
N of Valid Cases	23		

a. 19 cells (95.0%) have expected count less than 5. The minimum expected count is .17.

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.846	.172
	Cramer's V	.488	.172
N of Valid Cases		23	

Source: Author's own drawing

Figure 4-10 and Table 4-4 illustrate the distribution characteristics of temporary strategy types in Olympic Villages across different developmental stages and their statistical associations. Regarding the Chi-square test results in the table, although $p = 0.172 > 0.01$, 95% of cell expected frequencies are less than 5, which severely violates the fundamental

assumptions of the Chi-square test. Consequently, the results are deemed unreliable. Given this limitation, this study relies solely on frequency distribution and visual analysis for descriptive interpretation.

During the Temporary Accommodation Stage, strategies are highly concentrated on "Temporary Use of Existing Buildings" (8 instances), supplemented by "Temporary Timber Structures" (2 instances). This stage prioritizes rapid delivery as the core objective, with virtually no consideration given to post-event utilization. Upon entering the Exploration Stage, "Temporary Use of Existing Buildings" remains the predominant approach (3 instances), but for the first time, "Demountable Timber Structures with Post-event Material Recovery" (1 instance) emerges, marking a pivotal shift in planning philosophy from purely competition-period emergency response toward post-event reuse considerations.

By the Initial Development Stage, strategies undergo a critical transition—"Reuse Existing + Build Temporary" (1 instance) appears for the first time. This indicates that Olympic Village design begins to consciously integrate temporary structures into longer-term planning frameworks, laying the foundation for subsequent sustainable strategies. In the Sustainable Development Stage, temporary strategies demonstrate significant diversification; in addition to the continued application of "Temporary Use of Existing Buildings," both "Demountable Timber Structures with Post-event Material Recovery" (1 instance) and "Modular Timber Housing Units for Post-event Relocation" (1 instance) emerge simultaneously, reflecting that temporary strategies have been systematically incorporated into whole-life-cycle considerations.

Overall, emergency-type temporary strategies ("Temporary Use of Existing Buildings"), while still dominant, exhibit a marked decline in frequency across developmental stages (from 80.0% → 20.0%). Retrofit-type temporary strategies ("Reuse Existing + Build Temporary") account for 40.0% in the Sustainable Development Stage, significantly higher than in other stages. Circular-reuse-type temporary strategies ("Demountable Timber + Recovery" and "Modular Relocation") are predominantly concentrated in the latter two stages, validating their positioning as "mature-stage characteristics."

Thus, Olympic Village temporary strategies do not follow a linear progression but rather undergo a three-phase evolution: "emergency response," "retrofit integration," and "circular reuse." Particularly in the Sustainable Development Stage, temporariness has transcended its role as a cost-control mechanism and evolved into a pre-emptive design tool for urban renewal—temporary facilities themselves are pre-conceived as carriers of post-event

permanent functions or relocatable assets.

4. 2 Typolog y Analysis of Olympic Villages Across Editions

To systematically classify and summarize the site selection and post-Games reuse characteristics of Olympic Villages, this study conducted cluster analysis based on the results presented in Appendix 1. The objective is to reveal typical temporary reuse patterns across Olympic Villages throughout history, thereby providing reference for subsequent planning and design.

The study employed Hierarchical Clustering method in SPSS to perform stage-based modeling of Olympic Village case samples. Initially, case characteristics were clustered along the dimensions of "Site Selection Type" and "Post-Games Reuse Type" to achieve preliminary grouping. Subsequently, based on these grouping results, secondary modeling analysis was conducted along the "Temporality Strategy" dimension to simultaneously decode the "Post-Games Reuse Patterns" of Olympic Villages and their corresponding "Temporary Reuse Patterns." During the clustering process, the optimal number of clusters was comprehensively determined by integrating the structural features of the dendrogram with specific case information, ensuring that the classification results possess both statistical validity and practical interpretability.

Since the original variables are all nominal-scale categorical variables, SPSS cannot directly compute distances between them. To address this, this study converted both variables into dummy variables. Specifically, for each nominal variable, a set of binary indicator variables (0/1) was created to reflect category membership. All dummy variables were then merged to form a high-dimensional binary data matrix, serving as the input for cluster analysis.

Regarding distance measurement, the Jaccard Distance was selected due to its suitability for binary data, effectively measuring the similarity between two cases across various categories. For the clustering method, Average Linkage Between Groups was adopted. This strategy defines the proximity between groups by calculating the average of all pairwise distances between group members, facilitating the identification of stable cluster structures within highly heterogeneous datasets.

4.2.1 Analysis of Reuse Types

When analyzing the "Reuse Patterns" of Olympic Villages, to ensure data integrity and the reliability of analytical results, this study excluded samples with missing values in the

aforementioned variables. Ultimately, 55 valid cases were retained for subsequent analysis.

The analysis generated a dendrogram of case clustering (Figure 4-9). Given that this study aims to identify typical patterns and extract design insights rather than construct statistical prediction models, and considering the relatively limited sample size (n = 55) alongside the fact that all variables employed are nominal-scale categorical data—making traditional distance metrics based on continuous variables inadequate for fully capturing their complex semantic associations and combinatorial logic—quantitative indicators such as silhouette analysis or cluster stability tests were not adopted to determine the optimal number of clusters.

Instead, this study systematically interpreted the structural features of the dendrogram (e.g., branch merging heights) and conducted manual interpretation and semantic validation of clustering results by integrating the specific content of each Olympic Village case across the two dimensions of "Site Selection Type" and "Post-Games Reuse Approach." This process enabled the identification of several subgroups exhibiting internal consistency in site selection strategies and transformation pathways.

Ultimately, based on dual analysis of clustering structure and case attributes, all 55 cases were categorized into 7 typologically meaningful prototypes (see Table 4-5). This classification not only reflects the diverse pathways through which Olympic Villages transition from "temporary event accommodation zones" to "long-term urban functional carriers," but also establishes a typological foundation for proposing differentiated renewal strategies in subsequent research.

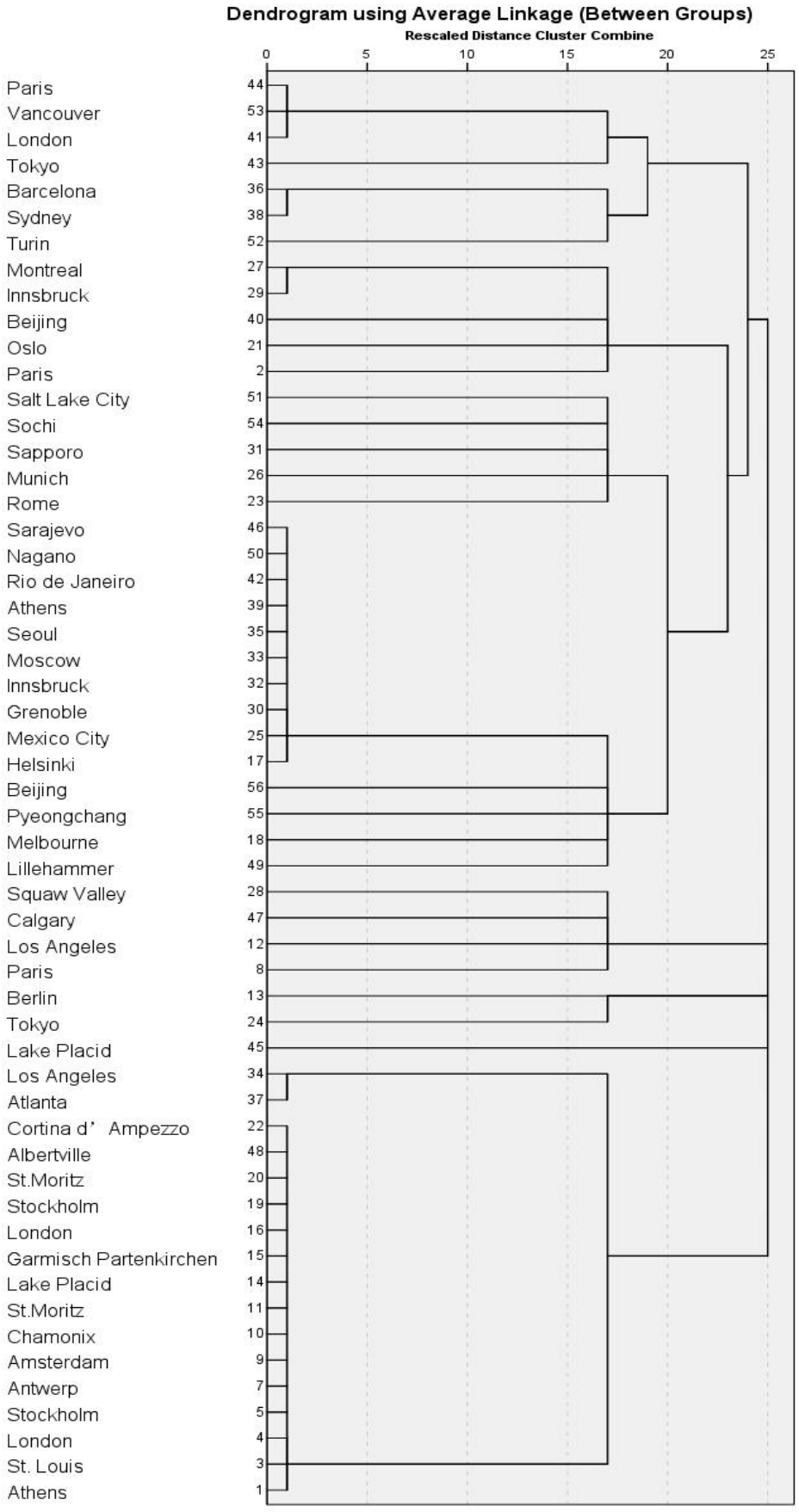


Figure 4-11 Clustering Analysis of Olympic Villages Across Editions

Source: Author's own drawing

Table 4-5 Overview of Olympic Village Reuse Types

Category	Reuse Mode	Site Selection	Year	Host City
1	Restore to Original (including reconstruction, demolition, etc.)	City Center（Urban area）	1900	Paris
		Suburban area	1994	Lillehammer
		Mountain Area	1932	Los Angeles
			1924	Paris
		Campus (Borrowed)	1984	Los Angeles
			1996	Atlanta
			1920	Antwerp
			1956	Stockholm
			1928	Amsterdam
			1912	Stockholm
		Military Base (Retrofit) + Campus (Borrowed)	1948	London
		Hotels/Residential (Borrowed)	1928	St.Moritz
			1936	Garmisch Partenkirchen
			1924	Chamonix
			1932	Lake Placid
			1956	Cortina d’Ampezzo
			1992	Albertville
			1948	St.Moritz
			1908	London
			1904	St. Louis
			1896	Athens
2	Residential Area / Community (including schools, health centers, etc.)	City Center（Urban area）	1976	Montreal
			1964	Innsbruck
			1952	Oslo
		Suburban area	1984	Sarajevo
			1998	Nagano
			2016	Rio de Janeiro
			2004	Athens
			1988	Seoul
			1980	Moscow
			1976	Innsbruck
			1968	Grenoble
			1968	Mexico City
			1952	Helsinki
			2022	Beijing
			1956	Melbourne

Category	Reuse Mode	Site Selection	Year	Host City
		Idle and Aging Areas (including former industrial zones, former airport sites, former school sites, etc.)	2024	Paris
			2010	Vancouver
			2012	London
			2020	Tokyo
			1992	Barcelona
			2000	Sydney
			2006	Turin
			2002	Salt Lake City
			1972	Sapporo
			1972	Munich
			1960	Rome
3	Apartment (Hotel/Private)		2014	Sochi
		Suburban area	2018	Pyeongchang
4	Park	City Center（Urban area）	2008	Beijing
		Military Base	1964	Tokyo
5	Museum		1936	Berlin
6	Public Sports Facilities	Mountain Area	1960	Squaw Valley
			1988	Calgary
7	Federal Correctional Institution	Former Sanatorium Site	1980	Lake Placid

Source: Author’s own drawing

4.2.2 Analysis of Temporary Reuse Types

Based on the results presented in Table 4-5, the "Restore to Original" reuse mode within Category 1 inherently aligns with the characteristics of temporary reuse. Building upon this finding, the present study introduces an additional dimension of "Temporary Strategy" alongside the existing "Site Selection" and "Post-Games Utilization" dimensions. A secondary hierarchical clustering analysis was conducted to refine the classification of "Post-Games Reuse Patterns," with particular emphasis on identifying and categorizing the embedded "Temporary Reuse Patterns."

Applying the same hierarchical clustering methodology yielded 21 cluster results, as illustrated in Figure 4-10. Through dual analysis of the clustering structure and specific case information, all 21 Olympic Village cases were synthesized into four typologically significant prototypes of temporary reuse (see Table 4-6).

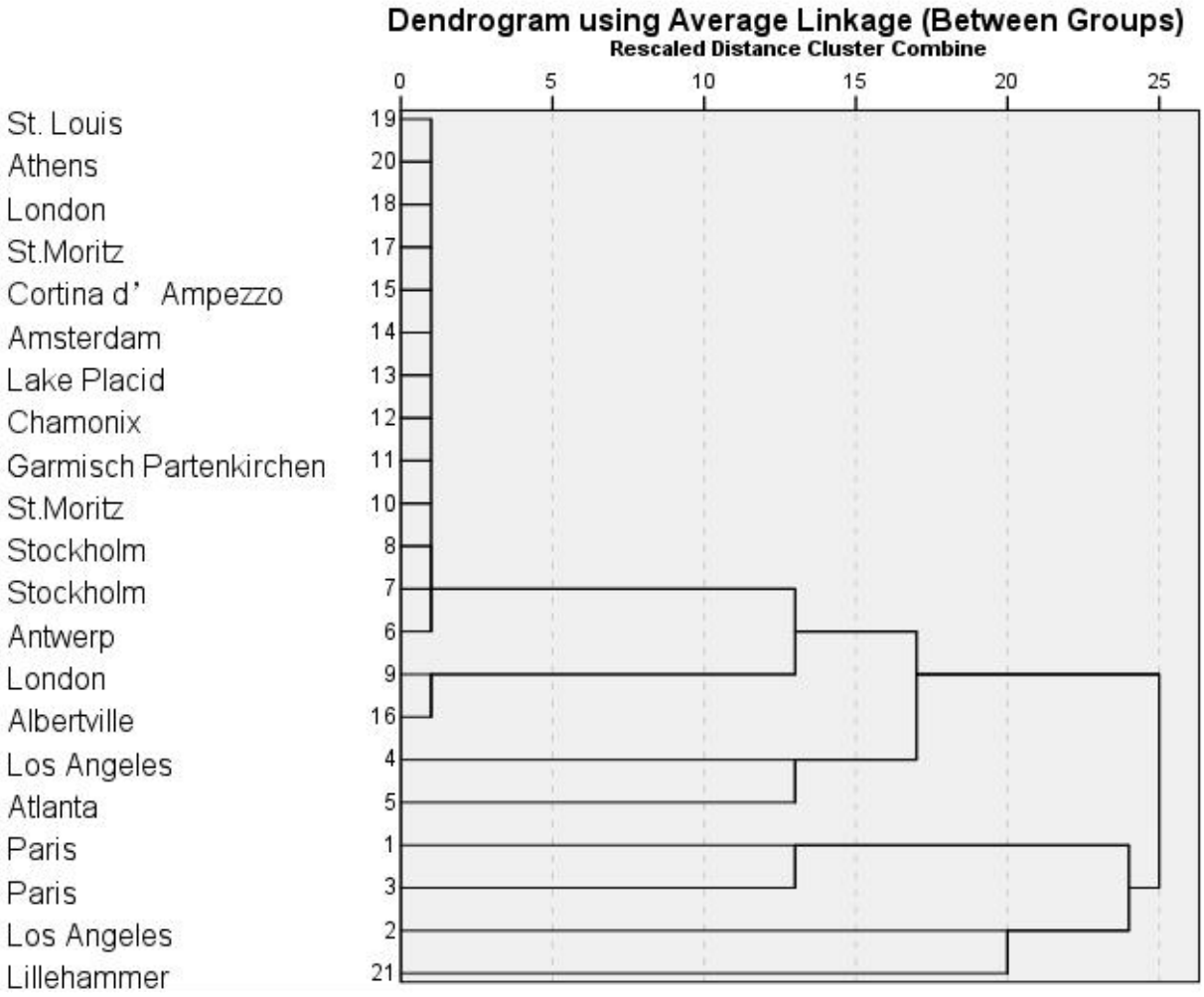


Figure 4-12 Refined Clustering Analysis

Source: Author's own drawing

Table 4-6 Overview of Temporary Reuse Types in Olympic Villages

Category	Temporary Strategy	Reuse Mode	Site Selection	Year	Host City
1	Temporary use of existing buildings	Restore to Original	Campus (Borrowed)	1912	Stockholm
				1920	Antwerp
				1928	Amsterdam
				1956	Stockholm
			Hotels/Residential (Borrowed)	1896	Athens
				1904	St. Louis
				1908	London
				1924	Chamonix
				1928	St.Moritz
				1932	Lake Placid
				1936	Garmisch

Category	Temporary Strategy	Reuse Mode	Site Selection	Year	Host City
					Partenkirchen
				1948	St.Moritz
				1956	Cortina d'Ampezzo
2	Reuse Existing + Build Temporary			1992	Albertville
			Military Base (Retrofit) + Campus (Borrowed)	1948	London
		Restore to Original + New Facilities Converted to Public Assets	Campus (Borrowed)	1984	Los Angeles
				1996	Atlanta
3	Temporary Timber Structures	Demolition	City Center（Urban area）	1900	Paris
			Mountain Area	1924	Paris
4	Modular + Demountable Timber Structures	Post-Games Demolition + Material Recovery for Off-Site Reconstruction		1932	Los Angeles
			Suburban area	1994	Lillehammer

Source: Author's own drawing

(1) Category 1: Temporary use of existing buildings

This mode (13 cases) represents the most extensively applied temporary strategy in Olympic Village history. Its essence lies in the functional borrowing of existing built environments without physical modification. Spaces are typically returned and restored to their original functions immediately after the Games.

(2) Category 2: Hybrid Approach of Borrowing and Temporary New Construction

As event scale expanded and service standards elevated, sole borrowing proved insufficient to meet requirements, giving rise to a composite "Reuse Existing + Build Temporary" model (4 cases). Its innovation resides in the deliberate design of newly added temporary facilities as post-Games public assets. This marks the evolution of temporary strategies into a bridge connecting short-term event demands with long-term urban development.

(3) Category 3: Disposable Temporary Wooden Huts

Exemplified by the 1900 and 1924 Paris Olympic Games, the "Temporary Timber Structures" mode (2 cases) employed simple timber structures for rapid construction, followed by complete demolition post-Games without material recycling plans. While this strategy

satisfied basic accommodation needs during the events, it generated substantial construction waste and offered no subsequent utilization value. Consequently, it has been abandoned under contemporary sustainability paradigms, existing solely as a technical choice under specific historical conditions.

(4) Category 4: Modular and Circular Wooden Huts

The most forward-looking approach is the "Modular + Demountable Timber Structure" mode (2 cases): houses are prefabricated using standardized modules, then entirely dismantled and reconstructed at alternative locations post-Games. This strategy achieves closed-loop resource utilization, significantly reducing environmental footprint, and provides a critical technical paradigm for future Olympic Games.

4.3 Case Study Analysis of Temporary Reuse Strategies in Olympic Villages

This section analyzes representative cases according to the classification of temporary strategies presented in Table 4-6, aiming to establish a comprehensive understanding of temporary reuse approaches.

4.3.1 Temporary Appropriation Type (Category 1)

This temporary strategy is mainly manifested in two implementation models: The first is borrowing public facilities such as campuses. For example, during the equestrian events of the 1956 Stockholm Olympics, athletes were accommodated in local student dormitories. The second is appropriating social idle resources such as hotels. For instance, in the 1956 Winter Olympics in Cortina d'Ampezzo, Italy, the organizing committee centrally allocated rooms from multiple local hotels to serve as the Olympic Village. Specific information is as follows:

The Stockholm Olympic Village in the 1956 Australian Olympics only undertook equestrian events, so it only needed to meet the living needs of a small number of participants. At the same time, for economic considerations, only the military academy Karlberg Castle and the naval academy Näsby Castle were temporarily appropriated as Olympic Village spaces. These facilities were restored to their original functions immediately after the Games[38][39].

The 1956 Winter Olympics in Cortina d'Ampezzo, Italy (Cortina d'Ampezzo 1956) continued the early "dispersed accommodation" residential model. Athletes and officials were mainly distributed in hotels and guesthouses (hotel and guest house) surrounding the venues, with a total of 42 hotels and 10 guesthouses undertaking accommodation functions.

In terms of post-Games utilization, both competition venues and accommodation systems were continued and integrated into the local tourism industry.



Figure 4-13 Venue Distribution of Cortina d'Ampezzo

Source: Reference [40]

4.3.2 Borrowing and Temporary New Construction Hybrid Type (Category 2)

The emergence of this type of temporary strategy marks the gradual shift of large-scale event planning from solely meeting short-term functional needs to focusing on integration with long-term urban development goals. The 1948 London Olympic Village and the 1996 Atlanta Olympic Village are typical representatives of this transformation:

The 1948 London Olympics used a total of 29 competition venues, of which 19 are still in use today for high-level competitions and community sports activities. Except for one temporary venue, all others were renovated and utilized from existing facilities, reflecting Britain's pragmatic strategy in the post-war context of economic austerity and resource scarcity.

The 1996 Atlanta Olympic Village was located on the campus of Georgia Institute of Technology and its surrounding areas, adopting a construction strategy of "combining existing buildings with new facilities."

The building complex consisted of various forms including student apartments, dormitory buildings, and fraternity buildings, accommodating approximately 15,000 athletes and officials. The overall presentation was of an apartment block type, preserving the low-rise

and mid-rise scale of the original campus buildings while also constructing several new modern student apartment buildings, maintaining stylistic consistency. Within the Olympic Village, Georgia Tech Plaza served as the "town center," integrating dining, meeting, and leisure functions, demonstrating the reorganization and composite utilization of the campus's original open spaces[41][42].

In terms of planning, the Atlanta Olympic Village was adjacent to the central business district and major competition venues, fully utilizing the university's transportation, sports, and service resources, achieving an organic combination of urban space and the educational system. Similar to the 1984 Los Angeles Olympic Village, Atlanta's construction emphasized resource reuse and functional symbiosis. The completion of the Olympic Village not only improved the campus environment but also promoted infrastructure upgrades in surrounding areas, making the competition space a carrier for the win-win development of urban renewal and education[43].

After the Games, the Olympic Village as a whole returned to the management of Georgia Institute of Technology, being used as student dormitories and teaching spaces. The newly added accommodation facilities simultaneously benefited Georgia Institute of Technology and the neighboring Georgia State University, becoming shared educational resources for both institutions[44].



Figure 4-14 Atlanta Olympic Village

Source: Reference [1]

4.3.3 Single-Use Construction Type (Category 3)

This type of temporary strategy uses "temporary timber houses" as the implementation vehicle. Its characteristic is that after the conclusion of the competition, all structures are completely demolished without any material recycling arrangements, essentially representing a temporary technical response solution under specific historical contexts. The 1924 Paris Summer Olympics Olympic Village is a typical case:

The 1924 Paris Olympics was the first event in history to establish an Olympic Village, located in Colombes on the western outskirts of Paris, near the main stadium[1].

The Olympic Village was constructed using wooden houses, with simple and temporary architectural forms, equipped with basic living facilities such as canteens, running water, postal services, telephones, newspaper kiosks, and currency exchange counters. This Olympic Village was primarily used by male athletes, but some countries (such as the United States) still chose to build their own camps or rent external accommodations. After the conclusion of the Olympics, the wooden house structures were completely demolished, and the site was redeveloped and utilized. It is now covered by newly constructed urban facilities[45][46].

The spatial organization within the Paris Olympic Village embodied the early Olympic Village concept of "functional concentration and shared services," representing an important node in the transition from dispersed temporary appropriation to centralized accommodation, laying the prototype foundation for the subsequent institutional development of Olympic Villages.



Figure 4-15 Paris Olympic Village

Source: Reference [1]

4.3.4Modular and Demountable Type (Category 4)

The key to this type of temporary strategy (Modular and Demountable) lies in viewing

buildings as demountable and reconfigurable systems composed of standardized prefabricated modules: after the conclusion of the competition, the entire building is dismantled and reassembled at a different location, with materials being recycled. Taking the 1994 Lillehammer Winter Olympic Village as an example:

The main Olympic Village for the 1994 Lillehammer Winter Olympics was located in the Skaarsetlia area, approximately 3 kilometers northeast of the city center. It was an overall newly constructed independent residential building complex. The Olympic Village covered an area of approximately 5.5 hectares and provided approximately 2,650 beds. The buildings were primarily constructed with wood structures, combining traditional Norwegian architectural techniques with modular prefabricated components. The village was equipped with restaurants, churches, libraries, sports venues, and various cultural and living facilities, with an overall compact layout and comprehensive functions.

After the Games, some permanent buildings were retained and transformed into community residences and public service facilities, including churches, kindergartens, medical centers, and elderly activity centers. The remaining 141 residences were sold to private households, and another 50 temporary residences were transferred to Sweden for social housing projects. These wooden houses were designed as demountable structures. After the conclusion of the Olympics, all these temporary buildings were completely dismantled, and the timber and other materials were recycled or reused[47].

This model, while continuing the Olympic legacy, achieved the recycling of ecological building materials and the extension of community functions, reflecting the early practice of sustainable development concepts in the construction of Winter Olympic Villages[48][49].



Figure 4-16 Lillehammer Olympic Village

Source: Reference [50]

4.4 Chapter Summary

This chapter, through systematic sorting and typological analysis of Olympic Villages

across different editions, identifies four typical types of temporary reuse of Olympic Villages. First, the commonalities and differences of Olympic Villages are summarized through overall overview and characteristic analysis; subsequently, typological analysis of Olympic Villages is conducted. Based on the preliminary division of seven types of reuse, four representative types of temporary reuse are further summarized: (1) Temporary Appropriation of Existing Resources; (2) Hybrid of Borrowing and New Construction; (3) Single-Use Temporary Construction; (4) Modular and Demountable Wooden Houses. This classification system clearly demonstrates the evolution of temporary construction of Olympic Villages from "emergency use" to "strategic planning." Combined with typical cases of each type, the specific implementation methods of the four models are deeply analyzed.

Research shows that temporariness is not necessarily equivalent to a low-level or transitional state, but can exist as a proactive planning strategy with low cost and high adaptability, providing empirical support and typological reference for the subsequent construction of methodology and practical implementation.

Chapter5 Cross-Domain Expansion Research on Temporary Reuse Strategies for Olympic Villages

This chapter aims to verify the practical value of temporary urbanism in the spatial renewal of Olympic Villages through the sorting and study of relevant practical cases of temporary urbanism, and to extract referential prototypes of temporary design strategies from them, providing expandable design content support for the temporary transformation of Olympic Villages.

This paper will use the "temporary intervention types" from the "spatial renewal process" proposed in Chapter 3 as a classification framework, categorizing typical cases into five types: cultural activation type, activities and recreation type, social services type, economic incubation type, and ecological introduction type. This classification not only facilitates intuitive comparison of similarities and differences in temporary strategies across different cases, but also focuses the analysis on the core logic of "temporary strategies," thereby providing a clear research path for subsequent case studies and strategy extraction.

Furthermore, the dimensions for case prototype extraction mentioned in Section 3.4 "Regeneration Strategies" of Chapter 3 will serve as specific indicators in the case prototype extraction phase of this chapter. Specifically, the research in this chapter first conducts subjective preliminary classification based on the theoretical framework, then combines SPSS hierarchical cluster analysis for data-driven secondary categorization of similar cases, and finally, based on typical samples, attempts to extract several representative temporary urbanism strategy prototypes.

Table 5-1 Overview of Case Selection

Number of Cases	Cultural Activation Type	Activities and Recreation Type				Social Services Type	Economic Incubation Type	Ecological Environment Type
		Community Activities Type	Public Leisure Type	Sports Type	Learning & Practice Type			
Subtype	26	35	21	5	7	8	10	11
Total	26	68				8	10	11

Source: Author's own drawing

During the case collection process, this paper compiled a total of 123 cases (Table 5-1), including 8 cases that were studied repeatedly from different perspectives, resulting in a total

of 115 unique cases. Among these, there were 26 cases of cultural activation type, 68 cases of activities and recreation type (including subtypes such as community activities), 8 cases of social services type (with 1 repeated case), 10 cases of economic incubation type (with 4 repeated cases), and 11 cases of ecological introduction type (with 3 repeated cases). It is worth noting that due to the relatively limited number of case samples, and the fact that the case selection and coding process was inevitably influenced by researchers' subjective judgments and variable setting methods, this study only employs hierarchical cluster analysis as an auxiliary classification tool rather than for inferring statistical patterns. Its core purpose is to avoid biases and ambiguities brought about by purely subjective judgments, thereby enhancing the logic, generality, and referential value of prototype classification. The prototypes ultimately extracted are therefore more intuitive and typical, helping to provide clear references for the generation of subsequent design strategies. Future research could further expand in terms of sample size and geographical diversity, and incorporate qualitative methods such as in-depth interviews and user behavior surveys to enhance the explanatory power of prototype construction.

5.1 Case Selection Criteria

Based on the practical characteristics of temporary reuse of Olympic Villages, this study systematically categorizes 115 cases into five functional types: cultural activation, leisure and activities, social services, economic incubation, and ecological environment. Regarding data sources, official archives constitute the primary source (approximately 90%), supplemented by media reports and academic literature (approximately 10%), ensuring the authority and reliability of case data.

For the cultural activation type, core criteria require that cases must include at least one cultural function, such as exhibitions, performances, or intangible cultural heritage preservation, with a reuse period not exceeding three years to reflect the short-term cultural value of temporary facilities.

The leisure and activities type focuses on public recreation, community events, and sports as dominant functions, requiring verification of activity frequency at no less than once annually to ensure sustained utilization value of facilities.

The social services type mandates clearly defined service targets, primarily serving community residents or specific vulnerable groups, with priority given to typical cases demonstrating transition from temporary facilities to permanent social service infrastructure.

The economic incubation type requires inclusion of economic functions such as

entrepreneurship incubation and small-to-medium enterprise clustering.

The ecological environment type necessitates involvement in ecological restoration, low-carbon technology application, or environmental education functions, with emphasis on cases effectively integrating temporary facilities with natural ecosystems.

Through systematic screening across these five functional types, the 115 cases comprehensively cover the diverse practical domains of temporary reuse of Olympic Villages.

5.2 Cultural Activation Types

The Cultural Activation Type refers to a practical approach that employs temporary interventions to stimulate civic participation and construct place memory through the introduction and expression of cultural content. Among the 132 cases compiled in this study, 26 cases belong to this category, demonstrating significant representativeness and typological distinctiveness.

This section will further deconstruct the typical characteristics of the classified cases in terms of spatial organization, installation forms, atmospheric expression, and operational mechanisms, and select representative individual cases for strategic analysis, aiming to clarify the logic and transferable strategies within the Cultural Activation Type cases.

5.2.1 Feature Analysis

Systematic analysis of the 26 typical cases under the Cultural Activation Type reveals that such temporary interventions primarily operate through cultural content production and event planning as the dominant mechanism. Through short-term or medium-to-long-term temporary installations, they stimulate cultural identity in urban spaces. Site selection predominantly concentrates on neglected, marginalized, or abandoned urban spaces, such as abandoned factories, under-bridge spaces, and port edge areas. Through lightweight intervention and rapid deployment architectural strategies, these practices effectively catalyze the functional restart of sites and promote the regeneration of publicness in deteriorated or idle areas (see Appendix 2-Table 2).

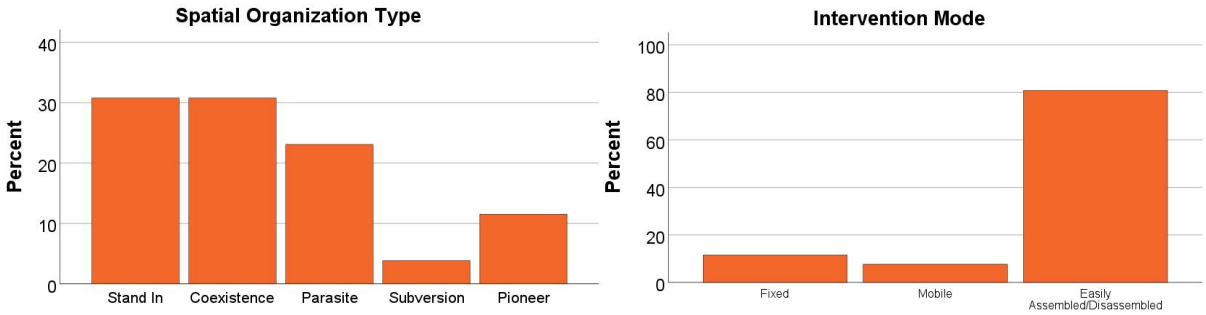


Figure 5-1 Spatial Organization Types and Intervention Types (Cultural Category)

Source: Author's own drawing

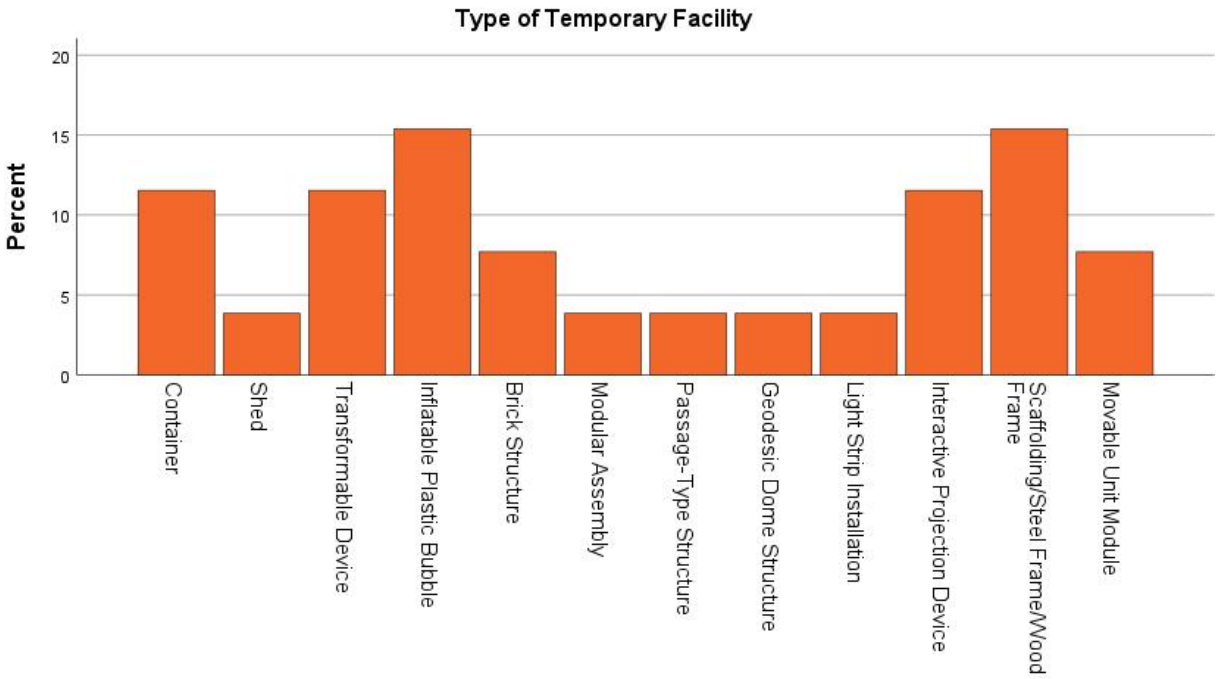


Figure 5-2 Temporary Facility Types (Cultural Category)

Source: Author's own drawing

Statistical results of the cases (Appendix 2-Table 1) show that in terms of spatial organization methods (Figure 5-1), both the "Stand-In" and "Coexistence" types account for more than 30% each, indicating that most temporary spaces in the limited cases tend to embed into the existing urban environment in a non-intrusive form. Regarding intervention methods (Figure 5-1), "Easily Assembled/Disassembled" structures hold an absolute advantage (approximately 80%), significantly higher than "fixed" and "mobile" types, reflecting the emphasis on flexibility in temporary architecture.

In terms of temporary facility types (Figure 5-2), inflatable plastic bubbles and scaffolding/steel or wood frame structures are the most common, followed by containers and transformable devices, collectively presenting structural characteristics of lightweight,

assemblable, and mobile features.

The primary functions (Figure 5-3) are dominated by art performances, followed by art exhibitions and historical exhibitions, indicating that temporary architecture in this case group is predominantly utilized for artistic and cultural public events.

Atmosphere creation primarily features organic forms, followed by transparent shells interacting with external landscapes and integration of historical/cultural elements, reflecting the case group's emphasis on combining visual openness with cultural narratives in temporary architecture.

Participation modes are mainly one-way use, with interactive use and participatory use proportions being similar. The duration cycles are predominantly short-term pop-ups, accounting for an absolute majority, while seasonal and long-term temporary presence proportions are extremely low, demonstrating that such architecture tends toward immediate, ephemeral use.

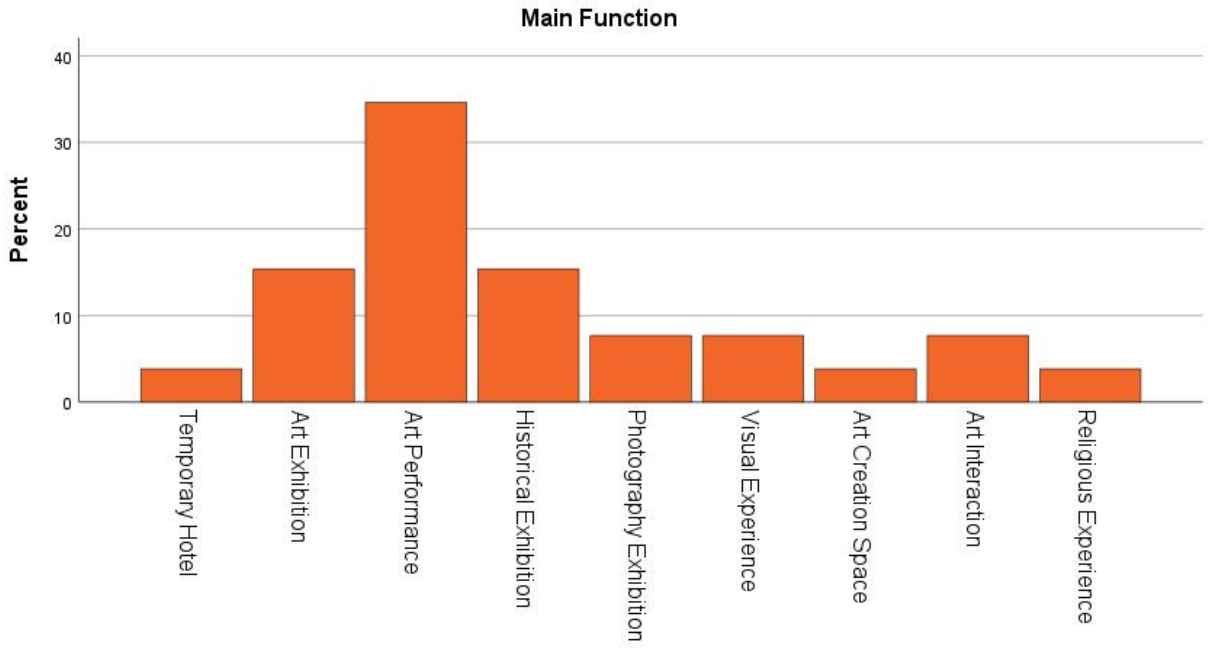


Figure 5-3 Primary Functions (Cultural Category)

Source: Author’s own drawing

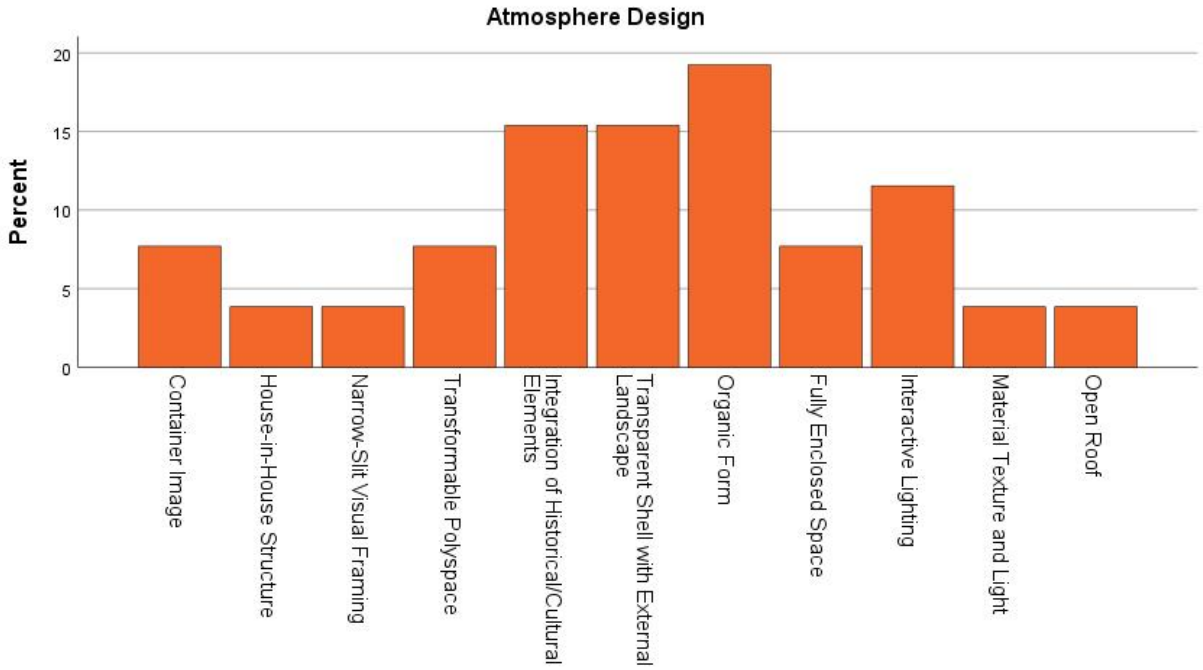


Figure 5-4 Atmosphere Creation (Cultural Category)

Source: Author's own drawing

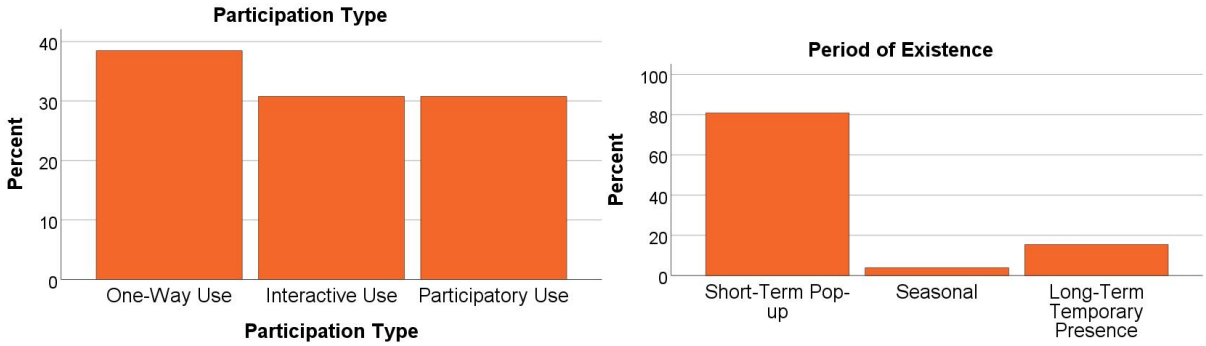


Figure 5-5 Participation Types and Cycles (Cultural Category)

Source: Author's own drawing

5.2.2 Typological Analysis

To explore aggregation patterns among multidimensional variables and identify representative prototypes of temporary spatial interventions, this study first employed Hierarchical Clustering analysis in SPSS to model case samples across core dimensions including "temporary facility types," "primary functions," and "atmosphere creation." The objective was to preliminarily group case samples and, in combination with the structural characteristics of the dendrogram and specific case content, comprehensively determine the optimal number of clusters.

Since the original variables were all nominal-scale categorical variables, SPSS could not directly calculate distances between them. Therefore, this study converted all categorical variables into dummy variables. Specifically, for each nominal variable, a set of binary indicator variables (0/1) was created to reflect category membership. All dummy variables were merged to form a high-dimensional binary data matrix as input for cluster analysis.

For distance measurement, Jaccard Distance was selected, as it is suitable for binary data and can effectively measure similarity between two cases across various categories. The clustering method employed Average Linkage, which defines proximity between groups by calculating the average distance between all pairwise members across groups, facilitating the identification of stable cluster structures in datasets with strong heterogeneity.

The analysis generated a dendrogram of case clustering (Figure 5-6). Considering the small sample size (n=26) and that all variables were nominal-scale categorical data, traditional distance measurement methods could not fully capture their complex semantic relationships. Therefore, quantitative metrics such as silhouette analysis or cluster stability tests were not adopted. Instead, this study identified multiple subgroups with consistent design logic through visual interpretation of the dendrogram's aggregation structure (e.g., branch lengths, bifurcation positions) and comparison with specific case content (e.g., facility types, functions). Ultimately, based on dual analysis of clustering structure and case attributes, all cases were integrated into prototypes with internal consistency. This process not only facilitates in-depth understanding of similarities and differences among different cases but also provides robust data support for further refining and classifying typical patterns of temporary spatial intervention strategies.

From the clustering structure (Figure 5-6), it can be observed that samples exhibit multiple distinct branches at relatively low aggregation distances (<10), yet most aggregation points converge in the mid-to-high region of the distance axis (15–20), indicating relatively low structural similarity among cases across multiple variable combinations. Based on the clustering structure characteristics in the dendrogram, it is comprehensively determined that dividing the 26 cases into six clusters at a distance of 23 is relatively reasonable.

Upon in-depth comparison and content analysis of these six clusters, it was found that Cases No. 6 and No. 15 both exhibit significant "sensory interaction" characteristics in key dimensions such as facility type and atmosphere creation, showing high convergence with Cluster 1 (Cases No. 18, 19...16), and thus can be incorporated into this group, collectively categorized under the "Sensory-Interactive Prototype." Similarly, Case No. 3 demonstrates clear "container" characteristics in dimensions such as facility type and atmosphere creation,

aligning closely with Cluster 5 (Cases No. 1 and 2), and therefore can be integrated into this group, jointly forming the "Cultural Container-Based Prototype" category.

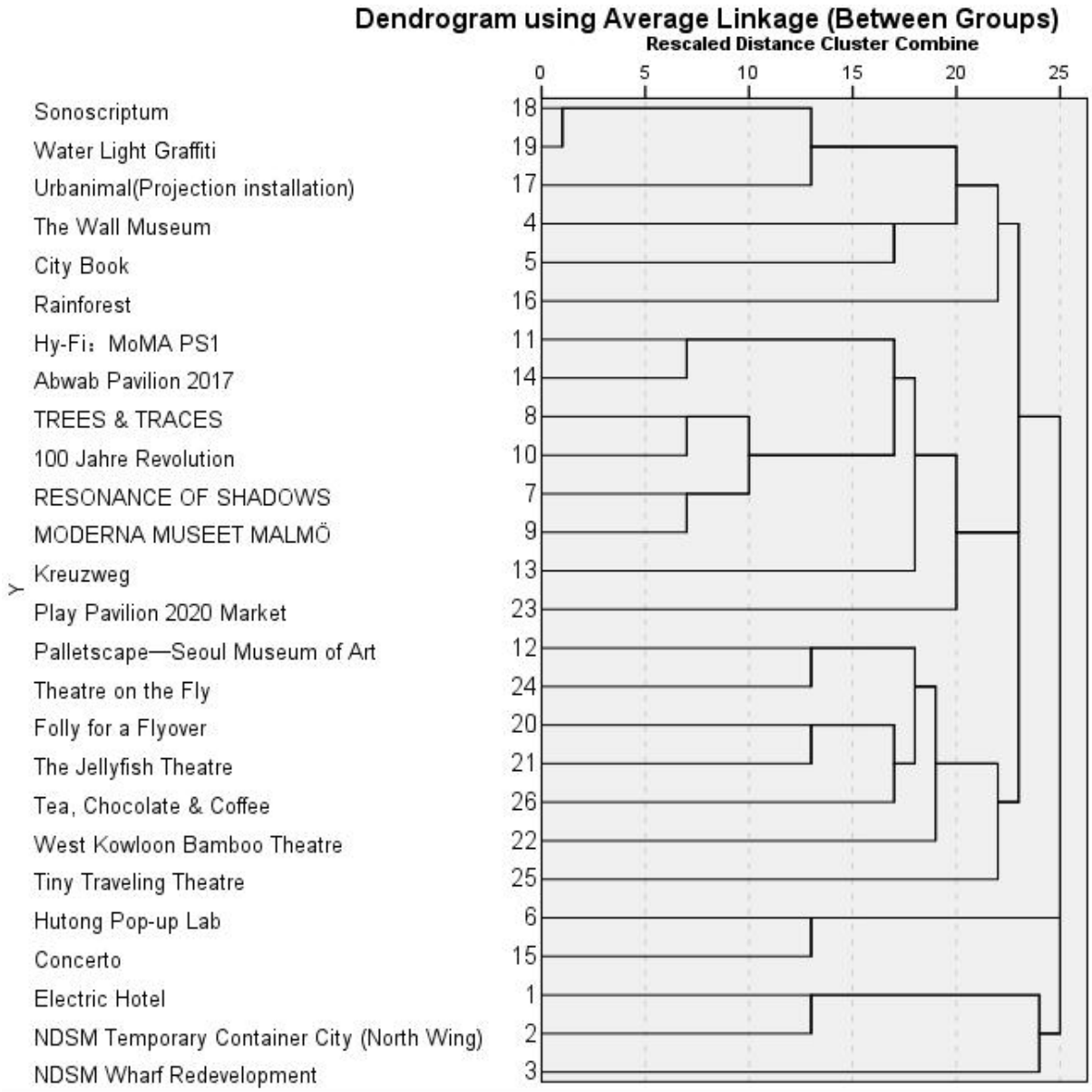


Figure 5-6 Cluster Analysis (Cultural Category)

Source: Author’s own drawing

Table 5-2 Cultural Activation Type – Prototypes

Prototype	SOT [1]	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC [2]
		Installation Types	IF [3]	Function	Atmosphere Creation	PT [4]	
Type 1. Sensory-Interactive Type	PA	Light installations / deformable structures	AD	Artistic interaction, exhibition, and visual experience	Artistic interaction, exhibition, and visual experience	PM /IE /OW	ST
Type 2. Immersive Light-Based Installation Type	SI	Irregular Shapes + Lightweight Structures (Organic forms, circular forms, etc.)	AD	Performance and exhibition	Generate light-shape variations through materials, forms, and structures	OW	ST
Type 3. Performative Gathering Type	PI/CO	Temporary Frameworks (Scaffolding, etc.) / Movable Units	AD	Performance	Reproduce historical/cultural elements or shape irregular spaces through materials and forms	PM /IE	ST
Type 4. Cultural Container-Based Type	SV / CO	Repurposed Discarded Containers as Building Units	FX	Artistic creation space, exhibition, and accommodation	Industrial aesthetics from containers; reproduction of historical/cultural elements	PM /IE /OW	ST /LT

Source: Author's own drawing

[1]SOT=Spatial Organization Type; SI=Stand in; SV=Subversion; CO=Coexistence; PA=Parasite; PI = Pioneer

[2] UC=Usage Cycle; ST=Short-term pop-ups; PO=Periodic openings; LT=Long-term temporary use

[3]IF=Intervention Forms; FX=Fixed; MB=Mobile; AD=EasilyAssembled/Disassembled

[4]PT=Participation; OW=One-way use; IE=Interactive experience; PM=Participatory modification

Following this adjustment, all cases were ultimately consolidated into four categories with internal consistency (see Table 5-2), enhancing both the logical rigor of classification and the representativeness and explanatory power of subsequent prototype extraction. Specifically, these four categories are as follows:

① The first category is the "Sensory-Interactive Prototype."

This type primarily relies on lighting installations or deformable devices, emphasizing real-time interaction with participants through multiple sensory channels such as visual and tactile experiences. Its core logic lies in using installations as a medium to create engaging visual and behavioral interactive experiences. Functionally, it predominantly features "art exhibitions" and "art interaction," suitable for application in urban vacant corners, public squares, and other sites, effectively enhancing the cultural vitality of places through low-intervention, high-perception approaches. This category includes Cases No. 18, 19, 17, 4, 5, 16, 6, and 15.

② The second category is the "Immersive Light-Based Installation Prototype."

Cases in this category typically adopt non-conventional structural forms—breaking away from traditional geometric boundaries and instead employing organic shapes, circles, crosses, etc., to shape unique spatial experiences. Structurally, they generally exhibit a sense of lightness, commonly achieved through lightweight structures such as membrane structures or fine frameworks, emphasizing visual transparency. Their core characteristic lies in creating spatial atmospheres with strong sensory impact through materiality, form, or structure to generate light and shadow variations. Functionally, they primarily serve as vehicles for "performances" or "exhibitions," aiming to stimulate perceptual engagement and emotional resonance among viewers. Benefiting from their highly flexible forms, this type can accommodate artistic performances while also providing short-term public gathering and interactive experiences, suitable for urban cultural event venues, public open spaces, and art festival scenarios. This category includes Cases No. 11, 14, 8, 10, 7, 9, 13, and 23.

③ The third category is the "Performative Gathering Prototype."

The core vehicle of this type comprises temporary framework structures (such as scaffolding, steel frames, wooden frames, etc.) or movable units, featuring easy assembly/disassembly, high flexibility, and low cost, facilitating rapid deployment in urban open spaces. They are commonly used for festive events, urban celebrations, and large open spaces requiring short-term activation. On one hand, such structures reinterpret historical memory and regional cultural elements through thoughtful design of materials or forms,

creating spaces with symbolic or narrative significance; on the other hand, they can also generate playful and exploratory spatial atmospheres by crafting unconventional spatial experiences. Functionally, this prototype primarily serves "art performances." However, its essence extends beyond serving a single event—it triggers public events through performative actions, transforming originally idle or underutilized spaces into temporary stages, promoting the transformation of urban space from a "static container" to a "dynamic stage." This category includes Cases No. 12, 24, 20, 21, 26, 22, and 25.

④ The fourth category is the "Regenerative Container Prototype."

This type revitalizes industrial heritage and activates urban space by repurposing discarded shipping containers into architectural units. Its core characteristic lies in integrating functional architecture with cultural expression—retaining the original industrial form while endowing it with new social functions and cultural significance. This prototype is particularly suitable for existing sites such as old factories, industrial spaces, and marginalized urban areas, promoting place regeneration through low-intervention, high-recognition approaches. This prototype typically adopts fixed structures, leveraging the standardized modular characteristics of containers for combination and assembly, forming independent volumes with clear boundaries and internal spaces. Its spatial functions are usually positioned as art creation spaces, art exhibitions, or temporary lodging, possessing strong operational stability and usability. Meanwhile, design often reconstructs industrial aesthetics and incorporates regional history or cultural elements through treatment of container surface materials, colors, and spatial layouts, thereby constructing a composite spatial experience that blends nostalgia with contemporaneity. This category includes Cases No. 1, 2, and 3.

5.3 Leisure and Activity Types

The leisure and activity type emphasizes spatial openness and shareability, focusing on adapting to diverse daily practices such as leisure, sports, and learning through flexible and variable site functions. Among the 132 cases reviewed in this study, 68 cases belong to this category, accounting for more than half of the total and ranking first among all types, fully demonstrating its extensive applicability and high universality in temporary spatial renewal.

This section selects 29 representative typical cases for further analysis of their common characteristics in spatial layout, activity organization, and facility configuration, aiming to reveal how this type promotes community cohesion, activates public life, and supports multi-functional composite utilization through spatial intervention. On this basis, replicable

and transferable construction strategies are extracted to provide practical references for the temporary renewal of urban public spaces.

5.3.1 Feature Analysis

Analysis of the samples indicates that cases in this category generally exhibit comprehensive characteristics of flexible intervention, lightweight construction, community orientation, and experience enhancement in terms of type and form, reflecting the responsive adaptation of temporary spatial strategies to the needs of daily public life. (See Appendix 2-Table 3)

Statistical results of the cases (Appendix 2-Table 3) show that spatial organization types (Figure 5-7) are predominantly Coexistence and Pioneer, indicating that temporary spaces in this case group more frequently intervene through juxtaposition or guidance of new functions. In terms of intervention forms, Easily Assembled/Disassembled accounts for nearly 70%, demonstrating a high degree of flexibility and reversibility.

Temporary facility types (Figure 5-8) are dominated by Modified Vehicle with Spatial Enclosure, followed by Framing Structure and Ground Mural / Container / Temporary Stage. Overall, these facilities generally exhibit structural characteristics of being lightweight, assembleable, and mobile.

Primary functions (Figure 5-9) are mainly Neighborhood Gathering and Entertainment Activity, occupying a significant proportion, reflecting that such temporary constructions primarily serve community interaction and public entertainment, while commercial, performance, and educational functions account for relatively lower proportions.

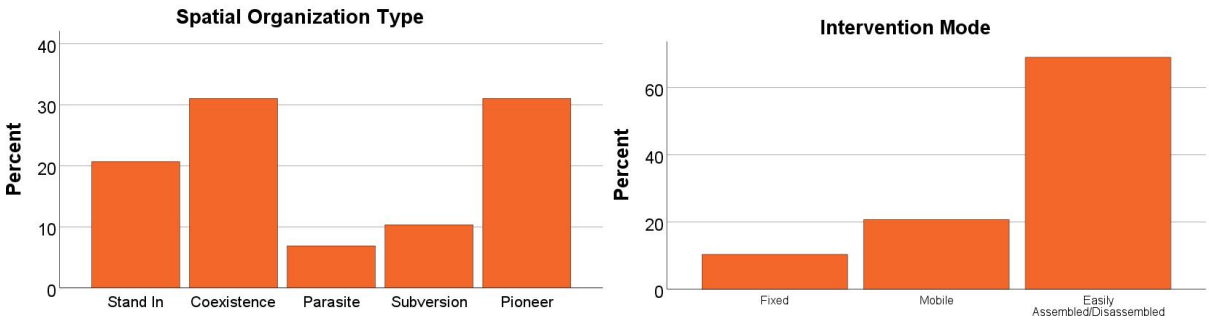


Figure 5-7 Spatial Organization Types and Intervention Types (Activity Category)

Source: Author's own drawing

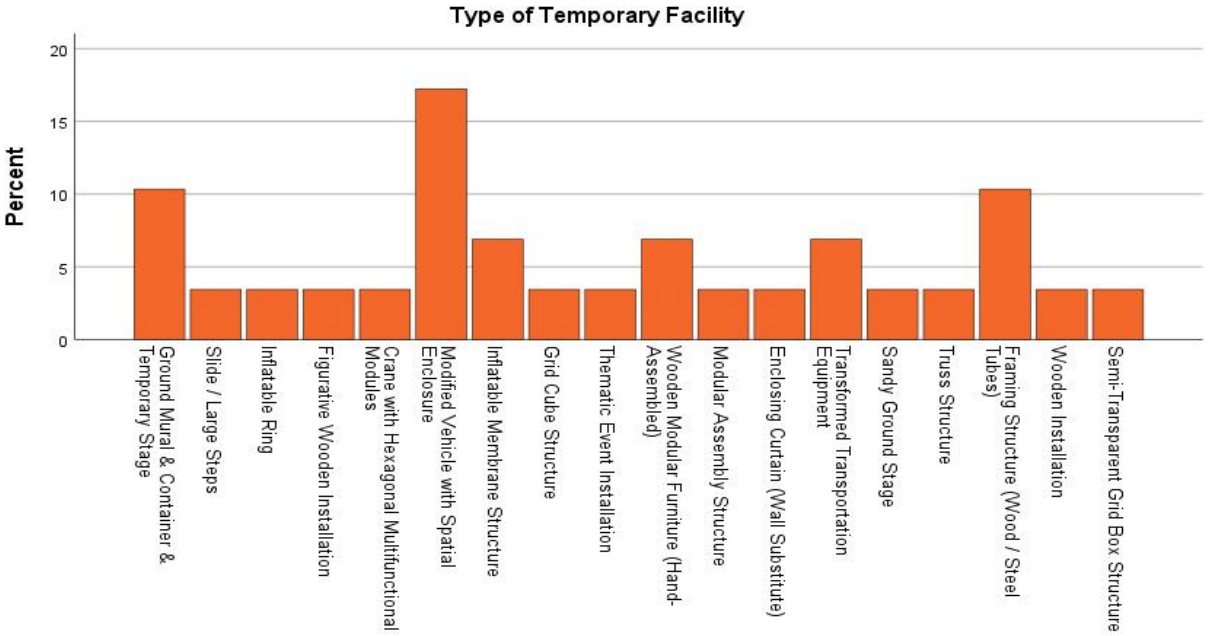


Figure 5-8 Temporary Facility Types (Activity Category)

Source: Author's own drawing

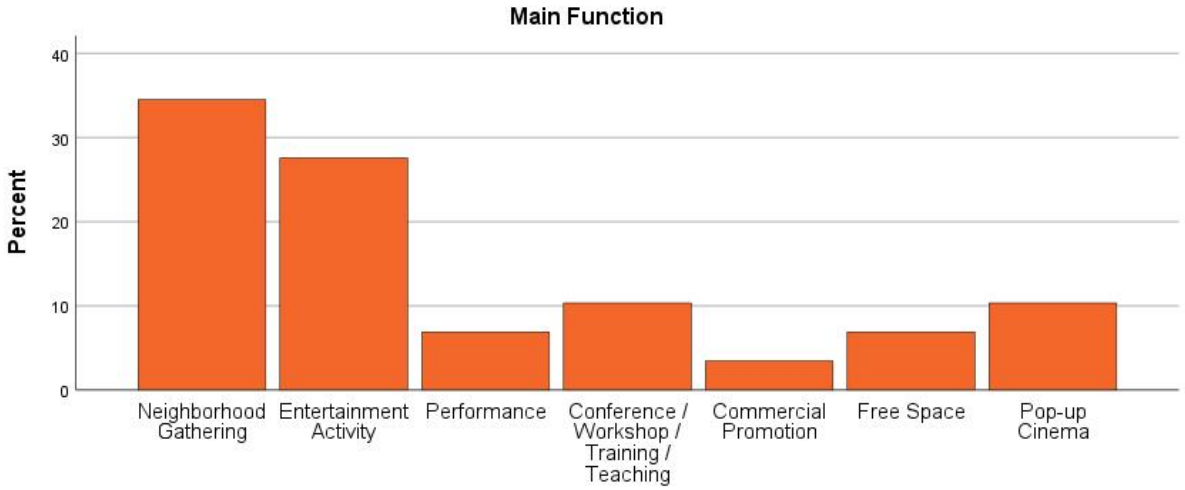


Figure 5-9 Primary Functions (Activity Category)

Source: Author's own drawing

In terms of atmosphere shaping (Figure 5-10), Activity Space Formed by Modified Vehicle accounts for the highest proportion, followed by Ground Mural and Gray Space under Framing Structure. The overall trend indicates that designs in this case group tend to shape temporary place atmosphere through mobile carriers and structural enclosures, emphasizing interactivity and site recognizability.

Regarding participation types (Figure 5-11), Interactive Use predominates, accounting

for over 60%, indicating that such projects place greater emphasis on dynamic interaction and experience between audiences and space; in contrast, the proportion of Participatory Use remains relatively low, suggesting that direct public involvement in spatial construction is still limited.

In terms of existence cycle, Short-Term Pop-up holds an absolute advantage, reflecting that such projects are characterized by temporality and flexibility as core features, typically serving as spatial interventions during short-term cultural events or art festivals.

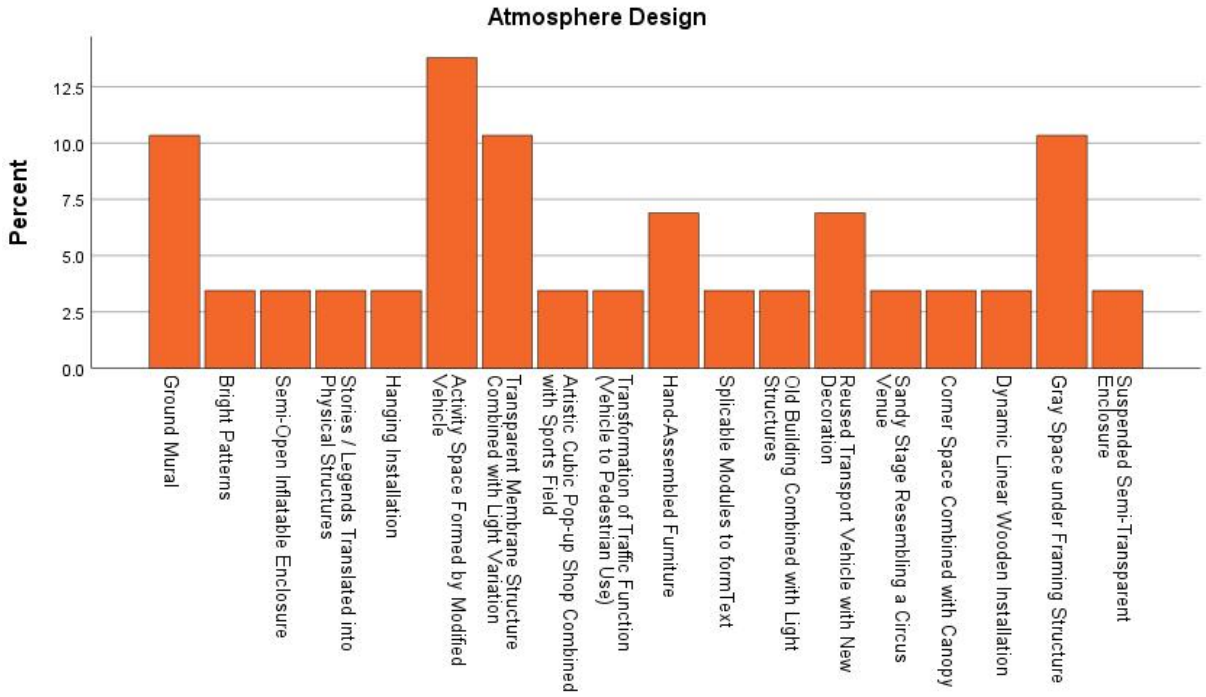


Figure 5-10 Atmosphere Creation (Activity Category)

Source: Author's own drawing

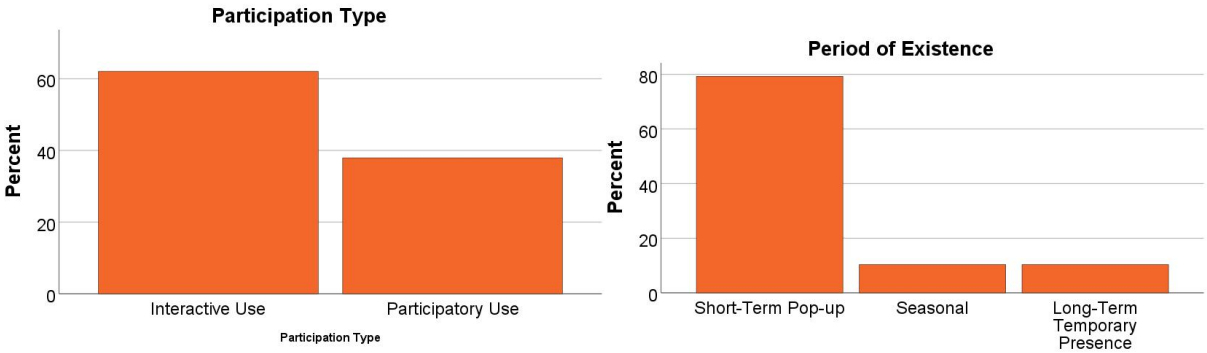


Figure 5-11 Participation Types and Cycles (Activity Category)

Source: Author's own drawing

5.3.2 Typological Analysis

The clustering dendrogram of the cases was generated using the same method as in the previous section (Figure 5-12). According to the dendrogram results, the selected 29 cases of temporary architecture and spatial construction gradually form several stable clusters across multiple dimensions, including "temporary facility types," "dominant functions," and "atmosphere shaping."

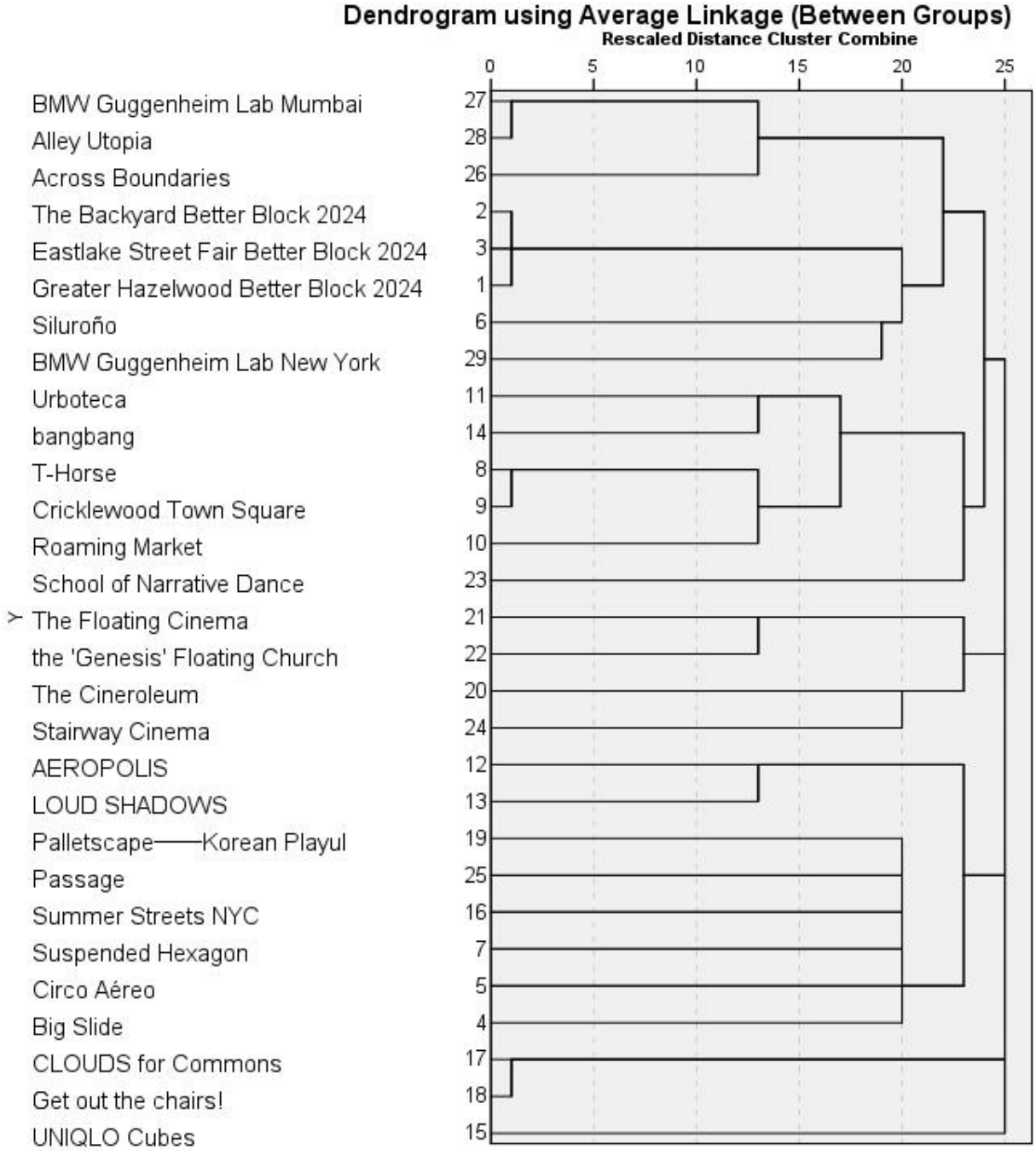


Figure 5-12 Cluster Analysis (Activity Category)

Source: Author’s own drawing

Table 5-3 Leisure and Activities Type – Prototypes

Prototype	SOT [5]	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC [6]
		Installation Types	IF [7]	Function	Atmosphere Creation	PT [8]	
Type 1. Modular Leisure Installation Type	SI /CO min. cas.s: PA /SV	Modular frame structures / Hand-assembled furniture / Packaged design modules (Graffiti + Shipping containers + Stage)	AD	Neighborhood gatherings / Recreational activities / Community events	Framework structures composed of vintage materials (bamboo or wood) or specialized enclosure materials (e.g., semi-transparent membranes) to create distinctive atmospheres; or rapid spatial activation through the convenience of modular installations	PM /IE	ST min. cas.s: LT /PO
Type 2. Deployable Spatial Type	PI min. cas.s: SI	Repurposed vehicles (with deployable spatial configurations) / Portable spatial demarcation systems (e.g., Sand-and-wall assemblies)	MB	Neighborhood gatherings / Performances / Training sessions / Workshops	Spatial configurations formed by deploying repurposed vehicle installations to create distinctive atmospheres; or spatial demarcation through portable devices, with atmosphere generated through programmed activities	PM /IE	ST /PO min. cas.s: LT

[5]SOT=Spatial Organization Type; SI=Stand in; SV=Subversion; CO=Coexistence; PA=Parasite; PI = Pioneer; min. cas.s=a minority of cases

[6] UC=Usage Cycle; ST=Short-term pop-ups; PO=Periodic openings; LT=Long-term temporary use

[7]IF=Intervention Forms; FX=Fixed; MB=Mobile; AD=EasilyAssembled/Disassembled

[8]PT=Participation; OW=One-way use; IE=Interactive experience; PM=Participatory modification

Type 3. Abandoned -Site Regeneration Type	SV min. cas.s : PA	Repurposed abandoned spaces including legacy transport infrastructure, buildings, and street corners	FX /AD	Pop-up cinemas / Community events	Renovation of abandoned spaces through new decorative elements or lightweight compone nts (e.g., screens, canopies) to create distinctive atmospheres integratin g old and new elements	PM /IE	ST
Type 4. Experimental Installation Art Type	PI /CO	Conceptually experimental installations (e.g., Repurposed construction cranes, Inflatable membrane structures, Myth-inspired sculptural elements)	AD /MB	Recreational activities / Performances / Neighborhood gatherings / Sports	Creation of unconventional spatial experiences (e.g., suspended elements, tr ansparent membrane structures) or distinctive atmospheres through a rtistic sculptural forms	PM /IE	ST

Source: Author's own drawing

From the clustering structure, it can be observed that multiple clear branches emerge at clustering distances of 10 – 15, while most clustering points aggregate at higher regions along the distance axis (approximately 20), indicating relatively low structural similarity among cases across multiple variable combinations. Based on the clustering structure characteristics in the dendrogram, it is comprehensively determined that dividing 26 cases into 6 clusters at a distance of 24 is relatively reasonable.

Following in-depth comparative and content analysis of these six categories, it was found that the hand-assembled furniture in Category 5 (Cases 17 and 18) exhibits significant "modular" characteristics, showing considerable similarity to Category 1 (Cases 27, 28...6, 29). Therefore, these cases can be incorporated into the same group and uniformly classified as the "Modular Installation Type". However, Case 6 in the first category does not possess relevant characteristics; instead, it leans more toward "art installation," showing high convergence with Category 4 (Cases 12, 13...5, 4). Similarly, Case 15 also exhibits analogous features. Consequently, both cases can be incorporated into Category 4 and uniformly classified as the "Experimental Installation Art Type".

After this adjustment, all cases are ultimately consolidated into four categories with internal consistency (see Table 5-3), enhancing both the logical rigor of the classification and

the representativeness and explanatory power of subsequent prototype extraction. Specifically, the four categories are as follows.

① Category 1: "Modular Installation Type"

This category features easily disassembled framing structures, modular furniture, or packaged installations as core facility types, forming a spatial system with high flexibility and adaptability. Its core logic lies in achieving rapid deployment and low-cost operation through easily assembled/disassembled structures, thereby temporarily activating public spaces.

In terms of functional positioning, this prototype primarily serves daily practices such as neighborhood gatherings, community activities, and entertainment activities, aiming to rebuild the connection between people and space. Material selection often employs natural materials with regional characteristics or nostalgic imagery, such as bamboo and wood, to create cultural atmosphere, or utilizes special enclosure structures like translucent materials that define spatial boundaries while maintaining visual permeability, creating an atmosphere that combines privacy and openness. In terms of usage, this prototype supports interactive experiences and public participation, encouraging residents to transform from spectators into activity organizers or space users, promoting the enhancement of community self-organization capabilities.This category includes Cases 27, 28, 26, 2, 3, 1, 29, 17, and 18.

② Category 2: "Deployable Spatial Type"

This category is characterized by mobile, rapidly assembled installation systems, primarily relying on modified vehicles (with deployable devices) or convenient spatial definition units (such as sand areas + walls, container combinations, etc.) to achieve flexible spatial generation and dynamic configuration.

Its core logic lies in completing spatial construction and functional transformation in a short time through highly mobile and low-technical-barrier construction methods, thereby adapting to diverse, temporary usage needs. Such installations typically feature modular structures that support rapid on-site assembly and disassembly, suitable for highly mobile urban activity scenarios such as community markets, street performances, temporary workshops, or training spaces.

At the functional level, this prototype primarily serves activities such as neighborhood gatherings, cultural exhibitions, and skills training. By transforming vehicle interior spaces or utilizing portable enclosure structures, it forms "micro-places" with clear boundaries and specific atmospheres, meeting functional needs while creating unique spatial experiences. These practices demonstrate that this prototype not only achieves "plug-and-play" physical

spaces but also promotes the resilient regeneration of urban public life through spatial mobility and contextual creation.This category includes Cases 11, 14, 8, 9, 10, and 23.

③ Category 3: "Abandoned-Site Regeneration Type"

The core strategy of this category is the reuse of idle or abandoned urban spaces, focusing on marginalized locations such as old transportation vehicles and street corner vacant lots, achieving functional transformation and activation through decoration or lightweight structures.

Its core characteristic lies in "renovative" transformation of existing spaces. Such interventions do not pursue complete reconstruction but rather, through functional intervention and atmosphere creation, endow abandoned spaces with new usage value and cultural significance while preserving original textures.

At the functional level, this prototype primarily serves functions such as pop-up cinemas and community activities, emphasizing the daily use of spaces. Its design often embeds into existing environments through subversion. For example, setting up screens within abandoned gas stations to form cinema spaces, thereby creating a "new use in old shell" spatial relationship.This category includes Cases 21, 22, 20, and 24.

④ Category 4: "Experimental Installation Art Type"

This category is driven by exploratory and artistic qualities, emphasizing the creation of immersive experiences with visual impact and conceptual expression in urban public spaces through non-traditional materials and unconventional structural forms.

Its core characteristic lies in employing exploratory and artistic installations, such as inflatable membrane structures, mythological constructions, and crane-suspended devices, breaking through conventional architectural forms and functional boundaries. Such installations are suitable for short-term pop-up activities, art festivals, community exhibitions, or public interactive projects.

At the functional level, this prototype primarily serves entertainment activities, neighborhood gatherings, or performances, but its essence transcends mere usage needs, aiming to activate spatial usage through artistic means. For example, creating floating spatial sensations through transparent membrane structures to enhance the possibility of viewer engagement and lingering activities.This category includes Cases 12, 13, 19, 25, 16, 7, 5, 4, 15, and 6.

5.4 Social Service Types

The social service typology emphasizes spatial equity and inclusivity, focusing on providing convenient and accessible daily services to the public—particularly vulnerable groups—through flexible, low-intervention installations and facilities. Among the 132 cases reviewed in this study, 8 cases belong to this category. Although numerically limited, these cases highlight the unique value of temporary spatial interventions in addressing social needs.

This section conducts an in-depth analysis of the classified cases, examining their common characteristics in spatial layout, activity organization, and facility configuration. The aim is to reveal how this typology addresses gaps in basic public services through spatial means, supporting community care, information dissemination, temporary rest areas, and other social functions, while effectively activating marginalized or low-vitality public spaces. Based on this analysis, replicable strategy prototypes are extracted to provide practical references for inclusive urban renewal.

5.4.1 Feature Analysis

Analysis of the sample cases indicates that this prototype, while maintaining temporality and spatial flexibility, places particular emphasis on the social equity dimension. Through highly accessible, low-threshold design strategies, it effectively responds to the spatial needs of vulnerable populations such as the elderly and low-income groups, demonstrating significant social inclusivity (see Appendix 2, Table 4).

Statistical results from the cases (Appendix 2, Table 4) reveal the following patterns: In terms of spatial organization types (Figure 5-13), "Coexistence Type" accounts for over 60%, indicating that most cases tend to coexist with existing spaces rather than replace or attach to them. Regarding intervention methods, "Easily Assembled/Disassembled Type" exceeds 60%, reflecting the temporary design's pursuit of flexibility and reversibility.

Among temporary facility types (Figure 5-14), "Temporary Framing Structure" accounts for the highest proportion at approximately 40%, becoming the predominant form; followed by "Small-Scale Installation Node" at approximately 25%. This indicates that most cases tend to utilize lightweight, modular structures to achieve spatial construction and functional transformation.

The distribution of primary project functions (Figure 5-15) is relatively concentrated. "Community Dining Space" and "Community Service Point" account for the highest proportions, each at approximately 25%, emerging as the dominant functional types,

demonstrating that under the social service typology, temporary facilities primarily focus on meeting residents' basic living needs and public service requirements.

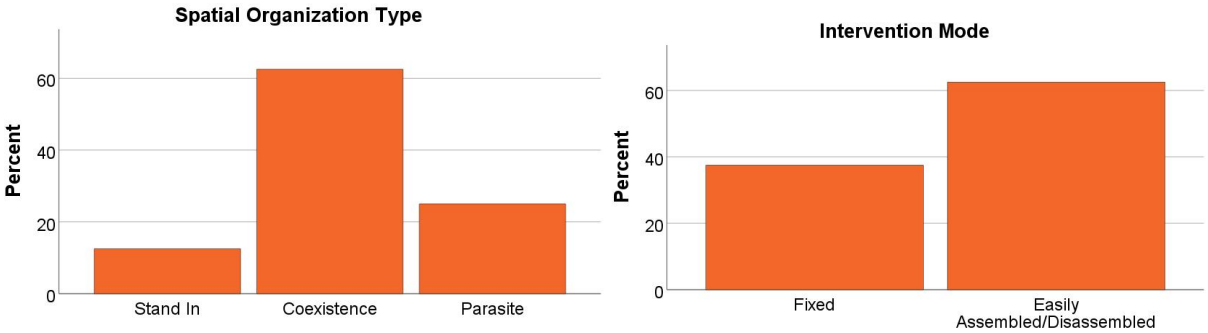


Figure 5-13 Spatial Organization Types and Intervention Types (Social Service Category)

Source: Author's own drawing

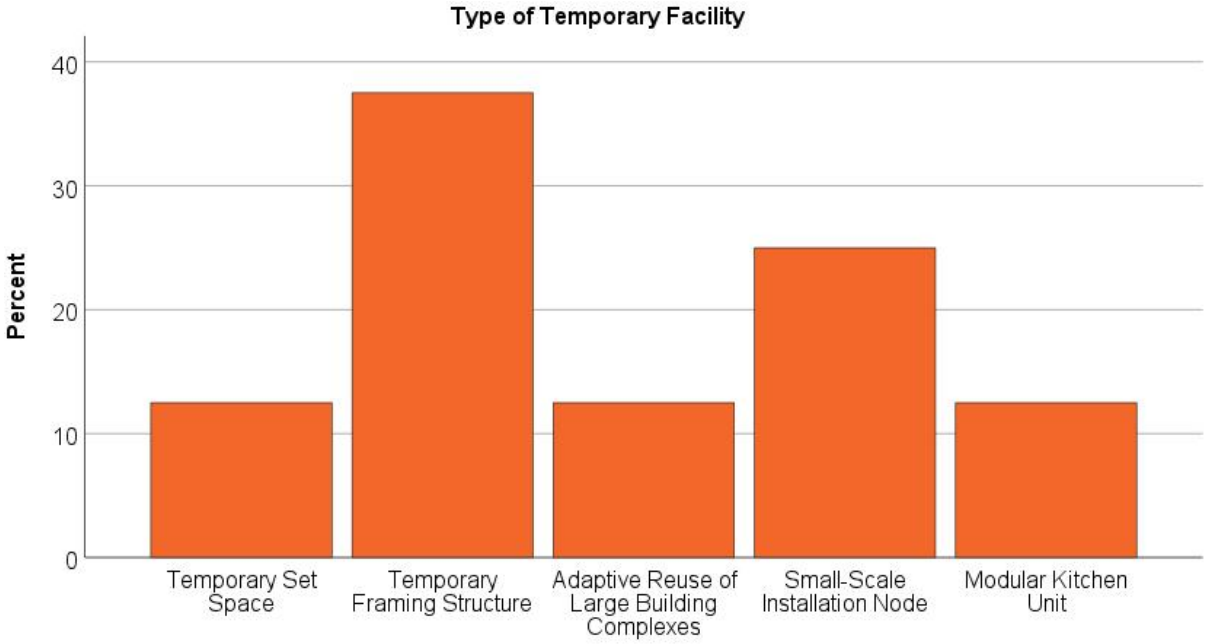


Figure 5-14 Temporary Facility Types (Social Service Category)

Source: Author's own drawing

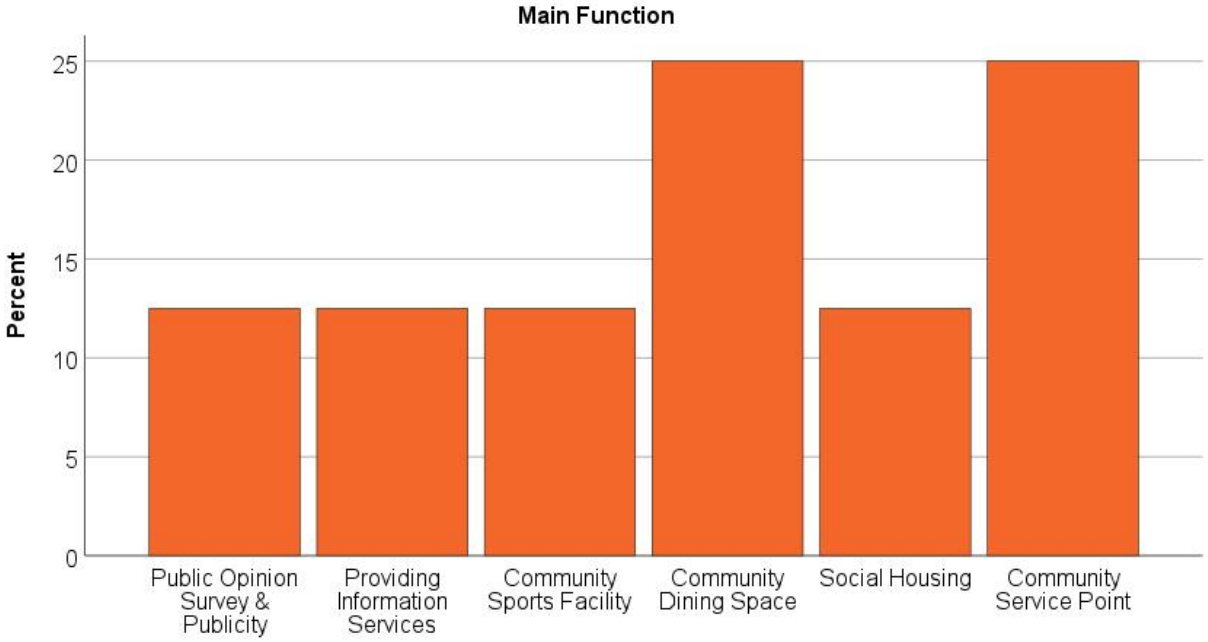


Figure 5-15 Primary Functions (Social Service Category)

Source: Author’s own drawing

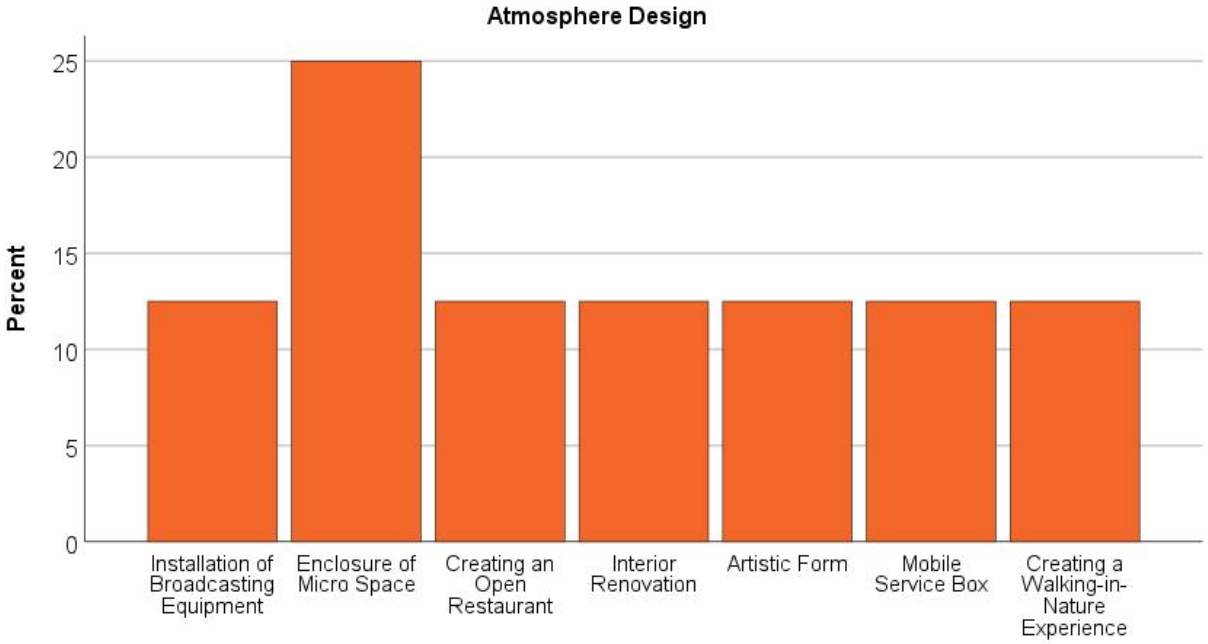


Figure 5-16 Atmosphere Creation (Social Service Category)

Source: Author’s own drawing

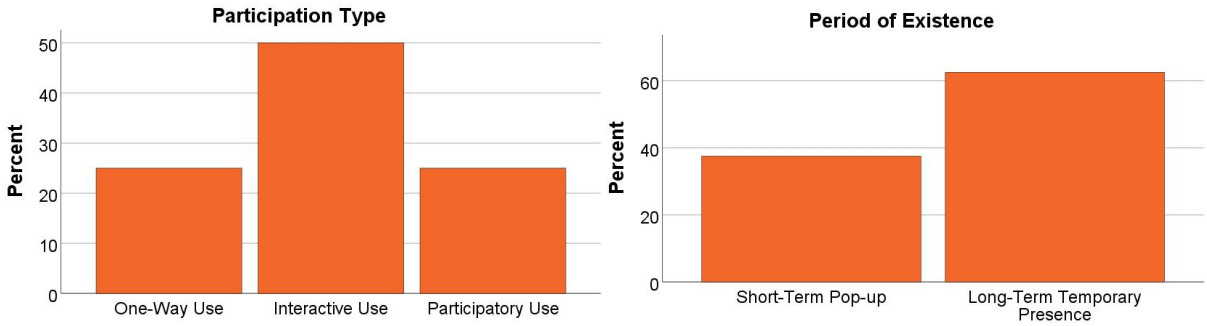


Figure 5-17 Participation Types and Cycles (Social Service Category)

Source: Author's own drawing

In terms of atmosphere creation (Figure 5-16), "Enclosure of Micro Space" accounts for the highest proportion at approximately 25%, indicating that most projects enhance place experience through the shaping of spatial scale and enclosure sensation. Other types such as "Open Dining," "Artistic Form," and "Natural Experience" show relatively similar proportions, reflecting diversified sensory creation approaches.

Regarding Participation Type (Figure 5-17), "Interactive Use" accounts for approximately 50%, significantly higher than "Unidirectional Use" and "Participatory Use," indicating that temporary spaces within this case group tend to promote immediate interaction between people and place. In terms of Period of Existence, "Short-Term Pop-up" accounts for a smaller proportion than "Long-Term Temporary Presence," at approximately 38%.

5.4.2 Typological Analysis

The cluster dendrogram between cases was generated using the same method as the previous section (Figure 5-18). From the dendrogram results, it can be seen that the selected 7 temporary architecture and spatial creation cases gradually formed several stable clusters across multiple dimensions such as "temporary facility type," "dominant function," and "atmosphere creation."

From the clustering structure, it can be observed that multiple clear branches appear after an aggregation distance of 15, and most aggregation points cluster in the higher regions of the distance axis (approximately 20), indicating that the structural similarity between cases is relatively low across multiple variable combinations. Based on the clustering structure characteristics in the dendrogram, it is comprehensively determined that dividing the 8 cases into 4 categories at a distance of 24 is relatively reasonable.

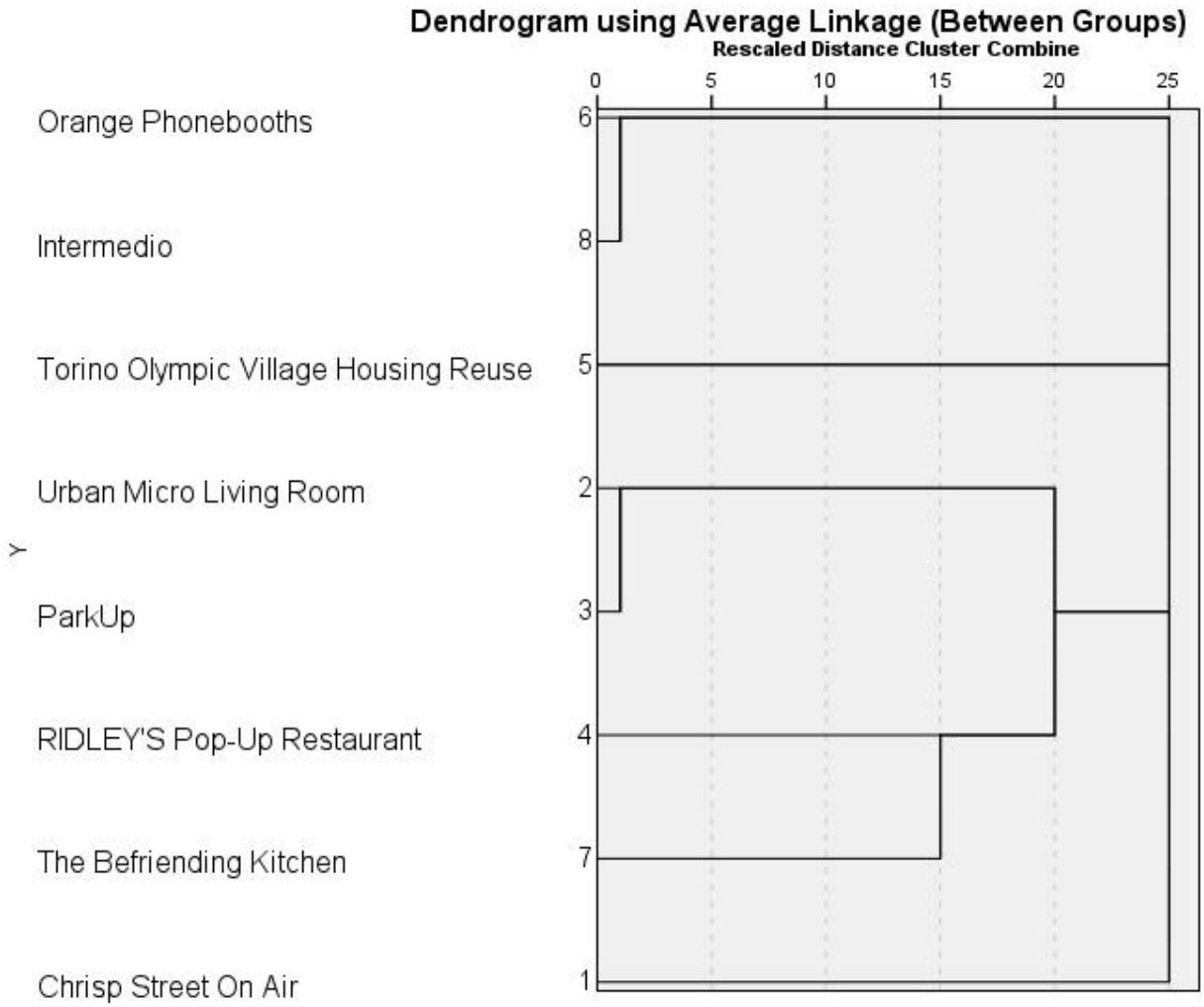


Figure 5-18 Cluster Analysis (Social Service Category)

Source: Author’s own drawing

After conducting in-depth comparative and content analysis of these 4 categories, it was found that Category 4 (Case 1), featuring a temporary radio station, exhibits significant "information exchange" characteristics, showing considerable similarity to Category 3 (Cases 2, 3, 4, and 7). Therefore, it can be incorporated into this group and uniformly classified under the "Light Structure for Information Exchange" category.

Following this adjustment, all cases were ultimately integrated into 3 categories with internal consistency (see Table 5-4). Specifically, these 3 categories are as follows.

Table 5-4 Social Services Type – Prototypes

Prototype	SOT [9]	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC [10]
		Installation Types	IF [11]	Function	Atmosphere Creation	PT [12]	
Type 1. Micro -Service Unit Type	CO /PA	Small installations, such as telephone booths	AD /FX	Providing simple convenience services	Creating special experiences through design	OW /IE	ST /LT
Type 2. Building Adaptive Reuse Type	CO	Sustainably reused buildings	FX	Residential/ Other	Enhancing comfort through renovation of old buildings	OW	LT
Type 3. Light Structure for Information Exchange Type	CO min. cas.s: PA /SI	Lightweight structures, such as temporary frames, single-bar systems, simple curtains, etc.	AD /FX	Residential/ Other	Combining lightweight structures and decoration to create simple, open, and eye-catching spaces	PM /IE	ST /LT

Source: Author's own drawing

① Category 1: "Micro-Service Unit Type"

This category centers on lightweight service facilities as the core carrier, typically manifested as small-scale installations such as renovated old telephone booths or convenience service kiosks. Its core characteristic lies in providing basic public services through limited space, with functions focused on simple convenience services such as charging, coffee vending, or emergency contact, aiming to meet the public's immediate needs in specific scenarios. Such facilities commonly adopt coexistence or parasite strategies, embedding into

[9]SOT=Spatial Organization Type; SI=Stand in; SV=Subversion; CO=Coexistence; PA=Parasite; PI = Pioneer; min. cas.s=a minority of cases

[10] UC=Usage Cycle; ST=Short-term pop-ups; PO=Periodic openings; LT=Long-term temporary use

[11]IF=Intervention Forms; FX=Fixed; MB=Mobile; AD=EasilyAssembled/Disassembled

[12]PT=Participation; OW=One-way use; IE=Interactive experience; PM=Participatory modification

existing environments without altering the original spatial structure—for example, transforming abandoned telephone booths into multi-functional service nodes or placing temporary installations in street corner vacant lots. This category includes Cases 6 and 8.

② Category 2: "Building Adaptive Reuse Type"

The core strategy of this category involves functional conversion and adaptive renovation of existing buildings, focusing on the sustainable reuse of large-scale building complexes through renovation and updates to enhance their usability and environmental adaptability. Its core characteristic lies in adopting a coexistence strategy, introducing new functions while preserving the original building structure and historical texture, thereby achieving spatial functional regeneration. Such interventions are typically fixed, emphasizing long-term operation and stability. A typical example is the housing reuse project of the Torino Olympic Village, which transformed former athlete dormitories into family residences and student housing for the public, addressing urban housing shortages while achieving sustainable transformation of large public buildings. This category includes Case 5.

③ Category 3: "Light Structure for Information Exchange Type"

This prototype primarily intervenes in existing urban or community spaces through lightweight, easily assembled temporary facilities, achieving information exchange objectives with minimal structural investment. Such projects typically employ lightweight materials such as temporary frames and simple curtains. Their structural characteristics not only reduce construction difficulty but also endow the facilities with significant reusability and flexible deployment capabilities. The core function lies in providing the public with a convenient venue for information exchange and dissemination, supporting informal interactive behaviors such as community announcements, event promotion, art displays, or public dialogue. Such facilities commonly adopt a coexistence strategy—for example, setting up temporary frames in small plazas between buildings to form micro-enclosed spaces serving as small-scale information exchange zones. This category includes Cases 2, 3, 4, 7, and 1.

5.5 Economic Incubation Types

The economic incubation type emphasizes cultivating emerging business formats and small-scale commerce through low-cost, short-cycle means, focusing on providing suitable experimental scenarios for innovative projects under limited resource conditions. Among the 132 cases summarized in this study, 10 cases belong to this type.

This section will further analyze the common characteristics of the classified cases in terms of spatial layout, activity organization, and facility combinations, revealing the operational logic of the economic incubation type in promoting commercial experimentation and regional economic development, and summarizing its replicable spatial strategies.

5.5.1 Feature Analysis

Through analysis of the samples, it can be observed that the prototypes of such cases demonstrate the potential of temporary architecture in urban economic operations. These projects not only lower the threshold for commercial experimentation but also promote regional economic development through flexible intervention and rapid establishment of business formats (see Appendix 2-Table 5).

Statistical results of the cases (Appendix 2-Table 5) show that in terms of spatial organization methods (Figure 5-19), the cases exhibit a relatively balanced distribution, with "Coexistence" and "Pioneer" types accounting for the highest proportions at 30% each. Regarding intervention methods, the vast majority of cases adopt the "Easily Assembled/Disassembled" type, exceeding 70%, indicating that lightweight, rapidly deployable construction methods are mainstream in this case group.

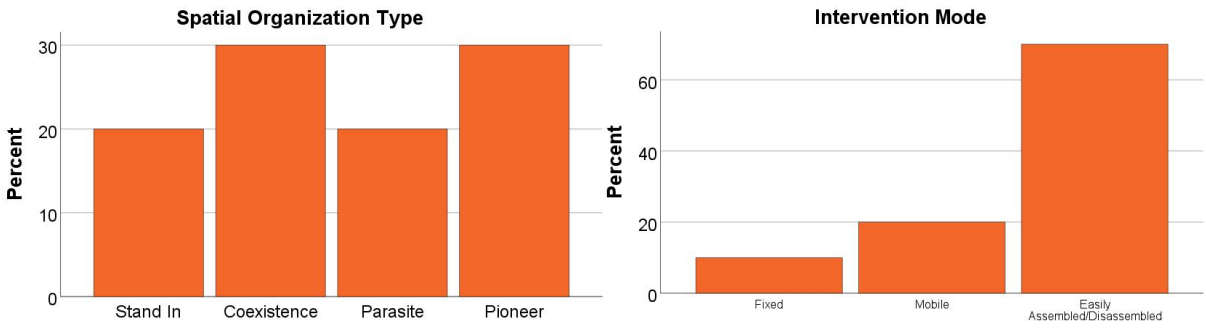


Figure 5-19 Spatial Organization Types and Intervention Types (Economic Category)

Source: Author's own drawing

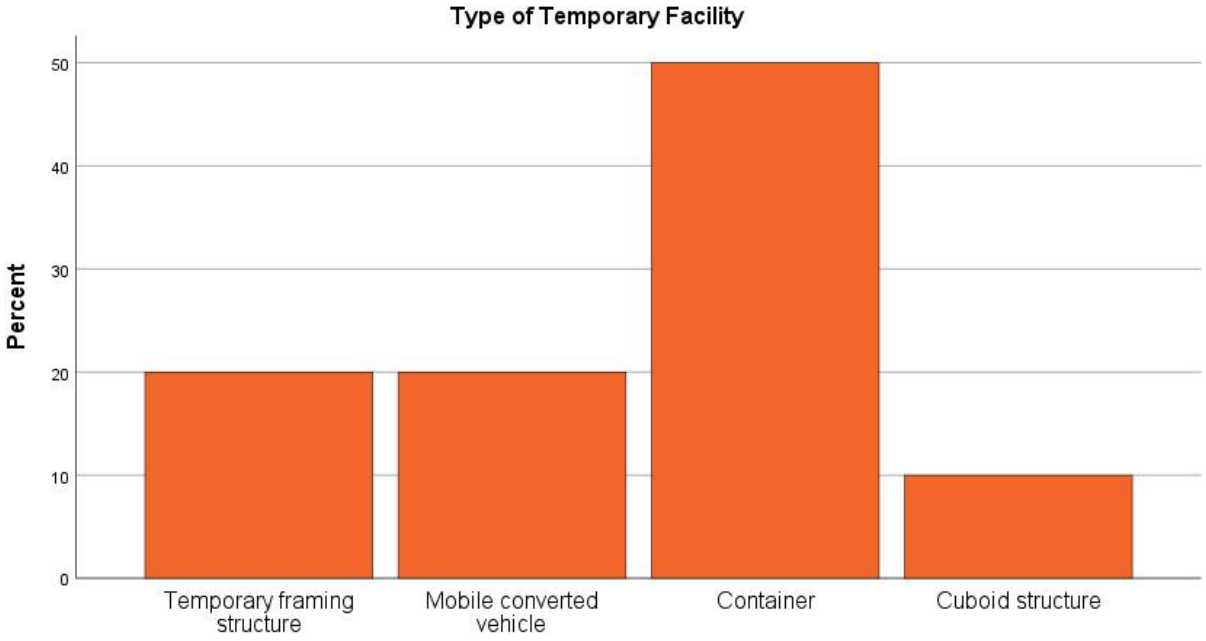


Figure 5-20 Temporary Facility Types (Economic Category)

Source: Author's own drawing

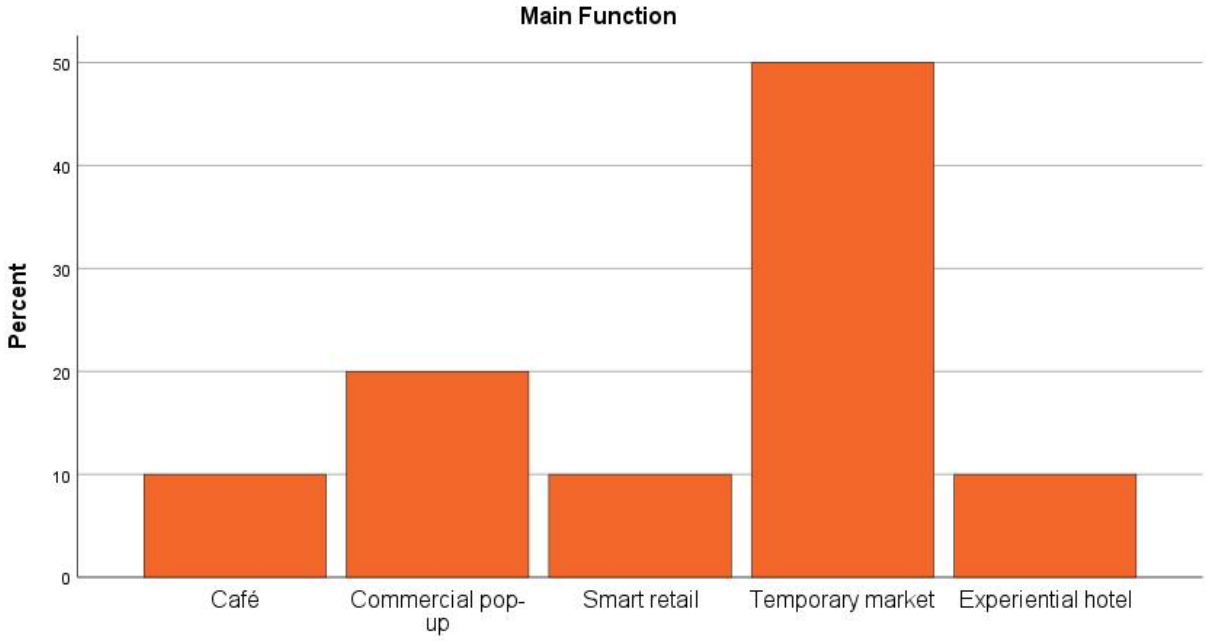


Figure 5-21 Primary Functions (Economic Category)

Source: Author's own drawing

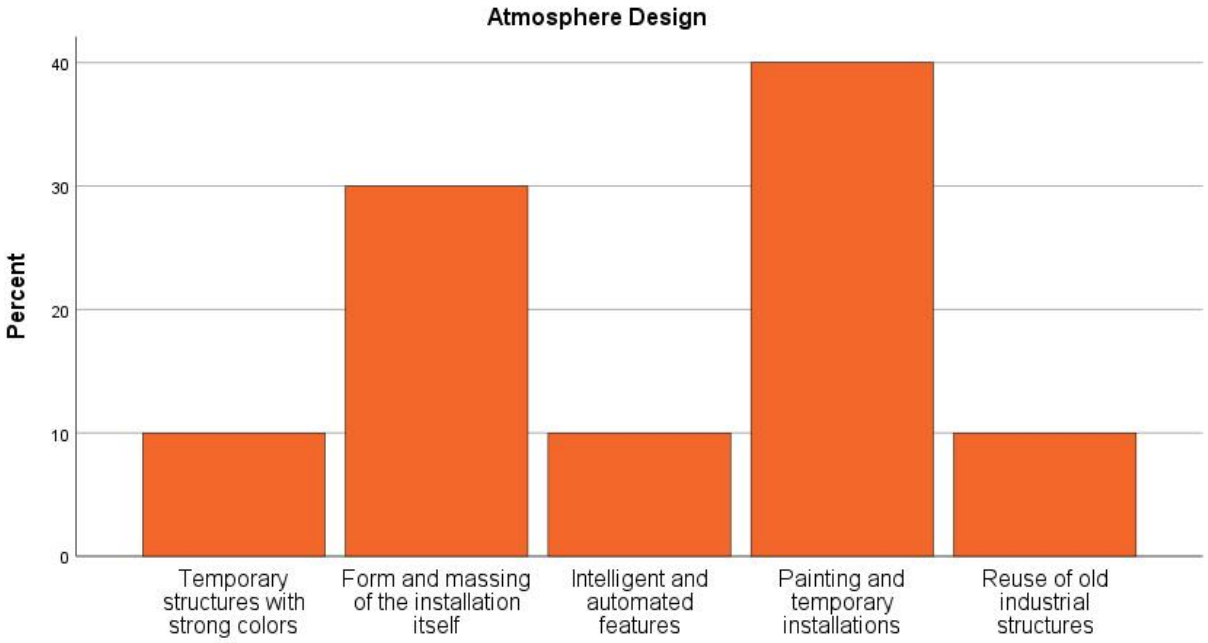


Figure 5-22 Atmosphere Creation (Economic Category)

Source: Author's own drawing

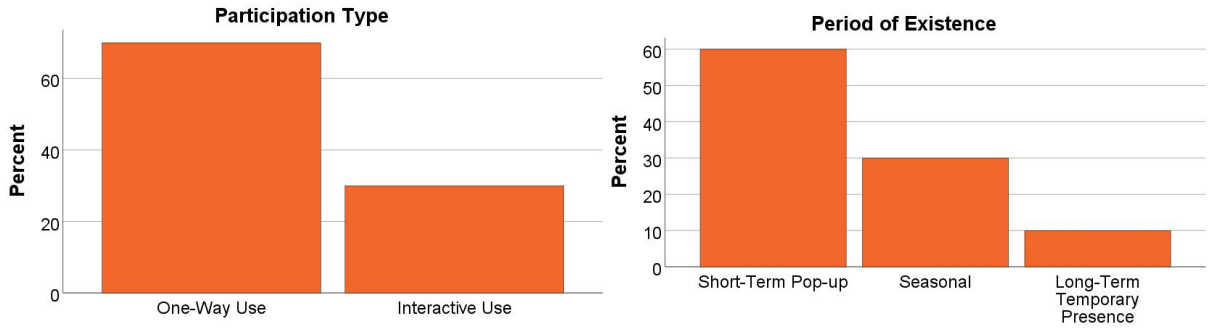


Figure 5-23 Participation Types and Cycles (Economic Category)

Source: Author's own drawing

From the perspective of temporary facility types (Figure 5-20), "Containers" account for the highest proportion at 50%, demonstrating their widespread adoption as standardized, mobile spatial carriers in this case group. "Temporary framing structures" and "Mobile converted vehicles" each account for approximately 20%, reflecting their representativeness as flexible, rapidly deployable facility types in projects. "Cuboid structures" have a lower proportion of only 10%, indicating that such specific morphological installations are relatively special and less commonly applied.

In terms of primary function distribution (Figure 5-21), "Temporary markets" account for the highest proportion at 50%, showing that this function is most suitable for temporary use under the economic incubation type. Next is "Commercial pop-ups" at 20%, demonstrating

that brand display also occupies an important proportion in the cases. Other functions such as "Cafés," "Smart retail," and "Experiential hotels" each account for approximately 10%.

In terms of atmosphere creation (Figure 5-22), "Painting and temporary installations" account for the highest proportion at 40%, indicating that most cases in this group enhance the visual appeal of places through colors, patterns, and small-scale installations. "Form and massing of the installation itself" ranks second at 30%, showing that the structural form itself serves as an important medium for atmosphere shaping.

Regarding participation methods (Figure 5-23), "One-way use" accounts for a significantly high proportion of approximately 70%, while "Interactive use" accounts for about 30%, indicating that most cases in this group primarily involve browsing, consumption, or short-term stays, with users mostly participating passively. In terms of usage cycles, "Short-term pop-up" has the highest proportion at 60%, while "Seasonal use" accounts for approximately 30%.

5.5.2 Typological Analysis

The dendrogram of case clustering was generated using the same method (Figure 5-24). From the dendrogram results, it can be observed that the selected 10 temporary architecture and spatial creation cases gradually form several stable clusters across multiple dimensions, including "temporary facility type," "dominant function," and "atmosphere creation."

From the clustering structure, it can be observed that multiple clear branches emerge after the aggregation distance reaches 15. Most aggregation points occur at higher regions on the distance axis (20-25), indicating relatively low structural similarity among cases in terms of multiple variable combinations. Based on the clustering structure characteristics in the dendrogram, it is comprehensively determined that dividing the 10 cases into 4 categories at a distance of 23 is relatively reasonable.

After conducting in-depth comparative and content analysis of these 4 categories, it was found that Category 4 (Case 1) exhibits significant "artistic" characteristics with its red canopy, showing similarities to Category 2 (Cases 2, 9, and 4), and can therefore be incorporated into this group, collectively classified as the "Artistic Commercial Installation Type." Following this adjustment, all cases were ultimately consolidated into 3 categories with internal consistency (see Table 5-5). Specifically, these 3 categories are as follows.

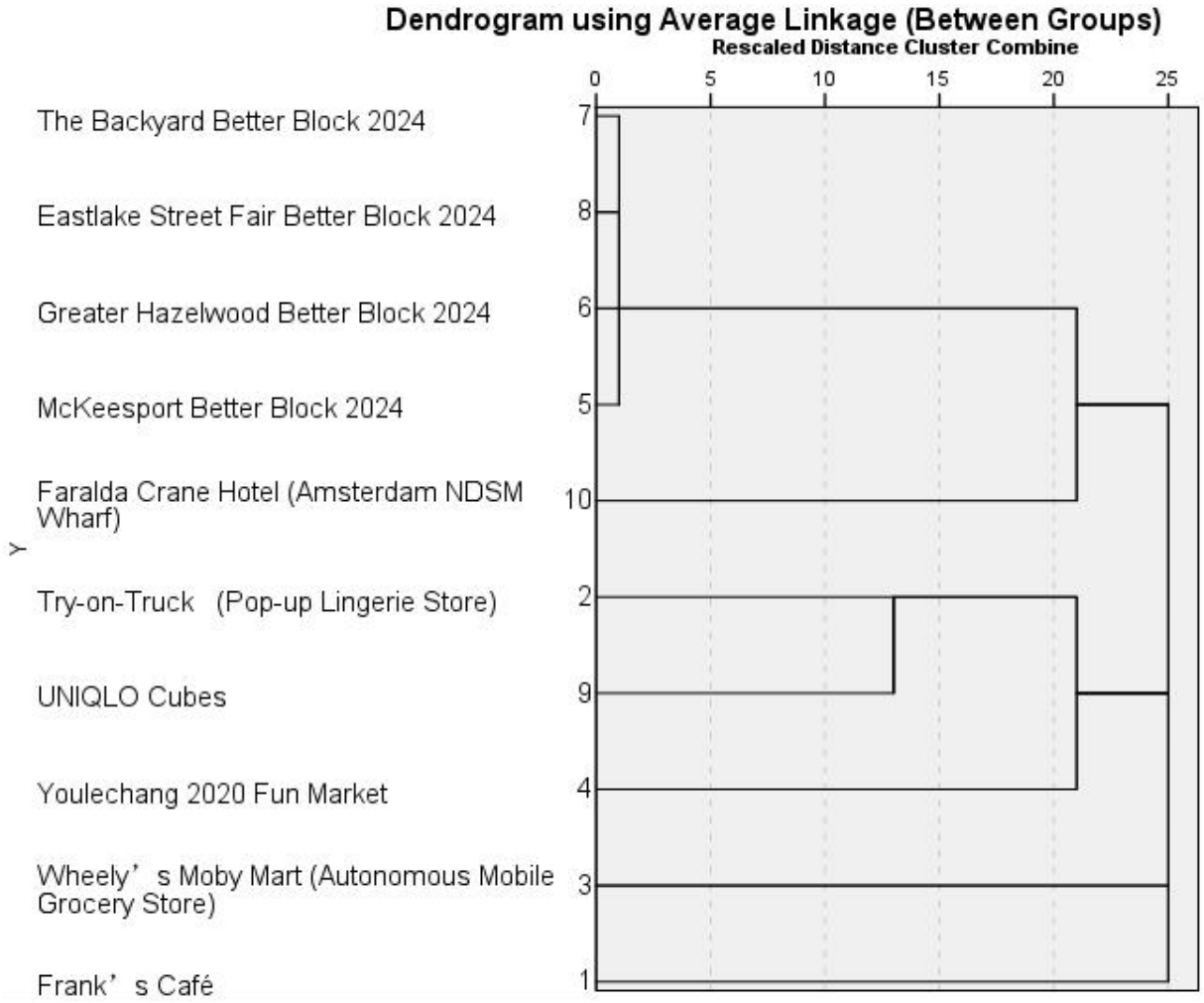


Figure 5-24 Cluster Analysis (Economic Category)

Source: Author’s own drawing

① Category 1: "Commercial Container Type"

This category uses shipping containers as the core carrier, providing flexible, low-cost spatial solutions for short-term commercial activities through temporary installations. Its core characteristic lies in transforming industrial transport containers into commercial units, with common forms including container stalls, temporary market nodes, or modular hotels. Functionally, this prototype primarily serves temporary commercial activities such as festival markets and pop-up taverns, emphasizing rapid market response and low-barrier entrepreneurial support. Through visual means such as graffiti art, lighting installations, and color coordination, combined with the industrial texture of the containers themselves, it creates consumption scenarios with unique recognizability and atmospheric appeal, attracting public engagement and participation. This category includes Cases 7, 8, 6, 5, and 10.

② Category 2: "Artistic Commercial Installation Type"

This category uses installation systems that integrate artistic expression and commercial functions as the core carrier, transforming brand display, product experience, or consumption behavior into a sensory experience through artistic forms. Its core characteristic lies in breaking through the single functionality of traditional retail spaces, emphasizing the deep integration of artistry and commerciality. Its deployment methods are mostly easily assembled/disassembled or mobile, adapting to short-term operational needs such as pop-up events, temporary markets, or brand promotions. Functionally, this prototype primarily serves brand display and product experience, with common forms including artistic pop-up stores and thematic exhibition-style shops. Through artistic form language—such as symmetrical structures, exaggerated colors, or dynamic shapes—it enhances recognizability and memorability, boosting consumers' willingness to purchase and share. This category includes Cases 2, 9, 4, and 1.

③ Category 3: "Smart Commercial Installation Type"

This category uses commercial installations integrating artificial intelligence, Internet of Things, and automation technologies as the core carrier, achieving full digitalization of product display, transaction settlement, and user interaction through modular intelligent systems. Its core characteristic lies in transforming traditional retail behavior into intelligent experience scenarios based on data-driven and autonomous operations, with common forms including unmanned retail vehicles and AI shopping guides, exploring possibilities for future commercial forms. Functionally, this prototype primarily serves smart retail and new consumption experiences, emphasizing unmanned operation, self-service, and personalized recommendations. Through technological means such as sensors, facial recognition, and voice interaction, it constructs a highly automated, precisely responsive shopping environment, not only improving operational efficiency but also creating entirely new consumption pathways. This category includes Case 3.

Table 5-5 Economic Incubation Type – Prototypes

Prototype	SOT [13]	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC [14]
		Installation Types	IF [15]	Function	Atmosphere Creation	PT [16]	
Type 1. Commercial Container Type	SI min. cas.s: CO /PI / PA	Containers for commercial activities, such as container stalls	AD min. cas.s: FX	Commercial activities, such as temporary markets, hotels, etc.	Creating a unique atmosphere through graffiti combined with temporary installations and containers	OW	ST min. cas.s: LT
Type 2. Artistic Commercial Installation Type	CO min. cas.s: PI / PA	Artistic commercial installations, such as pop-up stores with artistic forms	AD min. cas.s: MB	Brand display/ product experience/ temporary markets, etc.	Enhancing recognizability through artistic forms	OW /IE	ST /PO
Type 3. Smart Commercial Installation Type	PI	Smart commercial installations, such as unmanned retail vehicles	MB	Smart retail	Creating a completely new shopping experience through intelligence and automation	IE	PO

Source: Author's own drawing

[13]SOT=Spatial Organization Type; SI=Stand in; SV=Subversion; CO=Coexistence; PA =Parasite; PI = Pioneer; min. cas.s=a minority of cases

[14] UC=Usage Cycle; ST=Short-term pop-ups; PO=Periodic openings; LT=Long-term t emporary use

[15]IF=Intervention Forms; FX=Fixed; MB=Mobile; AD=EasilyAssembled/Disassembled

[16]PT=Participation; OW=One-way use; IE=Interactive experience; PM=Participatory m odification

5.6 Eco-Environmental Types

The Ecological Environment Type emphasizes rapid intervention in spatial units with weak ecological functions through temporary means, focusing on the ecological benefits of the public environment. Among the 132 cases summarized in this study, 11 cases belong to this type.

This section will further analyze the common characteristics of the classified cases in terms of spatial layout, activity organization, and facility combinations, and summarize their replicable spatial strategies.

5.6.1 Feature Analysis

Through analysis of the samples, the results reveal the functional logic of cases within the Ecological Environment Type in improving the ecological environment, enhancing green experiences, and promoting human-nature interaction, providing a referential strategic framework for future urban renewal and ecological intervention in public spaces (see Appendix 2-Table 6).

Statistical results of the cases (Appendix 2-Table 6) show that in terms of spatial organization methods (Figure 5-25), cases of the Economic Incubation Type exhibit a relatively dispersed pattern, with "Stand In" and "Coexistence" accounting for the highest proportion (approximately 28%), reflecting that facilities are mostly flexibly embedded based on existing sites. Regarding temporary intervention types, the majority adopt easily assembled/disassembled intervention methods, accounting for approximately 90%, demonstrating strong characteristics of rapid deployment and low-cost transformation.

In terms of temporary facility types (Figure 5-26), cases of the Economic Incubation Type show a diversified distribution, with temporary park installations accounting for the highest proportion (approximately 27%), becoming the predominant facility form. Other types—mobile installations, wooden structures, temporary frameworks, and natural plant materials—account for relatively low proportions (approximately 9% each), indicating that although forms are diverse, their usage frequency is relatively limited.

Regarding the distribution of primary functions (Figure 5-27), the dominant functions of cases in the Economic Incubation Type are primarily green leisure areas (approximately 36%) and temporary parks (approximately 28%). The former focuses on providing accessible public leisure spaces, while the latter emphasizes providing rich green environments to improve site environmental quality and attract foot traffic. Overall, this type tends to focus on open leisure and ecological improvement as its core, enhancing regional vitality and gathering pedestrian

flow through the improvement of public space quality.

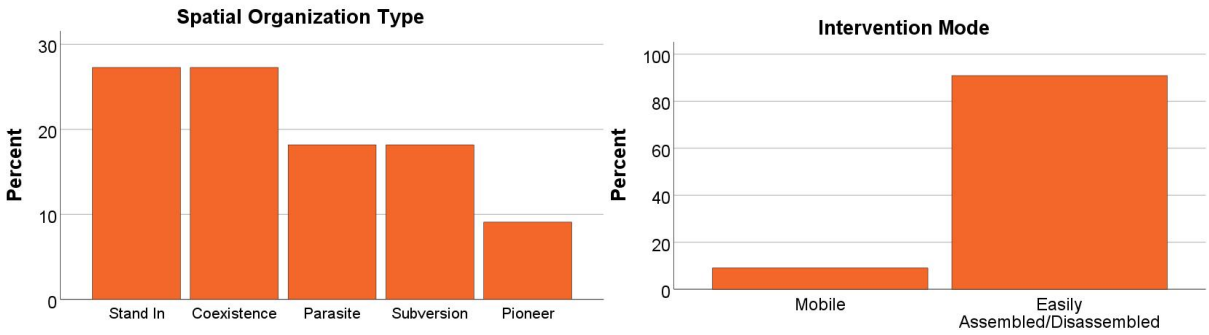


Figure 5-25 Spatial Organization Types and Intervention Types (Environmental Category)

Source: Author's own drawing

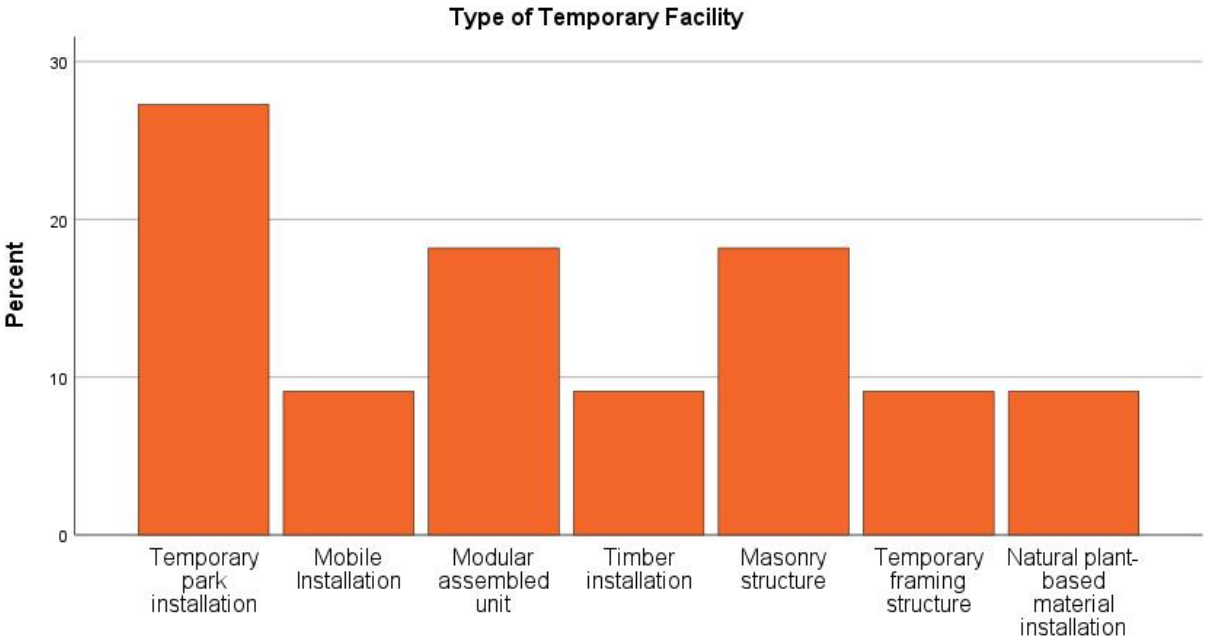


Figure 5-26 Temporary Facility Types (Environmental Category)

Source: Author's own drawing

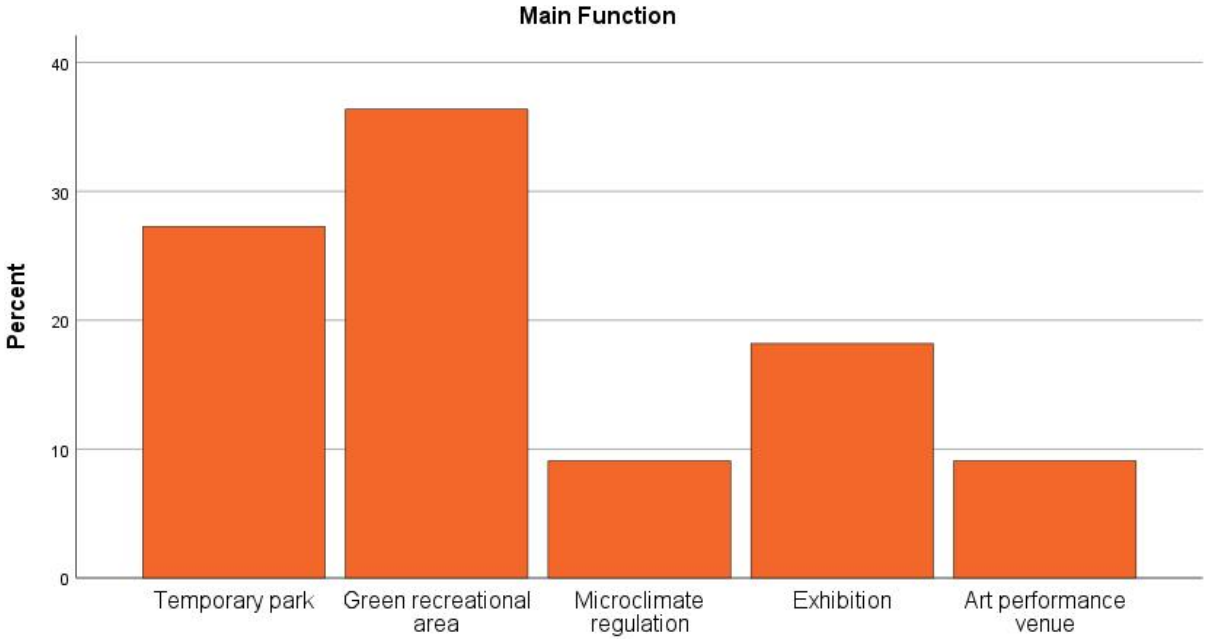


Figure 5-27 Primary Functions (Environmental Category)

Source: Author’s own drawing

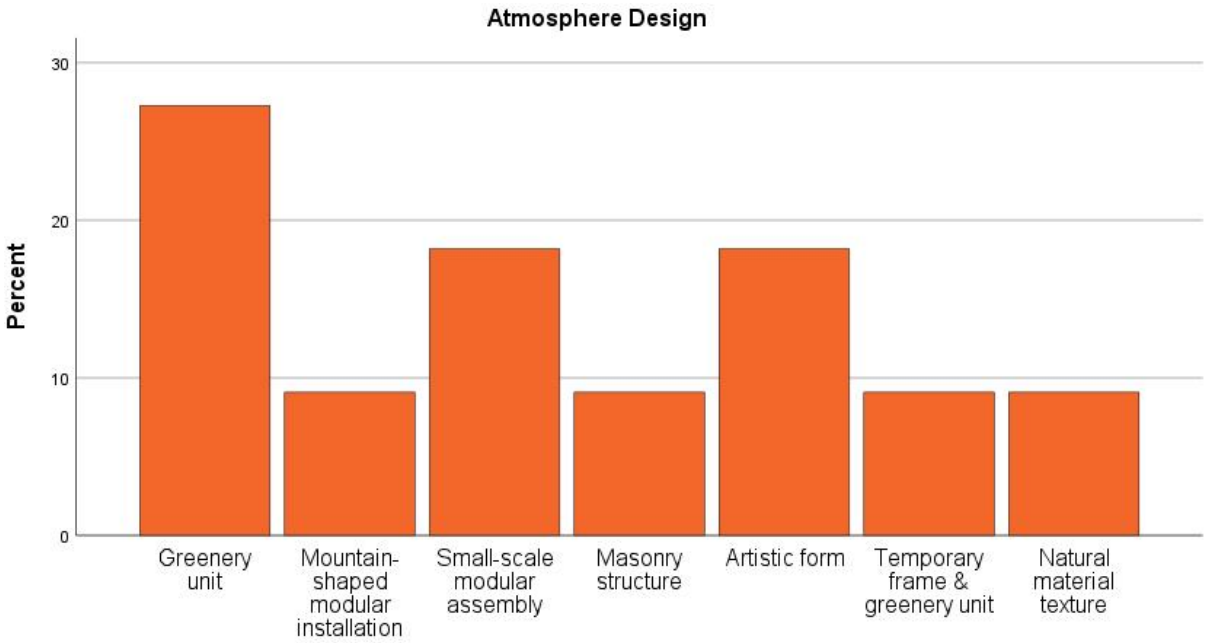


Figure 5-28 Atmosphere Creation (Environmental Category)

Source: Author’s own drawing

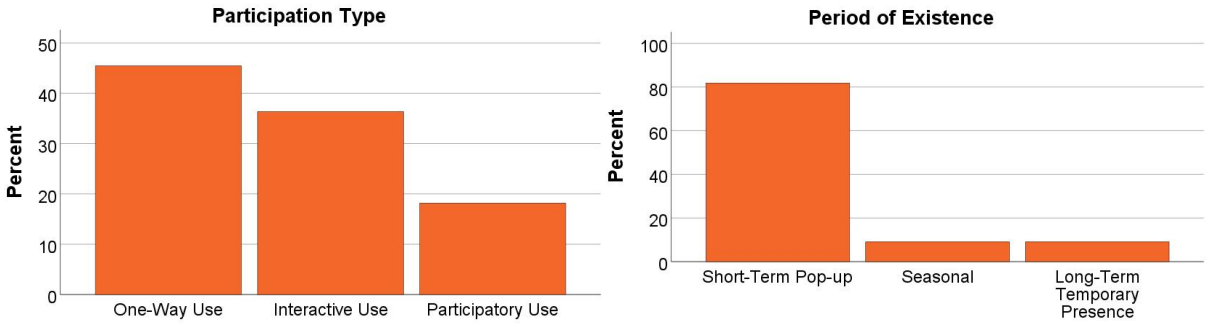


Figure 5-29 Participation Types and Cycles (Environmental Category)

Source: Author's own drawing

In terms of atmosphere creation (Figure 5-28), the atmosphere shaping methods of Economic Incubation Type cases are most prominently characterized by green units (approximately 27%), emphasizing the enhancement of environmental attractiveness and comfort through vegetation and ecological elements. Small modular assembly and artistic forms account for similar proportions (approximately 18% each), indicating that some projects create visual focal points and enhance spatial experience through recognizable installations or artistic elements.

Regarding participation methods (Figure 5-29), the chart shows that participation methods in Economic Incubation Type cases are primarily one-way usage (approximately 47%), indicating that most projects focus more on providing basic services or space supply rather than emphasizing deep interaction. In terms of usage cycle, cases are predominantly short-term pop-ups (approximately 82%), reflecting the characteristics of the Economic Incubation Type in pursuing rapid construction, low-cost experimentation, and flexible replacement.

5.6.2 Typological Analysis

The clustering dendrogram of cases was generated using the same method (Figure 5-30). From the dendrogram results, it can be observed that the selected 10 temporary architecture and spatial creation cases gradually form several stable clusters across multiple dimensions, including "temporary facility types," "dominant functions," and "atmosphere shaping."

From the clustering structure, it can be observed that multiple clear branches emerge after aggregation distance 15, with most aggregation points clustering at higher regions of the distance axis (20-25), indicating relatively low structural similarity among cases across multiple variable combinations. Based on the clustering structure characteristics in the dendrogram, it is comprehensively determined that dividing the 11 cases into 4 categories at

distance 24 is relatively reasonable.

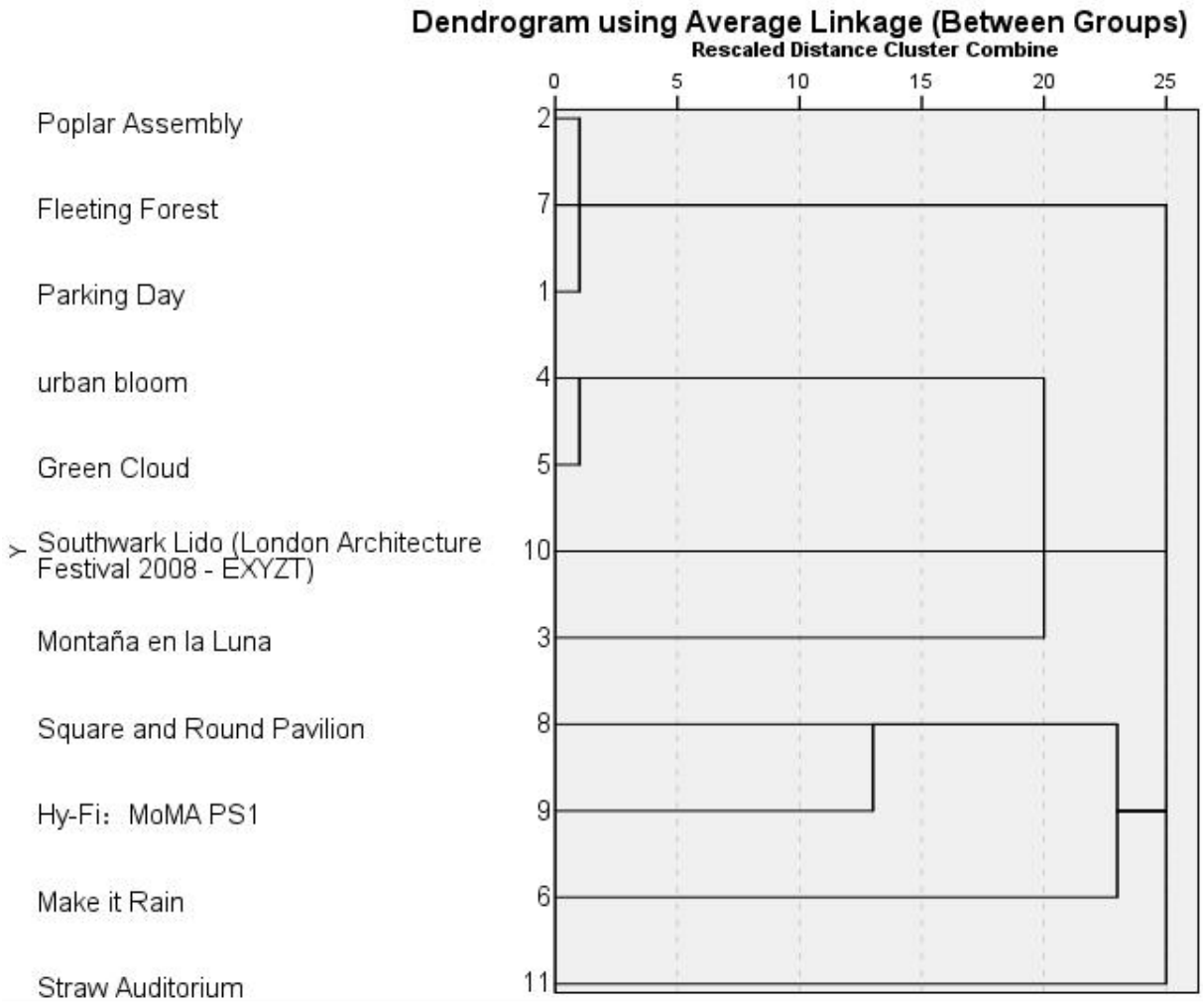


Figure 5-30 Cluster Analysis (Environmental Category)

Source: Author's own drawing

After conducting in-depth comparative and content analysis of these four categories, it was found that Category 4 (Case No. 11) featuring straw materials exhibits significant "eco-friendly" characteristics, showing considerable similarity to Category 3 (Cases No. 8, 9, and 6). Therefore, it can be incorporated into this group and collectively classified as the "Eco-Conscious Installation Type." Following this adjustment, all cases were ultimately consolidated into three categories with internal consistency (see Table 5-6). Specifically, these three categories are as follows:

Table 5-6 Ecological Environment Type – Prototypes

Prototype	SOT [17]	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC [18]
		Installation Types	IF [19]	Function	Atmosphere Creation	PT [20]	
Type 1. Park-Like Installation Type	CO /SV /SI	Creating temporary park-like spaces through simple installations, typically equipped with greening and resting facilities	AD	Temporary park	Creating a natural and tranquil atmosphere through the imitation of park imagery	OW /IE /PM	ST
Type 2. Modular Greening Installation Type	SI /CO /SV / PA	Constructing green areas through modular structures and interlocking components	AD /MB	Temporary parks, rooftop greening, etc.	Utilizing modular greening to simulate natural terrain and create a natural atmosphere	OW /IE /PM	ST /LT
Type 3. Eco -Conscious Installation Type	PA /SI /CO	Creating installations or structures using natural or eco-friendly materials, such as organic brick towers, straw walls, etc.	AD	Exhibitions, performances, etc.	Leveraging the texture of natural materials combined with artistic forms to render an intimate and warm atmosphere	OW /IE	ST /PO

Source: Author's own drawing

① Category 1: "Park-Like Installation Type"

The core strategy of this category involves creating temporary spaces resembling parks through simple installations, aiming to transform idle urban spaces into open venues with natural imagery and recreational functions. Its key characteristic lies in rapidly establishing a

[17]SOT=Spatial Organization Type; SI=Stand in; SV=Subversion; CO=Coexistence; PA =Parasite; PI = Pioneer

[18] UC=Usage Cycle; ST=Short-term pop-ups; PO=Periodic openings; LT=Long-term temporary use

[19]IF=Intervention Forms; FX=Fixed; MB=Mobile; AD=EasilyAssembled/Disassembled

[20]PT=Participation; OW=One-way use; IE=Interactive experience; PM=Participatory modification

park-like spatial atmosphere within a short timeframe, creating a sense of tranquility through simulated natural elements. These installations typically feature basic greening and resting facilities, mitigating the oppressive feeling of urban environments while enhancing users' sense of belonging and relaxation experience, fulfilling the public's psychological needs for natural environments and serene spaces. This category includes Cases No. 2, 7, and 1.

② Category 2: "Modular Greening Installation Type"

The core strategy of this category focuses on constructing greening areas through modular, interlocking structural units, aiming to transform spaces into green nodes with ecological functions and visual appeal. Its key characteristic involves employing modular components (such as vegetation units, landscape steps, etc.), forming flexible and varied greening layouts through combination, assembly, and reconstruction. Such installations typically possess easily assembled/disassembled or mobile characteristics, supporting rapid deployment and adaptation to different site conditions, widely applied in temporary parks, rooftop greening, and similar projects. Functionally, these installations not only provide visual beautification and shading/cooling effects but also enhance ecological functions by simulating natural terrain (such as undulating slopes, miniature wetlands) and introducing vegetation. This category includes Cases No. 4, 5, 10, and 3.

③ Category 3: "Eco-Conscious Installation Type"

The core strategy of this category involves constructing installations using natural or eco-friendly materials, emphasizing ecological responsibility throughout the design and construction process, conveying sustainable development concepts through material selection and craftsmanship. Its key characteristic lies in adopting renewable, biodegradable, or recycled materials (such as organic brick towers, straw walls, wood, etc.), combined with handcrafted construction or low-tech techniques, forming spatial carriers with natural texture and artistic expressiveness. These installations not only provide physical space usage but also create an intimate, warm, and emotionally resonant atmosphere through the rustic beauty and handmade texture of the materials themselves. Such installations typically possess easily assembled/disassembled characteristics, supporting rapid deployment and subsequent material recycling, widely applied in exhibitions and performance projects. This category includes Cases No. 8, 9, 6, and 11.

5.7 Chapter Summary

This chapter focuses on cross-domain practices of temporary urbanism, systematically organizing typical temporary project cases across five major categories: cultural activation, leisure and activities, social services, economic incubation, and ecological environment. Feature analysis and typological induction were conducted from aspects including facility characteristics, functions, and atmosphere. Based on this foundation, universally applicable and transferable temporary design strategy prototypes were extracted, providing expandable design content support for the temporary transformation of the Olympic Village.

Research findings indicate that these temporary strategies derived from everyday urban contexts not only possess high adaptability and low-cost advantages but also provide direct design references and methodological support for the temporary renewal of the Olympic Village.

Chapter6 Evolution, Current Status, and Spatial Research of the Turin Olympic Village Site

The sustainable utilization of Olympic heritage has emerged as a central issue in the fields of international sports and urban planning. The Olympic Village site of the 2006 Turin Winter Olympics, as a significant component of the Games, provides a typical case study for examining the long-term value transformation of Olympic heritage through its transition process from event services to urban regeneration. This chapter focuses on the Turin Olympic Village site, employing a multidimensional and systematic research framework to conduct an in-depth analysis of its evolutionary trajectory and spatial reconstruction process from event-oriented functions to urban functions.

The research encompasses four progressive dimensions: historical context analysis, current architectural assessment, spatial interpretation, and usage demand analysis. It not only examines the historical evolution of the site from construction to operation but also emphasizes the correlation between current usage conditions and future development directions. Through an integrated methodology combining historical document analysis, field surveys, and software-based analysis, this chapter aims to reveal the functional transitions across different periods, current status and development potential, spatial characteristics, and functional gaps of the Olympic Village site. The findings provide empirical evidence and theoretical support for the sustainable management of Olympic heritage.

6.1 Research on Historical Evolution of the Site

Tracing the historical evolution of a site serves as the foundation for understanding its current spatial conditions and future development potential. As an urban space with multiple identities, the Ex-MOI complex not only carries historical imprints of industrial heritage, Olympic infrastructure, and immigrant housing but also reflects shifts in urban development strategies and policy orientations across different periods. Therefore, analyzing its historical evolution process helps clarify how the site gradually transitioned from "industrial storage use" to "Olympic functional zone" and "social housing concentration area," and was ultimately incorporated into the "Health and Innovation Park (PSRI)" strategy. The spatial redefinition, policy introduction, and social responses experienced throughout this process represent not only critical junctures in the specific site transformation but also reflect the evolution of urban governance logic and heritage reuse concepts. Based on this understanding, this section will explore the functional roles of the Ex-MOI site across different stages from a

historical development perspective, providing solid background support for subsequent analysis of heritage regeneration and governance mechanisms.

6.1.1 Historical Context of Location

The former General Markets (Ex-Mercati Generali) area located in southern Turin, Italy, represents a significant urban district with extensive geographical coverage and rich historical layers. Situated between the Lingotto and Borgo Filadelfia districts, this area connects to the historic Nizza Millefonti district via a pedestrian bridge constructed during the 2006 Winter Olympics, forming a spatial entity characterized by strong industrial features and regional connectivity.

In terms of administrative divisions, this area belonged to Turin's 9th District prior to 2016, and has been incorporated into the 8th District since 2016, which includes San Salvario, Cavoretto, and Borgo Po. The former 9th District extended south to Moncalieri city, north to Bramante Avenue, west to Unione Sovietica Avenue, and east to Unità d'Italia Avenue. The historical evolution of this area holds significant importance for understanding its current urban morphology and functional layout.

The Lingotto district originated from the expansion of the Barriera Nizza area, initially comprising several small villages that were already documented in the 1867 Rabbini cadastral map. With the construction of the Turin-Genoa railway, the area began to develop a clear urban structure and gradually evolved into a crucial industrial core in southern Turin, most notably represented by the establishment of the famous Fiat factory.

In contrast, the Filadelfia-Lingotto West area maintained agricultural use for an extended period until undergoing structural transformation in the early 1920s. With the construction of industrial facilities and increased residential settlement, particularly the development of the former general markets and customs buildings, the area's urbanization process accelerated significantly, rapidly replacing the original rural landscape.

Within the entire district, the Borgo Lingotto area (now known as the Lingotto-Nizza Millefonti district) occupies the largest area, particularly encompassing the complete former general markets complex, making it the core research area. The adjacent Borgo Filadelfia district (Figure 6-1), as a small community, has geographical boundaries extending north to Bramante Avenue, south to the railway-traversed Lingotto district, east to Zino Zinie Avenue, and west to Unione Sovietica Avenue. This area gained recognition for housing the fruit and vegetable wholesale market (Mercato Ortofrutticolo) and customs building (Dogana), located near Lingotto railway station, and was long known as the "General Markets Area" (Mercà

Generaj).

Following the gradual cessation of market operations in 2003, Borgo Filadelfia residents initiated petitions requesting a name change. Ultimately, "Filadelfia" became the new name for the area, commemorating the historic Filadelfia Stadium and symbolizing the continuity of local identity and cultural memory.

From the perspective of urbanization history, the area retained its agricultural landscape until the 1920s, subsequently evolving into a multifunctional urban district. During the 1930s, with the successive construction of the fruit and vegetable wholesale market, Piazza Galimberti (formerly known as Piazza Balilla), and the customs building, the area attracted substantial human traffic, rapidly developing a vibrant commercial atmosphere and forming a typical mixed-use urban neighborhood combining industrial and commercial functions[5].

However, following the market's closure in 2001, related commercial activities declined, with some infrastructure falling into disuse and functions gradually weakening. It was not until the 2006 Winter Olympics that the area encountered a significant spatial transformation opportunity. The former general markets buildings underwent extensive renovation during the Olympic period, being converted into the Olympic Village and the "Olympic Arch" (Arco Olimpico), which, with its monumental structural form, became a new landmark on Turin's urban skyline, marking the area's entry into a new phase of urban regeneration.



Figure 6-1 Location Map

Source: Author’s own drawing

6.1.2 Historical Evolution of the Turin Olympic Village

The former Turin Fruit and Vegetable Wholesale Market (Ex Mercato Ortofrutticolo all'Ingrosso), known today as Arcate Ex MOI, represents an architectural heritage with profound historical significance. Its construction dates back to the 1920s, when the municipal government acquired land from private owners through an expropriation decree issued by the

provincial governor, with the project funded by municipal investment. This undertaking emerged during Italy's Fascist era, embodying the regime's strategy of demonstrating national power and modernity through large-scale public works, and was regarded as one of the most significant urban construction projects in Turin at that time.

Designed by renowned architect Umberto Cuzzi in the Rationalist architectural style, the market was officially inaugurated on October 28, 1933. Covering an area of 44,500 square meters, the market was bounded by the Turin-Genoa railway to the east and Giordano Bruno Avenue to the west. The overall structure comprised two symmetrical large building complexes, each containing seven parallel reinforced concrete arcades. These arcades featured parabolic arch structures covered by nearly flat reinforced concrete roofs, equipped with "sawtooth" skylights (sheeds) that provided indirect lighting through a natural illumination system, ensuring spatial transparency and visibility. Each arcade measured approximately 100 meters in length, 9 meters in width, and 8.5 meters in height, offering considerable spatial flexibility.

The functional layout of the arcades demonstrated clear division of labor: half were dedicated to wholesale trading of agricultural products (fruits, vegetables, etc.), while the other half, designed with sufficient height, accommodated truck traffic and unloading operations, fully embodying the architectural logic under functionalist principles. The main entrance of the market was situated on Giordano Bruno Avenue, featuring a two-story building as its main façade, with a central water pressure regulation tower serving as a distinctive architectural element.

A large open square was preserved between the two main building complexes, serving traffic circulation and cargo distribution purposes. In 1935, a public space—Piazza Balilla—was added to the west side of the market, later renamed in honor of Italian political figure Tancredi Galimberti. In 1937, existing buildings within the original square were demolished to make way for new construction, which, due to its aircraft-like appearance, became popularly known as "L'Aeroplano" (The Airplane).

As one of the earliest significant commercial clusters in southern Turin, the market complex, together with Piazza Balilla, Lingotto Station, and the nearby customs building, formed the core structure of the southern commercial center, catalyzing rapid development of surrounding residential areas and service facilities, and driving the overall urbanization process of southern Turin[5].

During World War II, the market buildings suffered bombing damage. To mitigate air raid risks, the municipal government constructed three concrete-vaulted tunnels

approximately 10 meters underground on the northern side of the market, with partial remains still preserved today. After the war, damaged arcades were reconstructed, and the market resumed normal operations until its closure in 2001[4].

During the 2006 Winter Olympics, the Arcate Ex MOI complex underwent temporary restoration and conversion into Olympic Village reception facilities, including the famous "Olympic Arch" (Arco Olimpico). Located near the main Olympic venue Oval Lingotto and the transportation hub Lingotto Station, the site belonged to the peripheral area of the industrial and transportation mixed-use zone within urban planning. The decision regarding the Olympic Village's location and construction fell within the framework of Turin's "post-industrial urban transformation" initiated since the 1990s[51. In late 20th-century Turin, with the decline of the "factory city," numerous factories closed and were abandoned, creating substantial "industrial voids." This area originally constituted a traditional industrial belt housing Fiat automotive industries and their supporting facilities, experiencing prolonged industrial hollowing and functional suspension of land use. To address sustainable utilization challenges common to industrial heritage in this region and explore broader possibilities, local authorities collaborated with architectural consortia (including Benedetto Camerana, Steidle und Partner architectural firms, etc.) to preserve the industrial heritage language of the Arcate Ex MOI complex—such as steel structural frameworks, large-span spaces, and clear modular compositions—while integrating them into the modern Olympic Village architectural system, creating a unique "industrial heritage + event heritage" hybrid scenario.

The residential area design incorporated Olympic spirit, employing diverse design languages to achieve a fragmented character, facilitating future subdivision of plots. This strategy aimed to blur boundaries between temporary and permanent, industrial and residential uses, enabling adaptive reuse possibilities for Olympic facilities post-event[52].

However, despite initial planning under relevant Turin municipal policies[53] that envisioned the area as a "future community" post-Olympics, with plans to gradually transform it into citizen housing, cultural creative industries, and mixed-use living zones, actual development proved fragmented and lagging. Following the Olympics, the Olympic Village temporarily housed refugees, while the residential area underwent complex property rights divisions, resulting in ambiguous management ownership and lack of unified spatial operation coordination. More seriously, after the event concluded, the former market area remained largely vacant except for brief use as a temporary exhibition hall in 2012. Currently, its spatial structure is enclosed by fences with restricted access routes, connected only by a narrow

passage to the Olympic Bridge, gradually evolving into a forgotten "urban blind spot."

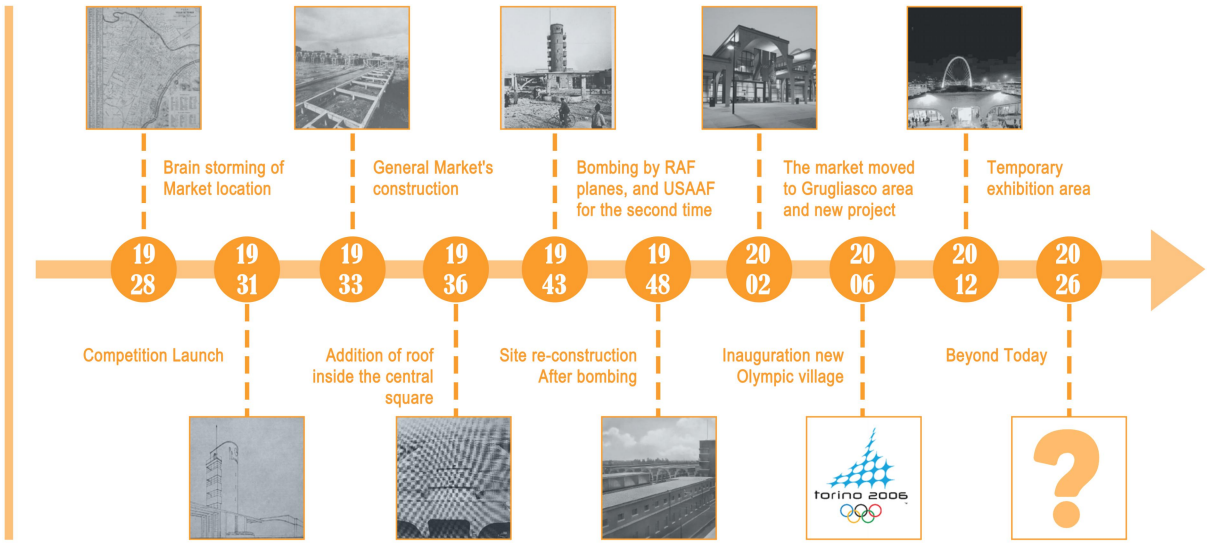


Figure 6-2 Chronology of Events

Source: Author's own drawing

6.1.3 Historical Process of Refugee Occupation

Following the conclusion of the 2006 Winter Olympics, the MOI residential area (i.e., portions of the Olympic Village buildings) designated for event reception failed to achieve its intended functional transformation, entering a prolonged seven-year period of vacancy (2006–2013). Although municipal authorities proposed repurposing certain buildings as student dormitories or social housing during this period, relevant plans were never implemented, leaving the site in an awkward state of functional stagnation and spatial vacancy.

Beginning in 2011, as geopolitical crises in North Africa intensified, the Italian government implemented the "Emergenza Nord Africa" (North Africa Emergency) policy, temporarily accommodating approximately 28,000 refugees. However, this program was abruptly terminated in February 2013, with the state providing some refugees with a 500-euro resettlement allowance and temporary travel permits. Consequently, a large number of refugees lost their official resettlement channels. With no other options available, approximately 1,000 refugees began entering four unused buildings within the MOI complex, occupying residential units originally part of the Olympic Village.

Initially, around 450 people moved in, gradually increasing to between 800 and 1,500 residents. This spontaneous occupation transformed the MOI complex into one of Italy's largest and longest-lasting informal refugee settlements, attracting significant attention from local society, media, and government authorities.

Between 2013 and 2017, the MOI buildings gradually evolved into an autonomous and community-oriented migrant settlement. Occupants primarily originated from Sub-Saharan Africa, with some holding legitimate asylum application status. Concurrently, local volunteer groups and civil society forces became involved, establishing an organization named "Comitato di solidarietà rifugiati e migranti" (Refugee and Migrant Solidarity Committee), which provided residents with fundamental services including language education, legal consultation, and material donations, forming a certain degree of social support network. However, due to the buildings' aging infrastructure and overcrowded conditions, living environments deteriorated year by year, with safety, sanitation, and management issues becoming increasingly prominent.

Faced with this complex situation, starting in 2017, the Turin municipal government, in collaboration with multiple administrative and civil organizations—including the Metropolitan City of Turin, the Piedmont Region, the Diocese of Turin, the Prefecture of Turin, and the Compagnia di San Paolo—jointly launched the "MOI – Migranti un'Opportunità di Inclusione" (Migrants: An Opportunity for Inclusion) project.

This initiative aimed to gradually resolve the area's informal residential status in a manner respecting human rights, assisting occupants in social integration and relocation through vocational training, legal support, and resettlement support measures. The clearance process continued until 2020, taking nearly three years to substantially complete, with former residents being relocated in batches to various types of social housing, shelter centers, or returning to their countries of origin[52].

The MOI occupation incident not only reflects the disorder and policy gaps in the post-event reuse of Olympic heritage but also reveals the complex reality where urban space and migration governance intersect and influence each other. This event has become a significant case in Turin's urban governance history concerning spatial justice, social inclusion, and functional reconstruction, providing profound insights for the future reuse of large-scale urban facilities.

6.1.4 Evolution of Property Ownership of the Former Market Buildings

As an integral component of Turin's 2006 Winter Olympics, the Ex MOI architectural complex became part of the city's heritage assets following the conclusion of the Games. Since 2006, its property ownership and usage rights structure has undergone a transition from singular public ownership to a multi-stakeholder subcontracting and concession-based model, forming a complex landscape in terms of spatial governance, reuse promotion, and social

function integration.

After the Olympics, property ownership of the Ex MOI complex remained concentrated under the Municipality of Turin (Città di Torino). However, through a series of agreements, the municipal authorities transferred usage rights (concessione) for certain plots to different institutions and entities. According to the Convenzione EX MOI signed in 2015 by the municipal government, the University of Turin (Università di Torino), and the Polytechnic University of Turin (Politecnico di Torino), multiple sub-blocks within the complex (such as Areas A, D, and F1 shown in Figure 6-3) were granted long-term usage rights to higher education institutions, with the intention of establishing life science research and public service centers.

Simultaneously, several other areas (such as Zones E, F2, G, and I) had been allocated earlier (post-2006) to the "20 March 2006 Foundation" (Fondazione 20 Marzo 2006). This foundation, established as a public fund institution with capital contributions from the municipal government, regional government, Metropolitan City of Turin, and CONI (Italian National Olympic Committee), was tasked with managing Olympic heritage and enhancing its economic and cultural value. Through collaboration with Parcolimpico S.R.L. (Olympic Park Management Company), the foundation assumed operational control over approximately 30% of the site, while the remaining portions were managed by private operators such as Set Up-Live Nation, forming a hybrid governance structure characterized by coexistence of "semi-public + private" entities[5].

Table 6-1 Area Statistics

Space	Total Area (m²)
Building A	617 ㎡
Building D	6,630 ㎡
Building E	3,060 ㎡
Building F1: 2,420 m² + 236 m² (mezzanine)	2,656 ㎡
Building F2	3,210 ㎡
Partial Building H: 237 m² (right side) + 59 m² (water tower)	296 ㎡
Covered arcade (A-D, C-F1)	1,930 ㎡

Source: Author’s own drawing

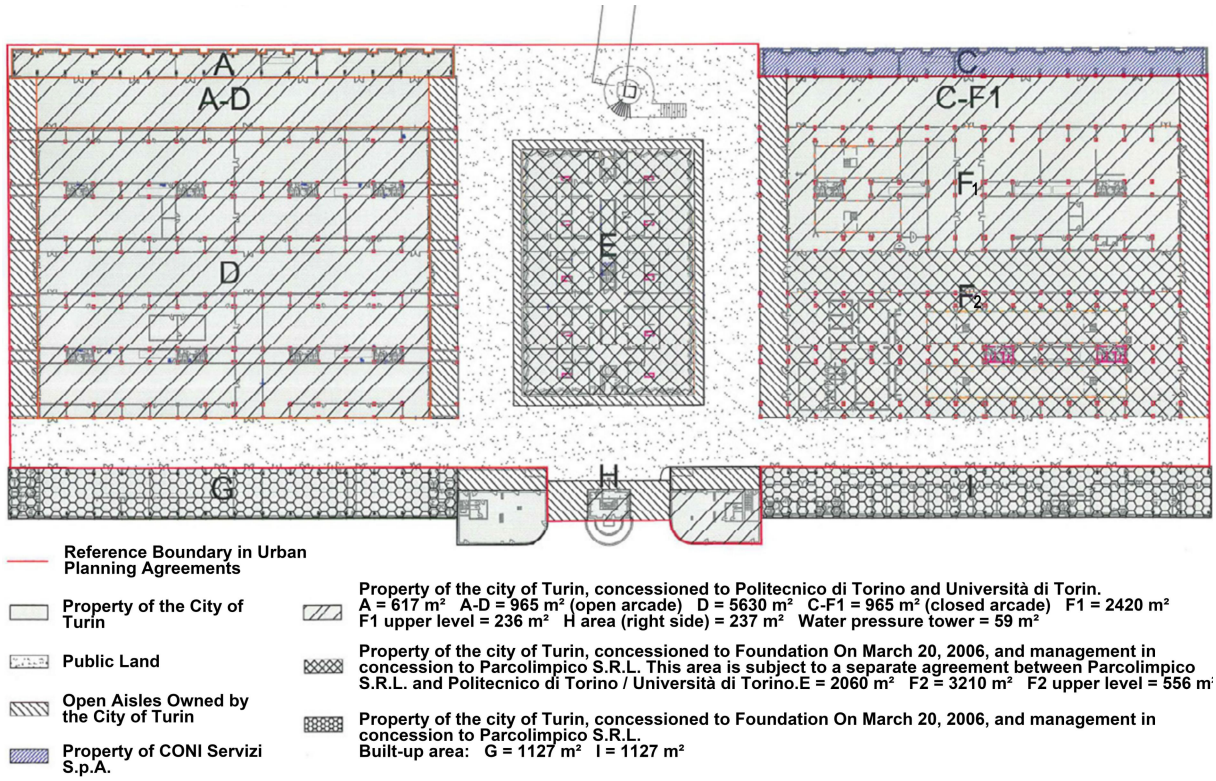


Figure 6-3 MOI Property Ownership Map

Source: Adapted by the author (Reference[5])

Although property ownership remains unified under municipal control, spatial usage rights have exhibited a trend toward high differentiation and specialized outsourcing. This evolutionary trajectory reflects that in the redevelopment of Olympic heritage, coordinating participation and interests among different institutions on the basis of public ownership represents a critical determinant of project success and urban integration.

6.1.5 Evolution and Current Status of Property Ownership in the Supporting Residential Area

Following the dissolution of the Organizing Committee (Agenzia 2006), the government specifically established the "20 March Foundation" (Fondazione 20 Marzo 2006) to assume management and development responsibilities for the residential area, attempting to promote asset reuse through phased lending, transfer, or agreement-based management approaches. Since then, the property ownership structure of the MOI residential area has undergone a gradual evolution from centralized municipal ownership toward coexistence of multiple stakeholders, including institutions such as ARPA, CONI, the Polytechnic University of Turin, and the Buena Vista social housing project acquiring partial usage rights in various forms. However, this multi-headed management structure lacking coordinated oversight triggered a series of governance dilemmas in subsequent development, laying the groundwork for illegal

occupation, functional misalignment, and spatial loss of control. Currently, the property ownership status of this area exhibits highly fragmented characteristics, with the disconnection between institutional frameworks and spatial governance constituting the core challenge in the redevelopment pathway of the MOI residential area.

(1) Research on Property Ownership Evolution

The majority of building ownership remains with the Municipality of Turin (Comune di Torino), without being transferred or allocated to other institutions. However, driven by fiscal pressures and post-Olympic heritage reuse requirements, usage rights have gradually differentiated, forming a pattern of multi-party ownership and decentralized management (Figure 6-5).

① 2007: Initial Differentiation Phase

In 2007, the municipal government successively signed agreements with multiple public institutions, beginning to allocate or transfer portions of buildings to different entities:

a. ARPA (Piedmont Environmental Protection Agency) obtained a 90-year surface right (diritto di superficie 90 anni) for Zone Lotto IV, intended for centralized office functions, with its urban planning designation correspondingly adjusted to "office/institutional land use."

b. A.T.C. (Regional Housing Agency, Agenzia Territoriale per la Casa) signed an agreement with the municipal government to take over portions of Zone Lotto V units, providing social housing for residents in difficulty.

c. C.O.N.I. (Italian National Olympic Committee) acquired portions of Zone Lotto III buildings through "property transfer (cessione immobiliare)" from TOROC (Comitato per l'Organizzazione dei Giochi Olimpici) and the municipal government, as part of the Olympic organization debt settlement scheme.

② 2007–2008: Introduction of Educational Use

In July 2007, the municipal government transferred three buildings in Zone Lotto III to the Polytechnic University of Turin (Politecnico di Torino) through a "temporary loan agreement (Cessione Temporaneo in comodato)," primarily for student dormitories and teaching spaces, with a usage period until June 30, 2008. Ownership was not transferred. Usage rights for the student dormitories were granted to Edisu (Student Services Agency), managed by Fondazione Falcolira, but in 2016, due to its financial instability, it was replaced by the Lo.Ca.Re. institution, which allocated some rooms to economically disadvantaged families and individuals with emergency housing needs.

③ 2010–2012: Diversification of Social Functions

In 2010, the municipal government lent the sixth building in Zone C1 to the Youth Hostel Association (Associazione Alberghi per la Gioventù), establishing a youth hostel with maintenance costs borne by the association. However, due to structural issues with the building, the originally planned youth hostel project could not be realized, ultimately being converted into a temporary accommodation facility operated by the Youth Hostel Association for families and populations with emergency housing needs. This lending was also conducted in the form of comodato (temporary usage agreement), with ownership remaining with the municipal government.

In 2012, Fondazione 20 Marzo 2006 (20 March Foundation) lent three buildings in its Zone Lotto III to the Buena Vista Social Housing project, signing a 30-year usage agreement (comodato 30 anni) for non-profit social housing management. Ownership remained with Fondazione 20 Marzo 2006.

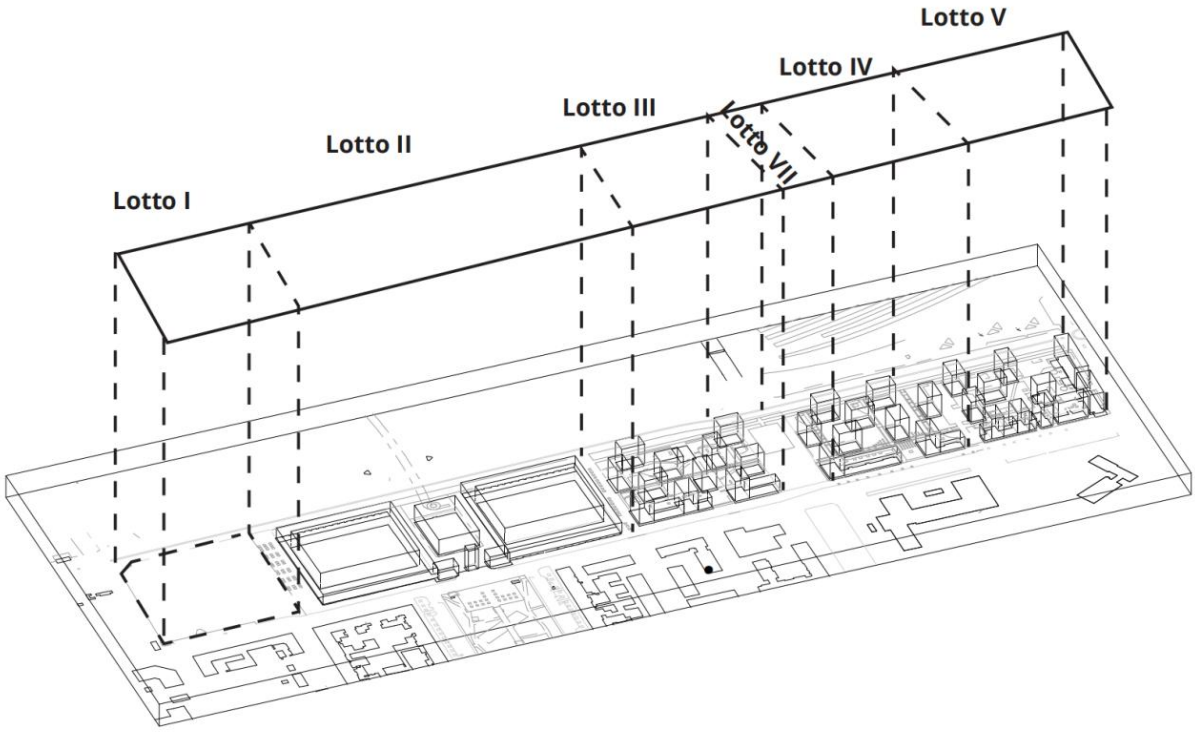


Figure 6-4 Olympic Village Zoning

Source: Reference [52]

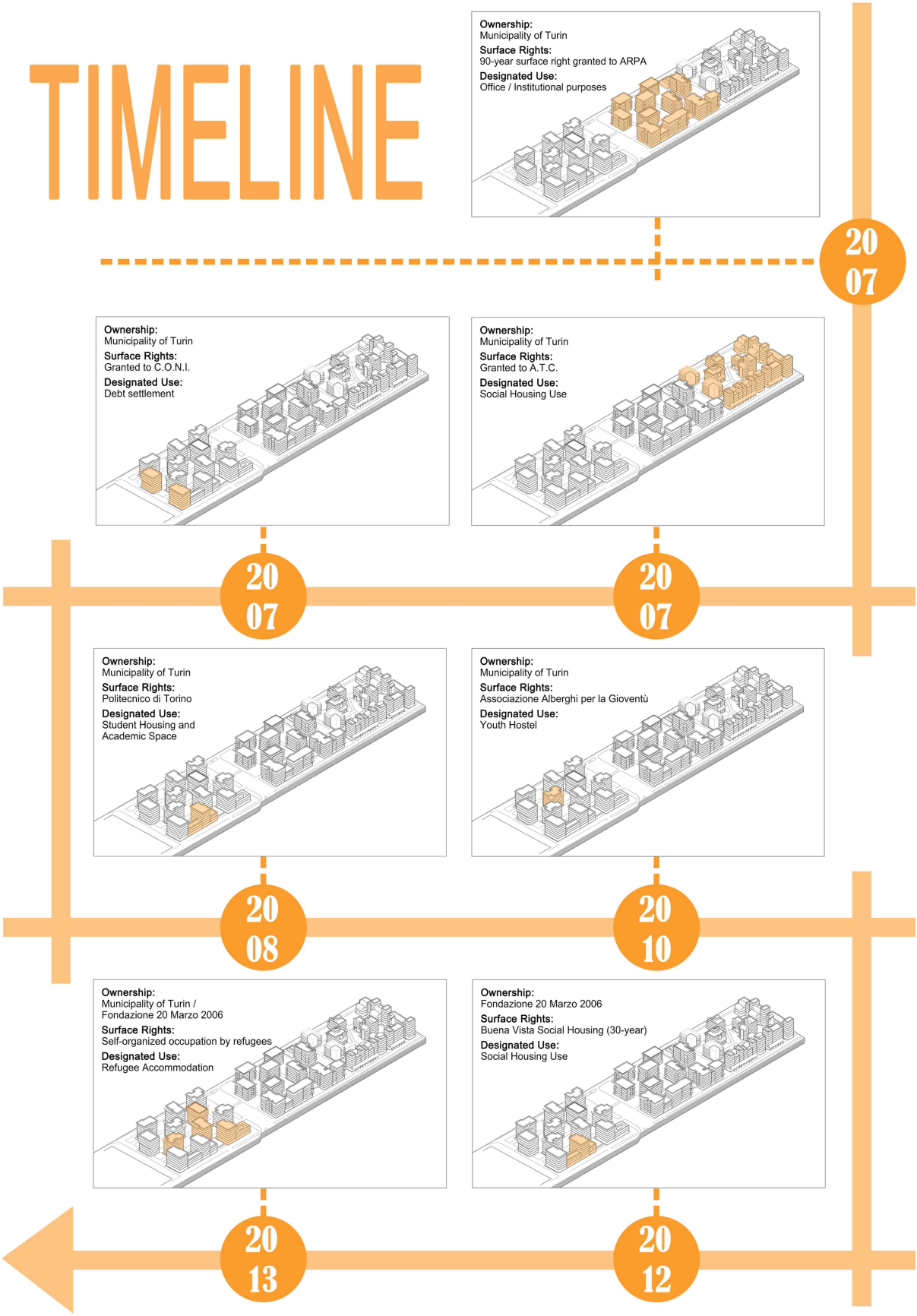


Figure 6-5 Timeline of Property Ownership Evolution

Source: Author's own drawing

④ 2013 Onward: Spontaneous Occupation and Property Rights Conflict

Beginning in 2013, following the termination of North African refugee policies, approximately 1,000 refugees and undocumented migrants spontaneously occupied multiple buildings in Zone Lotto III without any formal authorization procedures. This "spontaneous occupation (occupazione)" behavior resulted in separation between property owners and actual users, creating high uncertainty at legal and governance levels. Although portions of buildings nominally remained under municipal or foundation ownership, actual control had been transferred to occupants and related support networks.

This phase marked the informalization and fragmentation of the property rights system, with public institutions gradually losing coordination capacity in ownership management, making it difficult to effectively advance reuse plan implementation. The occupation behavior persisted until the 2020 clearance, becoming a concentrated manifestation of multi-headed property rights, ambiguous responsibilities, and social conflicts in urban heritage governance [52].

(2) Current Status of Property Ownership

The current property ownership status of the residential area is relatively complex. Based on the historical timeline sorting and document research outlined above, the property ownership of Lotto III, Lotto IV, and Lotto V can be reconstructed:

① Lot 5 (Lotto V)

Within the multi-lot structure of the MOI residential area, the property ownership and functional evolution of Lot V (purple section in Figure 6-6) demonstrates relatively clear policy orientation and the introduction of social objectives. As early as 2005, under the initiative of the Municipality of Turin, a policy aimed at utilizing Olympic heritage for social purposes—the "Olympic Village Housing Plan (Villaggio Olimpico Housing Plan)"—was officially launched. This project explicitly entrusted the management and reuse rights of Lot V to A.T.C. (Agenzia Territoriale per la Casa), the local housing agency, with the specific responsibility of accommodating economically disadvantaged populations and meeting social housing needs.

However, the municipal government had already recognized as early as 2004 that, given the Olympic buildings were not originally designed for long-term residential functions, high-density concentrated habitation might exacerbate marginalization effects, triggering the so-called "ghetto effect (effetto ghetto)." To address this, on November 15, 2005, the Municipality of Turin signed a formal "Memorandum of Understanding (protocollo d'intesa)"

with three major labor union organizations—Sunia, Sicet, and Uniat—jointly proposing the goal of advancing "social mixing (mixité sociale)" within Lot V.

To date, the formal property ownership of Lot V remains with the Comune di Torino (Municipality of Turin), but its daily management, housing allocation, and maintenance responsibilities have been fully assumed by A.T.C., forming a "municipal ownership + local agency management" model. This block has become one of the earliest areas within the MOI residential zone to achieve social reuse, and also serves as an important case study in urban heritage projects exploring the pathway of "social function transformation."

② Lot 4 (Lotto IV)

In the reuse process of various lots within the MOI residential area, Lot IV (green section in Figure 6-6) represents one of the earliest areas to complete formal ownership allocation and achieve functional transformation. As early as 2004, before the Olympic Games were even held, A.R.P.A. (Agenzia Regionale per la Protezione Ambientale, Regional Environmental Protection Agency) proposed to the Municipality of Turin its intention to relocate, aiming to consolidate its offices scattered across the city into a single building to enhance administrative efficiency and institutional coordination.

The municipal government accepted this proposal and signed an agreement with A.R.P.A., transferring the surface rights of Lot IV to the agency for a period of 90 years (diritto di superficie 90 anni). In return, A.R.P.A. not only bore part of the renovation costs for the buildings within this lot but also jointly participated in the expenditure for the functional repurposing of Olympic heritage. This agreement marked the first formal transfer from municipal property rights to institutional surface usage rights within the MOI residential area, while simultaneously compelling the municipal government to adjust the original post-Olympic usage designation at the urban planning level, changing the area's function from residential to administrative office use.

Following its relocation, A.R.P.A. undertook extensive renovations of the nine buildings within the lot, introducing modern facility configurations, and enclosed the entire area with fencing to establish independent usage and management boundaries. While this high degree of physical demarcation ensured the security and efficiency of institutional operations, it further exacerbated the spatial fragmentation between the overall structure of the Olympic Village and the urban context. As urban planning scholar Bianchetti (2006) critically noted, such interventions represent a typical "non-holistic reuse" model. She pointed out that these intervention processes lack unified standards, operating more according to the logic of

"first-come, first-served" among various public institutions, thereby generating a "nomadic dynamic" in which spaces are "occupied" by different institutions according to need rather than "coordinated" according to plan, deviating from the original Olympic Village's redevelopment vision of "unified, mixed, and multi-functional" integration.

Although selling or transferring portions of Olympic assets to alleviate Olympic expenditure pressure may be reasonable from a municipal fiscal perspective, the case of Lot IV highlights a deeper issue—namely, the lack of holistic strategic guidance in urban governance during the reuse process of Olympic heritage, with ownership allocation dominated by administrative convenience and institutional needs rather than based on regional structural coordination and urban integration perspectives[52].

Currently, the formal property ownership of Lot IV remains held by the municipal government, while A.R.P.A. possesses long-term surface usage rights and exercises exclusive management authority over all buildings within the lot. This "static land rights, dominant usage" model, while enhancing reuse efficiency, has also intensified the functional separation and governance fragmentation of the MOI residential area as a whole.

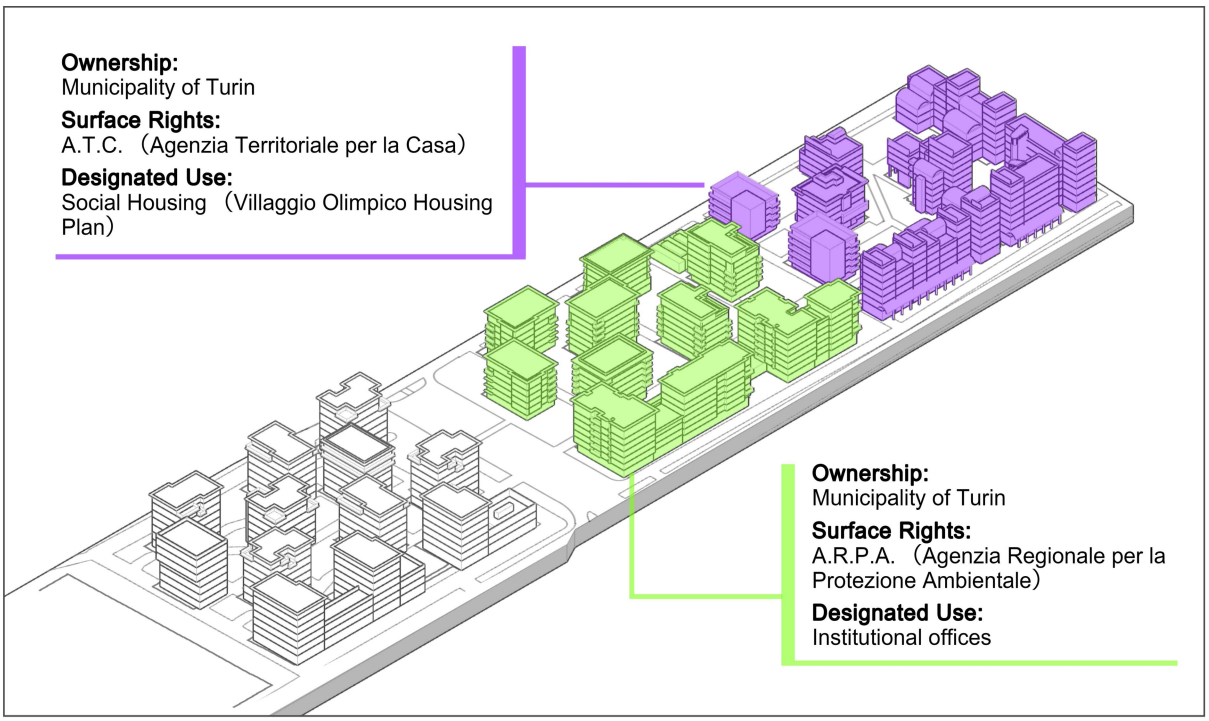


Figure 6-6 Current Property Ownership Status of Plot 4 and Plot 5

Source: Author's own drawing

③ Lot 3 (Lotto III)

Lot III within the MOI residential area represents one of the regions with the most complex and thoroughly fragmented property ownership. Its 12 buildings were allocated to

multiple institutions or incorporated into different policy pathways following the conclusion of the Olympic Games, resulting in a coexistence of diverse property ownership entities, composite functional uses, and fragmented governance.

Firstly, after TOROC (Comitato per l'Organizzazione dei XX Giochi Olimpici Invernali Torino 2006) returned the usage rights of two buildings (pink section in Figure 6-7) that had been utilized during the Olympic period, the Municipality of Turin, in response to fiscal deficits caused by Olympic expenditures, transferred the property ownership of these buildings to the Municipal Treasury Technical Office after 2006. Subsequently, in 2007, they were received by C.O.N.I. (Italian National Olympic Committee) for centralized office functions and sports administrative management purposes. This transfer was completed through a one-time "real estate transfer agreement (cessione immobiliare)" valued at approximately 5.68 million euros. The relevant buildings were subsequently renovated into national-level sports training centers, athlete dormitories, or offices for subsequent sports management institutions.

Secondly, in the same year, the municipal government agreed to lend Building No. 6 in Zone C1 of Lot III (red section in Figure 6-7) to the Youth Hostel Association (Associazione Alberghi per la Gioventù) under a temporary loan agreement (comodato). This organization undertook the building renovation project with a total investment exceeding 400,000 euros, creating space capable of accommodating approximately 99 young travelers. Although operational rights were transferred to the hostel organization, property ownership remained with the Municipality of Turin, with these buildings—alongside other unsold structures retained by the municipal government—classified within the public asset system.

Simultaneously, to address Olympic debt and promote asset financialization, in 2007 the municipal government packaged multiple unused buildings within Lot III (yellow section in Figure 6-7) into the "Fondo Città di Torino" (Turin City Real Estate Fund), which were subsequently sold to a real estate investment fund financed by Intesa San Paolo Bank and managed by Pirelli SGR. The buildings within this orange-block area were completely detached from the public system at the property ownership level, transformed into capital-operated assets (urban investment-oriented real estate sector)[54]. However, due to construction quality issues and poor structural adaptability, actual occupancy rates remained extremely low after the sale, with some buildings remaining vacant for extended periods, reflecting the limitations of the commercial conversion pathway for Olympic heritage[52].

Furthermore, three buildings within Lot III (blue section in Figure 6-7) were allocated to

Fondazione 20 Marzo 2006 (20 March Foundation) as non-commercial reuse assets of Olympic heritage. This foundation, with core functions centered on public culture, social inclusion, and sports activities, assumes responsibilities for spatial management and event planning. The buildings within this blue-block area are utilized for social housing, refugee assistance, and social inclusion activities, emphasizing the avoidance of purely market-oriented operational logic.

In summary, among the 12 residential buildings in Lot III: two buildings' property ownership belongs to C.O.N.I. (pink), serving sports institutional offices; one building is used as a youth hostel (red), with usage rights temporarily lent by the municipal government while property ownership remains with the government; multiple buildings' property ownership was sold to financial funds (yellow), constituting capital operations; and several buildings' property ownership is held by the foundation and executed with social functions (blue).

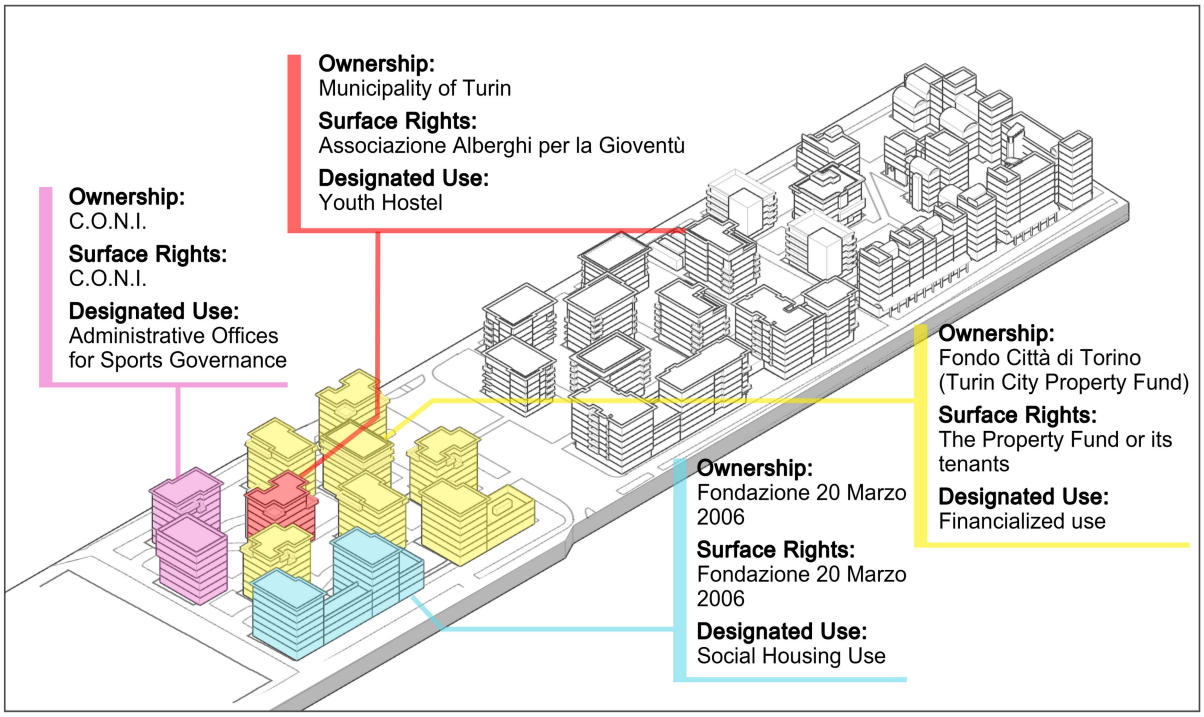


Figure 6-7 Current Property Ownership Status of Plot 3

Source: Author’s own drawing

6.1.6 Analysis of Turin's Industrial Development

Turin, as Italy's third-largest city and the capital of the Piedmont region, has undergone a profound transformation of its urban identity—from the "Automotive Capital of Italy" to a UNESCO-certified "City of Design." This transition was not accidental; rather, it resulted from systematic and forward-looking official policies guided by the Turin municipal government within the national strategic framework, ultimately earning recognition from

internationally authoritative institutions.

(1) Economic Crisis Driving Industrial Transformation

In the early 1990s, the Italian economic crisis severely impacted Turin, whose economy was anchored in automobile manufacturing. By 1993, industrial activity had contracted to its peak, leaving behind over 5 million square meters of industrial wasteland. Faced with this severe challenge, the Turin municipal government proactively sought change and promulgated the Turin Master Plan in 1995—marking the first official document to explicitly propose the core objective of "transforming the economic structure." This plan integrated service industry development with the reuse of industrial wasteland, signaling a shift in urban renewal from reactive response to proactive planning. This official document laid the legal and policy foundation for all subsequent transformation initiatives.

(2) Leveraging Industrial Heritage and Upgrading the Design Industry

The Turin municipal government deeply recognized that its profound industrial design heritage constituted the core asset for transformation. Under systematic official planning, large-scale industrial heritage renovation projects were implemented. For instance, the Lingotto Factory—formerly Fiat's main production facility—was successfully transformed, with government support, into a comprehensive service complex integrating offices, hotels, theaters, and shopping centers. Similarly, the Dora Park project, designed by renowned German landscape architect Peter Latz, was officially led to convert riverside industrial sites into a green, environmentally friendly, and fashion-forward modern urban park. These projects represented not merely physical space renewal but concrete official practices of embedding the "design" concept into the urban fabric.

Simultaneously, the municipal government actively supported the design upgrade of the automotive industry. Leveraging the talent advantages of world-renowned independent design studios such as Pininfarina and Bertone, as well as design masters like Giugiaro, the city launched the "From Concept to Car" project through the Chamber of Commerce in 2005, aiming to export its design knowledge and technology globally. This initiative reinforced Turin's position as a global automotive design hub, accumulating a solid industrial foundation for the "City of Design" designation.

(3) UNESCO's "City of Design" Designation

Turin's decades-long official efforts ultimately received the highest level of international recognition. In 2014, UNESCO officially conferred upon Turin the title of "Creative City of Design," incorporating it into the UNESCO Creative Cities Network (UCCN)[55]. This official

certification fully affirmed Turin's approach of positioning design as the core driving force for urban development. Since then, Turin's transformation has entered a new phase. According to UNESCO official website data, Turin's creative and cultural sectors account for 9.1% of Italy's total active institutions, ranking third nationally, with approximately 100,000 employees. Following the designation, the Turin municipal government placed greater emphasis on applying design to cultural heritage preservation—for example, the 2018 "Turin, Towards a Foreseeable City" initiative integrated over 150 institutions and launched 160 creative activities, demonstrating the government's sustained commitment to leveraging design for urban development.

(4) Vigorous Development of Tourism

Concurrently with obtaining the "City of Design" title, the Turin municipal government had already systematically planned for tourism development. As early as 1998, the municipal government prospectively formulated the Turin International Promotion Strategic Plan, first proposing to position the city as a hub for "culture, tourism, commerce, and sports"[55]. Entering the 21st century, this strategy was further deepened. In 2003, the Turin Tourism Board (an official institution) comprehensively formulated an integrated tourism project, explicitly prioritizing business convention tourism and urban festival leisure tourism as development focuses. Through a public-private cooperation platform, the initiative consolidated and promoted the city's more than 40 museums, Baroque architectural heritage, and distinctive culinary resources.

The outcomes of official systematic planning have been remarkable. In 2006, Turin successfully hosted the Winter Olympics and was designated by UNESCO as the "World Book Capital" in the same year, further elevating its international profile. Official data indicate that since 2009, the scale of Turin's tourism industry has continuously expanded, reaching 7.24 million visitors by 2018. Today, tourism has become one of Turin's dominant economic sectors—a fruitful outcome of the municipal government's decades-long adherence to an official-led, top-down designed, and phased urban transformation strategy.

In summary, Turin's successful transformation follows a clear pathway: officially led by the Turin municipal government, centered on design, utilizing policy as a tool, and ultimately earning authoritative certification from UNESCO. From the 1995 Master Plan to the 2014 "City of Design" coronation, and onward to systematic tourism industry planning, each step has demonstrated strong official will and execution capability, enabling the city to transform elegantly from a traditional industrial center into a globally recognized creative and tourism

hub.

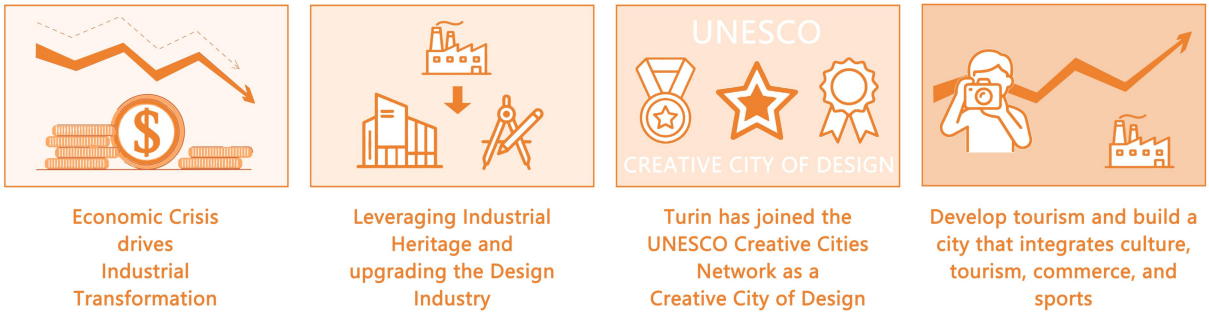


Figure 6-8 Turin Industrial Development

Source: Author's own drawing

6.2 Research on Current Status of Site Architecture

Nearly two decades after the conclusion of the Olympic Games, the spatial functions and physical conditions of the Olympic Village and its surrounding buildings have undergone significant transformations. To more accurately understand the current urban role and potential development directions of this area, this chapter will analyze its current reality from aspects such as the surrounding environment, functional usage, building quality, and structural conditions. The current state of the buildings not only reflects the effectiveness of Olympic heritage reuse policies but also provides a foundational basis for future urban renewal and functional reconstruction. A systematic analysis of the current situation helps reveal the challenges and opportunities facing this area, thereby providing realistic support for subsequent planning and design interventions.

6.2.1 Analysis of the Current Status of Surrounding Buildings

The MOI building complex is located at Via Giordano Bruno 191 in southern Turin. Its locational advantages are significant—not only is it closely connected to the city's main road network, but it is also embedded among multiple historical landmarks and large-scale functional facilities, forming a multi-dimensional spatial linkage structure. The area currently exhibits typical characteristics of a "mixed building cluster," encompassing various types of buildings and urban functional zones including commercial, transportation, exhibition, research, and public service facilities[4].

The most prominent landmark building is the Lingotto and Lingotto Fiere (Exhibition Center) to the east. This building complex, originally an industrial Fiat factory, has now been transformed into a multi-functional commercial complex integrating offices, conferences, and

retail, forming a functionally complementary urban vitality axis with the MOI area. Extending northward along the main street Via Nizza is the Oval Lingotto (Olympic Oval), an ice skating rink constructed for the 2006 Winter Olympics that is currently frequently used for exhibitions, events, and temporary performance spaces. This creates a close connection between the MOI building complex and the Oval Lingotto, promoting the efficient conduct of cultural activities across different areas.

Furthermore, to the south of the MOI building complex lies the adjacent PSRI Health, Research, and Innovation Park (Parco della Salute, della Ricerca e dell'Innovazione), which is under imminent construction. According to its feasibility study plan (Studio di fattibilità PSRI) (Figure 6-8), the park is overall divided into four zones: Zone 1 is the PSRI Health, Research, and Innovation Park itself, with the northern plot designated as the "Medical and Clinical Training Center and Research Center," and the southern plot as the "Teaching and Residential Center." Zone 2 is the "Piedmont Regional Government Headquarters and General Public Affairs Area." Zone 3 is the "Functional Area Complementary to the Health Park" (FS Urban Systems Company Area). Zone 4 is the "Exhibition Area" (Oval Exhibition Hall Area). This planning heralds that the MOI surroundings will transform into a regional development hub integrating education, healthcare, and research, significantly enhancing the spatial vitality of this district.

To the southeast of MOI, the new headquarters of the Piedmont Regional Government (Grattacielo Regione Piemonte) has been completed and put into use, symbolizing the area's gradual evolution into a comprehensive core zone integrating urban governance, technological research and development, and cultural exhibitions[5].

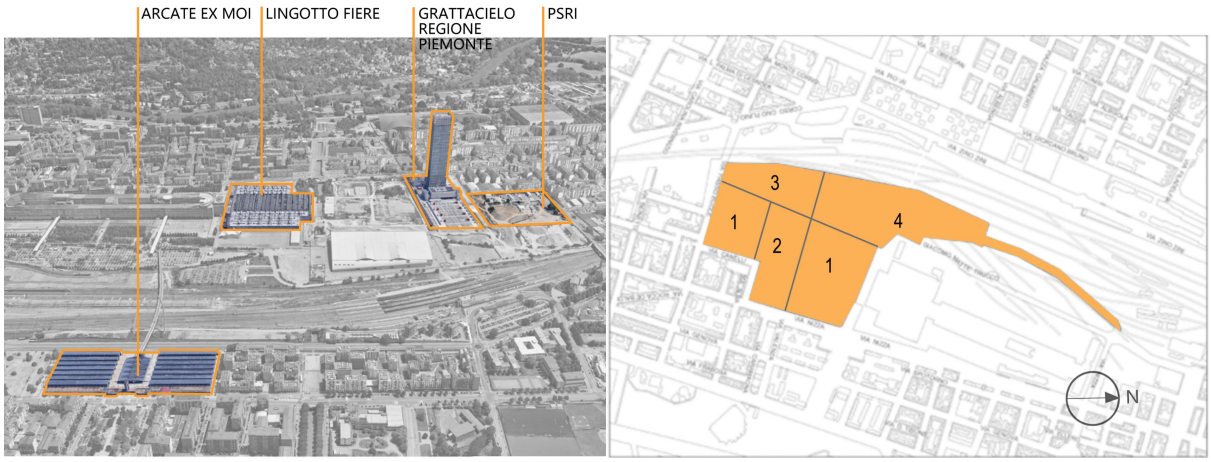


Figure 6-9 Schematic Diagram of Surrounding Buildings and PSRI Plot Division

Source: Author's own drawing

From the perspective of the overall spatial pattern, the MOI building complex is

surrounded by these high-intensity urban functions. The current status of surrounding buildings is no longer limited to single-purpose usage but has gradually formed an urban model characterized by composite functions. This environmental characteristic provides relatively mature external conditions for the functional transformation and industrial introduction of the MOI building complex, while also imposing higher collaborative requirements on its current governance.

6.2.2 Development Potential Analysis

As outlined in the preceding sections, the MOI building complex as a whole remains in a state where functional vacancy coexists with transitional utilization. Although certain sub-blocks have been allocated to institutions such as the Polytechnic University of Turin and the University of Turin as reserved spaces for future research and academic purposes, the majority of architectural spaces remain enclosed by fencing and lack actual activation. Localized areas exhibit structural degradation due to prolonged disrepair. In contrast, the supporting residential zone has undergone a trajectory from post-Olympic vacancy and long-term occupation by refugees to gradual clearance and redevelopment in recent years. Currently, this area is transitioning into a residential functional district centered on student apartments and social housing, attracting participation from multiple institutions in operational renovation efforts.

(1) Visions for Future Functions from Various Stakeholders

Regarding future functional visions for the Ex MOI building complex, relevant entities have progressively shifted from architectural-level restoration to systematic exploration of usage purposes. This process not only involves urban planning and architectural renewal issues but is more profoundly embedded within social participation, political intentions, and urban development strategies, constituting a critical dimension of urban governance complexity.

First, at the political level, Turin Mayor Stefano Lo Russo has publicly stated: "Arcate Ex MOI can become the future place for medical research." This declaration signifies the municipal government's explicit inclination to incorporate this building complex into the overarching development strategy of PSRI (Health, Research, and Innovation Park). Concurrently, the renovation objectives for this area are no longer confined to single-purpose usage but are engaging in multi-dimensional dialogue spanning health, education, research, and community services.

Leaders from the University of Turin, Polytechnic University of Turin, and related

medical institutions have also proposed diverse functional visions for the Ex MOI building complex on various occasions. For instance: Professor Umberto Ricardi from the Medical School emphasized that attention should be paid to the excessive physical distance between MOI and the main PSRI campus, which may cause inconvenience to patients, rendering direct connection inadvisable; Professor Antonio Scarmazzino, Medical Director, proposed that auxiliary spaces oriented toward PSRI could be established within MOI, such as conference centers, administrative offices, and young doctors' dormitories; University of Turin President Stefano Geuna expressed that MOI holds potential to become a new space for medical research and physician collaboration[56]; Polytechnic University of Turin President Guido Saracco emphasized that MOI can serve as an ideal carrier for classrooms, entrepreneurial spaces, co-working areas, and student association activity venues.

Currently, the restoration project of MOI is being implemented in phases by the SCR Group. The first phase focuses on "structural stripping" to restore the original open layout of the buildings; the second phase will establish functional modules according to specific project requirements. Although the project has not been fully completed, it intentionally provides spatial foundations for the flexible intervention of various future uses.

(2) Government Planning Documents

Furthermore, according to the updated document of the Turin Master Plan (PRG) from June 2023 (Figure 6-9), the total constructible area of the Ex MOI comprehensive zone (No. 12.24) is 68,150 square meters, which can be allocated according to regulations as up to 35% for residential purposes, 25% for commercial and service activities, and 40% for public interest and office spaces[57]. This provides legal basis and spatial capacity support for the composite introduction of future functions including student dormitories, community healthcare, innovation incubation, and cultural exhibitions.

Therefore, the new functional possibilities for the MOI building complex should be established upon three pillars: macro-level urban strategic guidance, negotiation mechanisms among multiple stakeholders, and feedback from actual community needs. Under this premise, its future may not only accommodate medical education and research functions but could also develop into a new paradigm of social integration and functional balance.

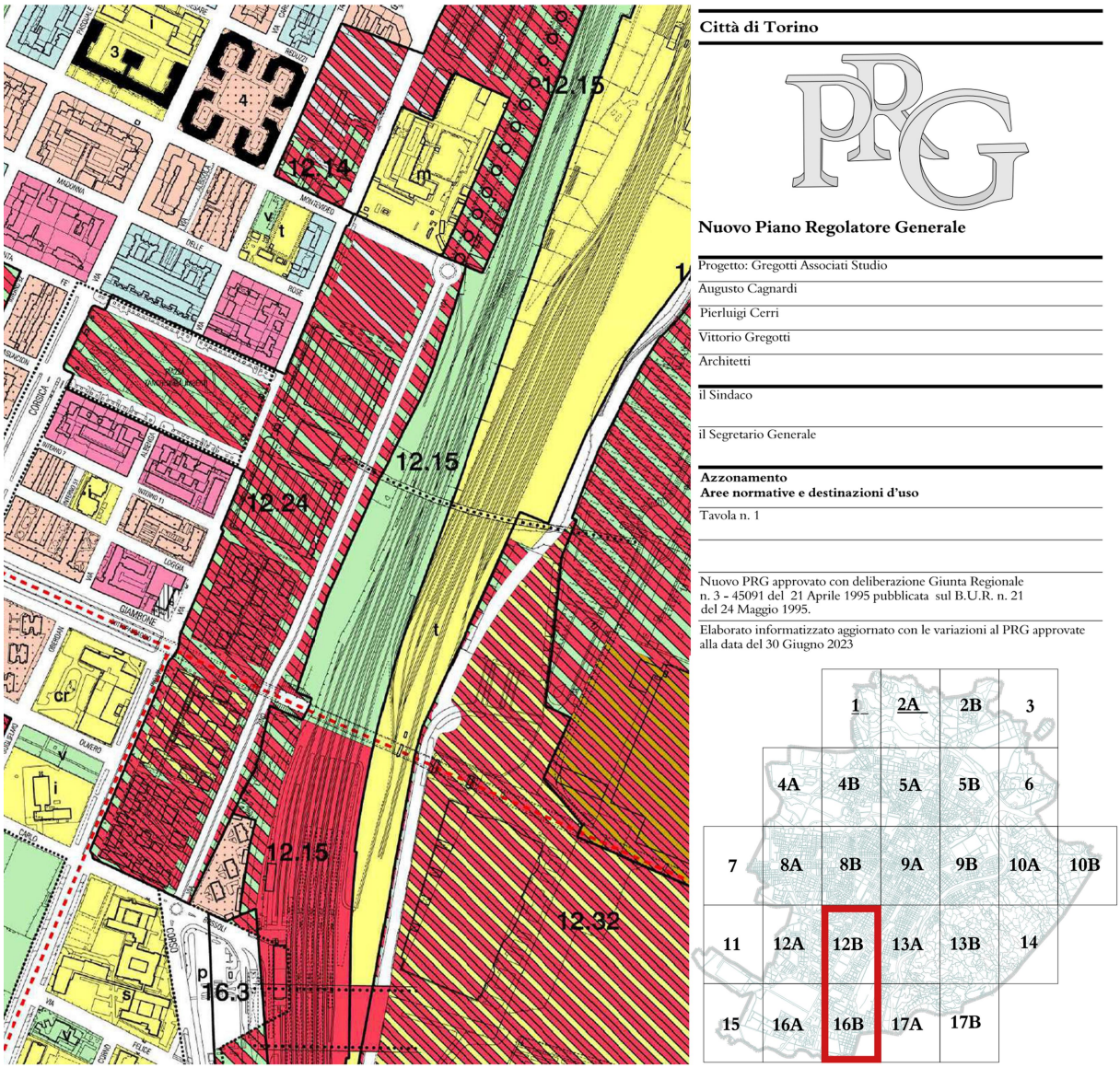


Figure 6-10(a) Turin City Master Plan (PRG)

Source: See Chart Source Table

Additionally, the latest planning scheme for Lotto I explicitly positions it as a residential area and shelter (Figure 6-10). According to the municipal government's published lot usage allocation plan (Destinazioni d'uso dei lotti), the functional configuration of each sub-lot is as follows: Lot 1 is based on public interest development projects (ASPI), integrating social housing with urban renewal content led by Turin's municipal urban renewal company (Eurotorino). Lot 2 adopts a mixed model similar to Lot 1, namely residential development under the ASPI framework, with implementation participation by Eurotorino. Lot 3 is exclusively dedicated to ASPI public interest facilities, without including residential or market-oriented development content.

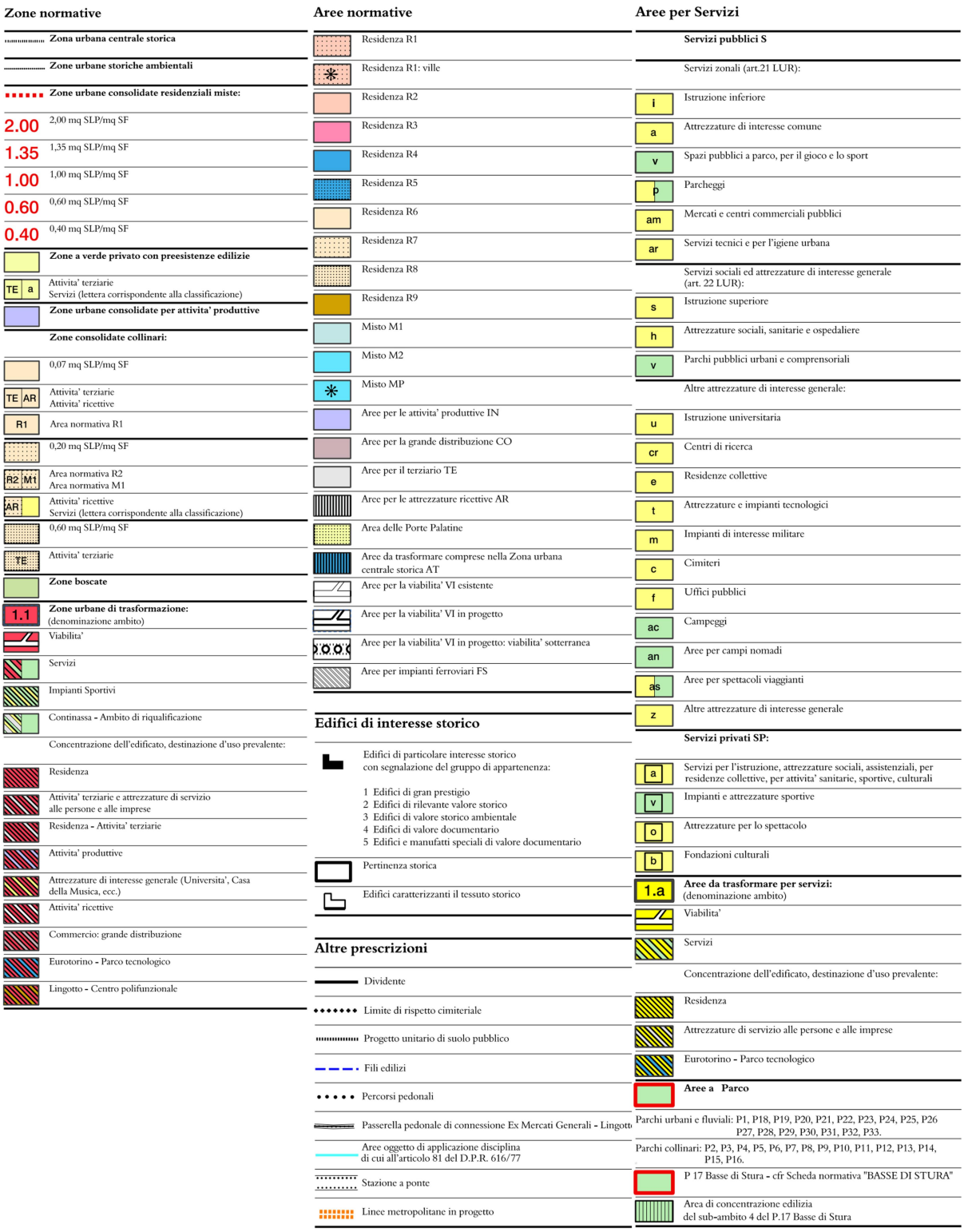


Figure 6-10(b) Turin City Master Plan (PRG)

Source: See Chart Source Table

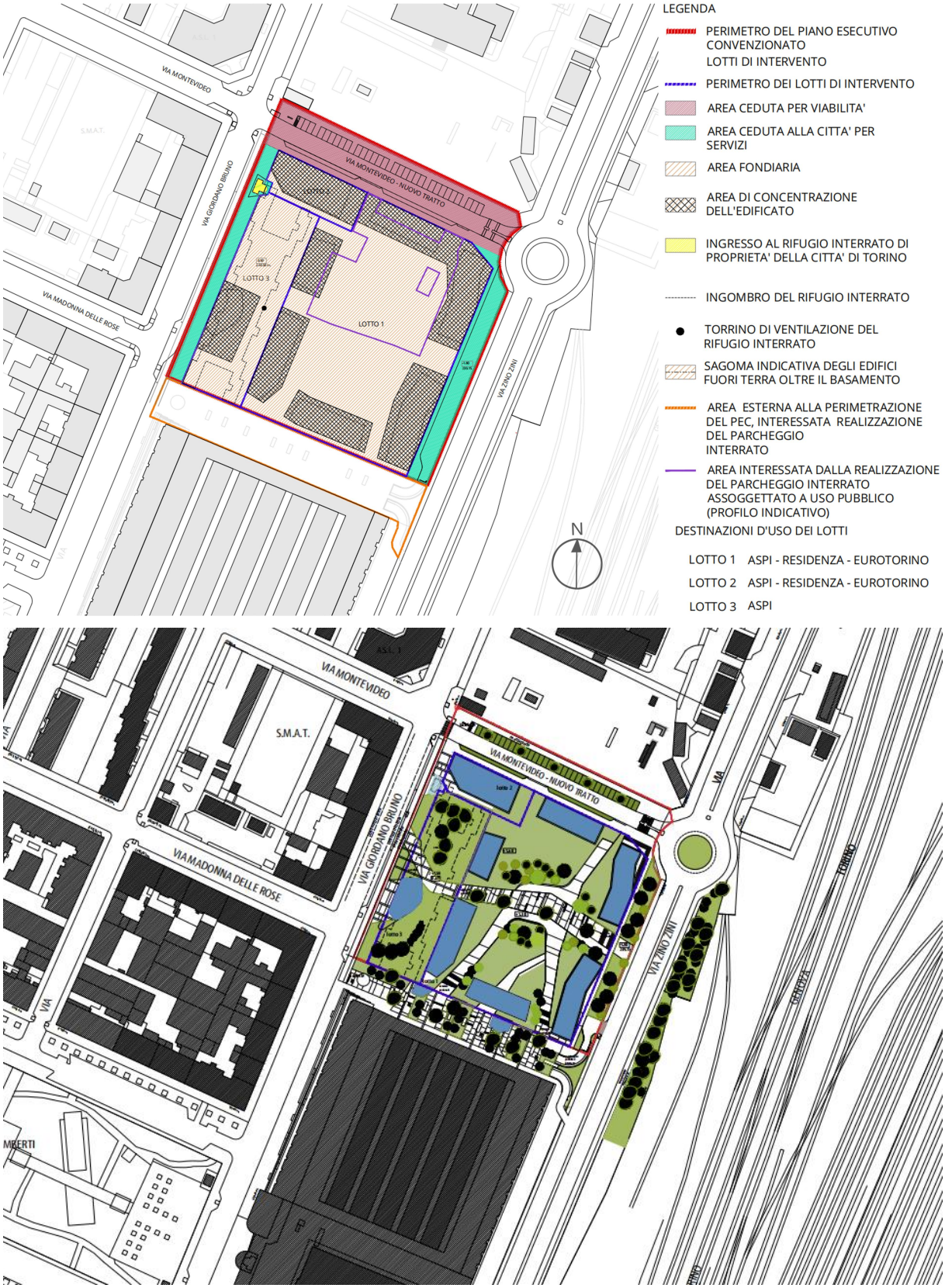


Figure 6-11 Latest Planning for Lotto I

Source: See Chart Source Table

6.2.3 Architectural Design and Spatial Structure Analysis

This subsection systematically presents the spatial form and physical characteristics of the research object—the Turin Olympic Village—through the measured and compiled existing technical drawings. The attached drawings include the overall site plan of the Olympic Village, the ground-floor plan of Ex MOI, major elevations, and key sections. They are intended to objectively document its current spatial layout, dimensional relationships, structural system, envelope construction, and modes of connection with the surrounding environment.

(1) Analysis of the Overall Plan of the Olympic Village

The overall plan of the Turin Olympic Village (Figure 6-11) clearly presents its original spatial concept. As shown in the drawing, the design of the Ex MOI area strongly emphasizes a symmetrical layout along the central axis. This axis begins at Piazza Galimberti, extends southward through the core area of the Olympic Village, and terminates at the iconic Arco Olimpico. This pronounced axial order not only endows the site with a sense of ceremony and visual orientation, but also reflects the design team’s strong emphasis on the integration and reuse of historical and cultural heritage. By organically integrating the existing urban fabric with the newly built Olympic facilities, the design reinforced the historical continuity and cultural identity of the place.

In terms of spatial layout, the overall form presents an uneven structure characterized by “dense in the west and sparse in the east.” The western side has a higher building density, with compact volumes and relatively enclosed frontages, whereas the eastern side is more loosely arranged, with greater building setbacks and more open, transparent frontages. This differentiated treatment reflects clear functional and environmental intentions. The western side is adjacent to a major urban pedestrian street, and its higher density and enclosure help shield external noise and pedestrian disturbance, thus creating a quiet and private residential atmosphere within the neighborhood. By contrast, the eastern side is next to the railway tracks. Although it is exposed to traffic noise, the relatively low intensity of surrounding development and the open views allowed the design to introduce distant views and enhance spatial openness through a more open frontage, thereby alleviating the sense of oppression that high-density housing may produce and improving residential comfort.

It is worth noting that a comparison between the original plan and the current built condition reveals several significant deviations. The most prominent case is Lotto VII. It was originally planned as a small public green space intended to serve as a shared resting node for the community, but in reality it is currently used as a temporary parking lot. This not only

results in the loss of its intended ecological and social functions, but also reflects the problems of functional mismatch and resource idleness in post-event spatial management. In addition, the landscape system within the residential area has also been greatly simplified. The originally designed multilayered greenery, pedestrian paths, and courtyard spaces were compressed or eliminated during implementation, resulting in an actual environmental quality lower than that anticipated in the plan. These discrepancies reveal the practical challenges of implementation deviation and insufficient follow-up maintenance in the realization of large-event heritage planning, and also provide an important basis for reflection for the formulation of subsequent spatial regeneration strategies.

(2) Ground-floor Plan Analysis of the Former Market Building

Based on field investigation and a systematic review of relevant literature, the author drew the current ground-floor plan of the Ex MOI building (Figure 6-12) and further reconstructed its functional layout during the Turin Winter Olympics (Figure 6-13), in order to reveal its spatial organization and usage logic.

At the level of plan design, the building fully respects and flexibly makes use of the original industrial structural system. This retention and reuse of the existing architectural framework not only reflects an awareness of industrial heritage conservation, but also skillfully continues its distinctive cultural attributes and rugged industrial aesthetic. The overall plan is regular and orderly, with clear primary and secondary axes and a rhythmic spatial sequence. Particularly noteworthy is that the residual spaces between the repetitive arcade units of the original building were efficiently transformed into functional nodes, such as public toilets, changing rooms, and an Athletes’ Commission voting point, thus achieving an organic integration of the historic structure and modern service functions.

In terms of functional organization, the spatial layout shows marked characteristics of centralization and modularization. Various public service facilities, including retail shops (1), the IOC Museum (2), the World Anti-Doping Agency office (WADA, 3), and public toilets (4), were all concentrated around the main entrance and the central circulation route, forming an efficient and convenient public service zone that enabled athletes and delegation members to access necessary services quickly. Meanwhile, specialized functional spaces such as reservable meeting rooms (5), the fitness center (6), and the media center (7) were mainly arranged in the northern part of the building. This arrangement not only ensured the independence and privacy of their operations, but also connected them effectively through internal corridors (8), thereby responding well to the complex operational demands of high-density crowd flow and multiple parallel activities during the Games.



Figure 6-12 Master Plan of the Turin Olympic Village

Source: See Chart Source Table

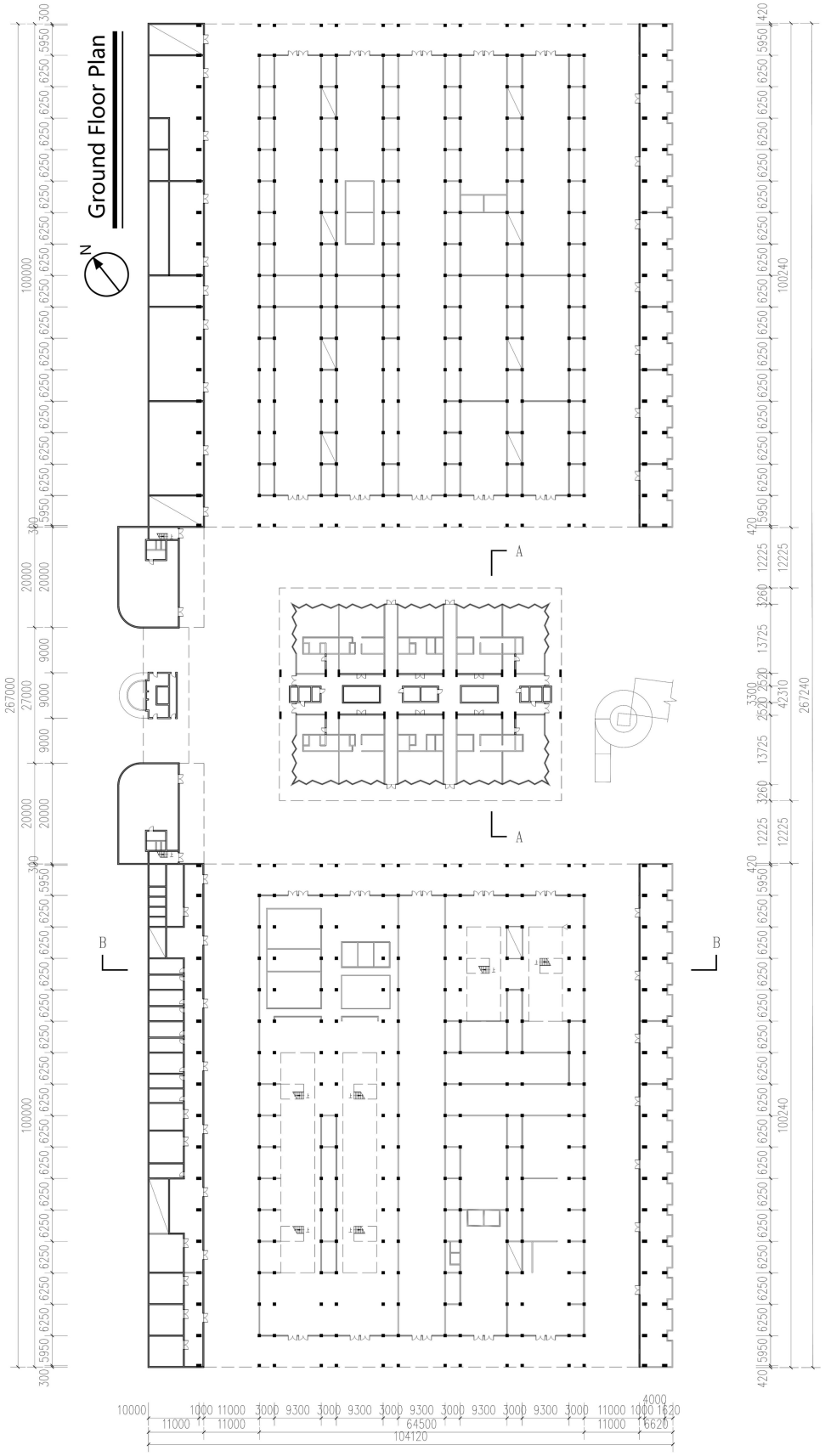


Figure6-13 Ground Floor Plan of Ex MOI

Source: Author's own drawing

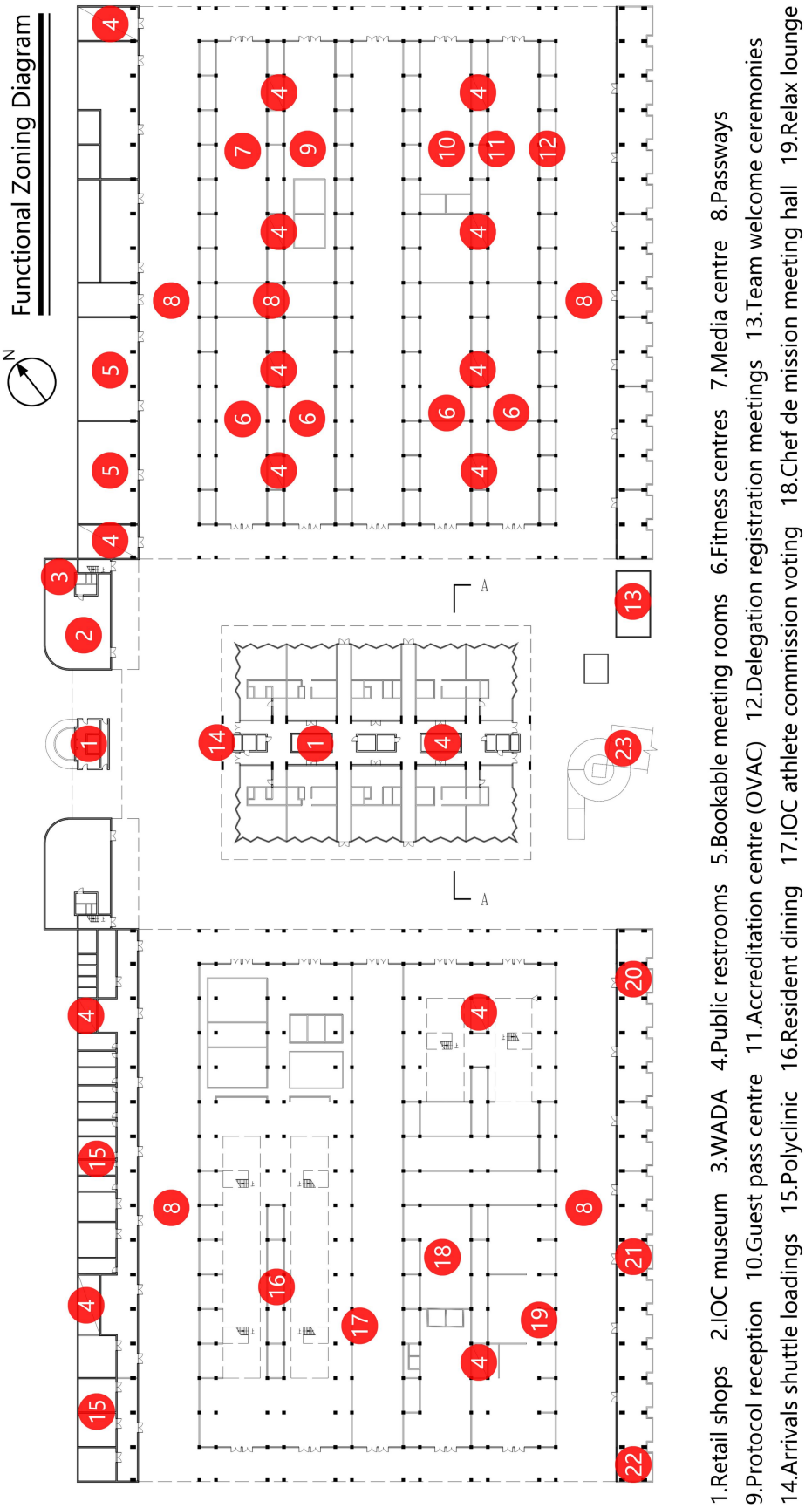


Figure 6-14 Functions During the Olympic Games

Source: Author's own drawing

In addition, living service facilities, such as the residential dining area (16), relaxation lounge (19), DVD lounge (20), and Internet access point (21), were evenly distributed along the main activity circulation, covering key stopping nodes and effectively meeting the athletes' basic needs for daily life, social interaction, and recreation during the Games. In terms of medical support, the Polyclinic (15) was located adjacent to the main entrance, ensuring the timeliness and accessibility of emergency medical response.

In summary, on the basis of respecting the historic structure, the ground-floor space of Ex MOI successfully supported the intensive and multidimensional use demands during the Winter Olympics through clear functional zoning and efficient circulation organization, demonstrating typical planning strategies and implementation wisdom for temporary large-event spaces.

(3) Elevation and Section Analysis of the Former Market Building

Based on the available materials, the author carried out a detailed modeling of the building complex and produced its elevations (Figures 6-14 and 6-15) and sections (Figures 6-16 and 6-17) to further analyze its spatial structure and design characteristics.

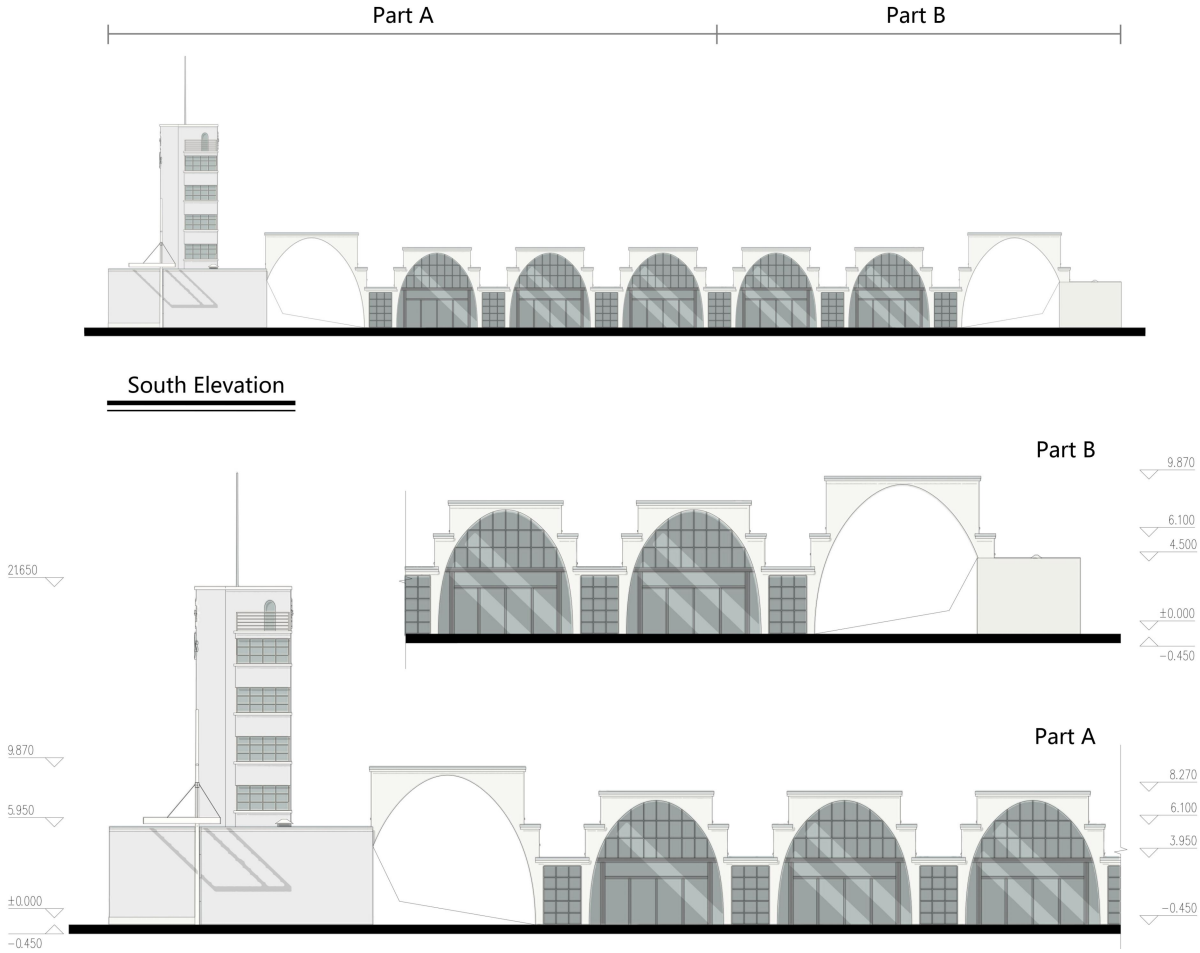


Figure 6-15 South Facade

Source: Author’s own drawing



Figure 6-16 West Facade

Source: Author’s own drawing

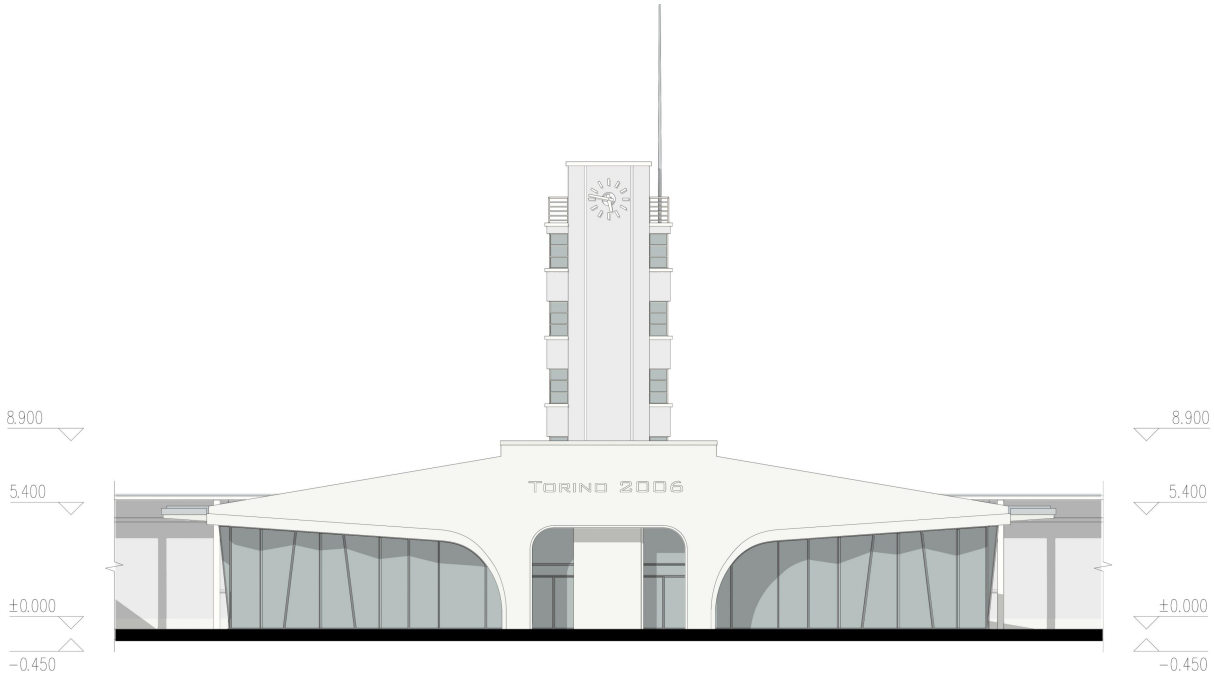


Figure 6-17 East Facade

Source: Author's own drawing

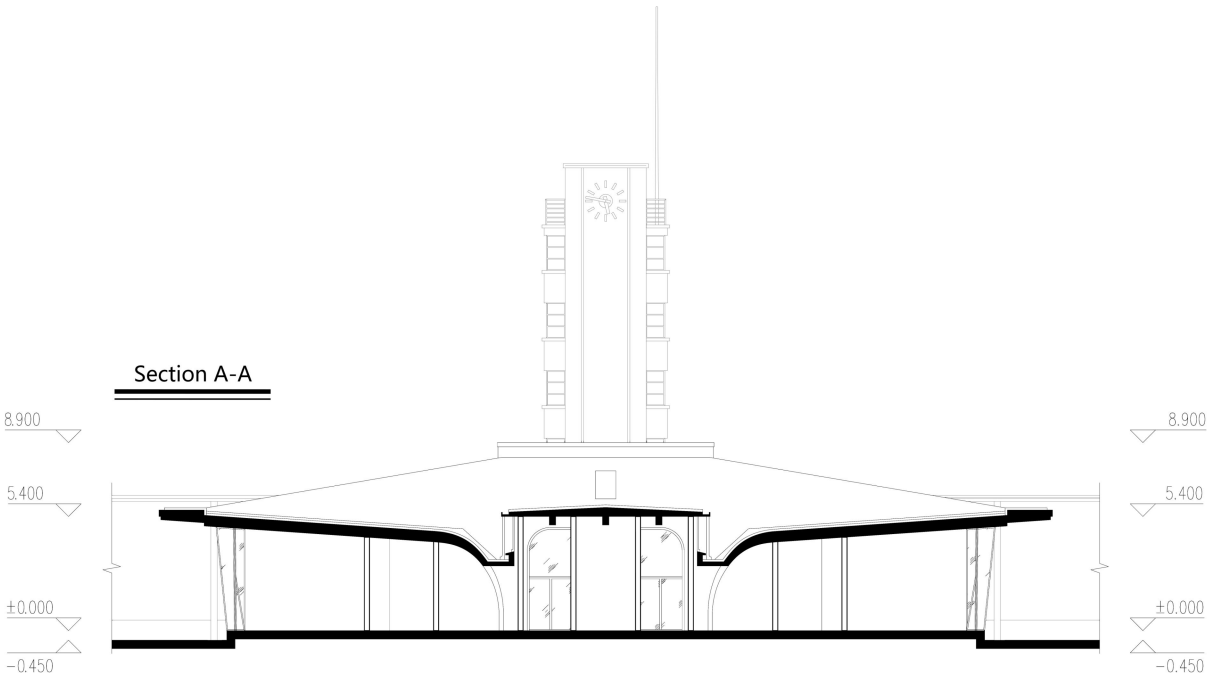


Figure 6-18 Section A-A

Source: Author's own drawing

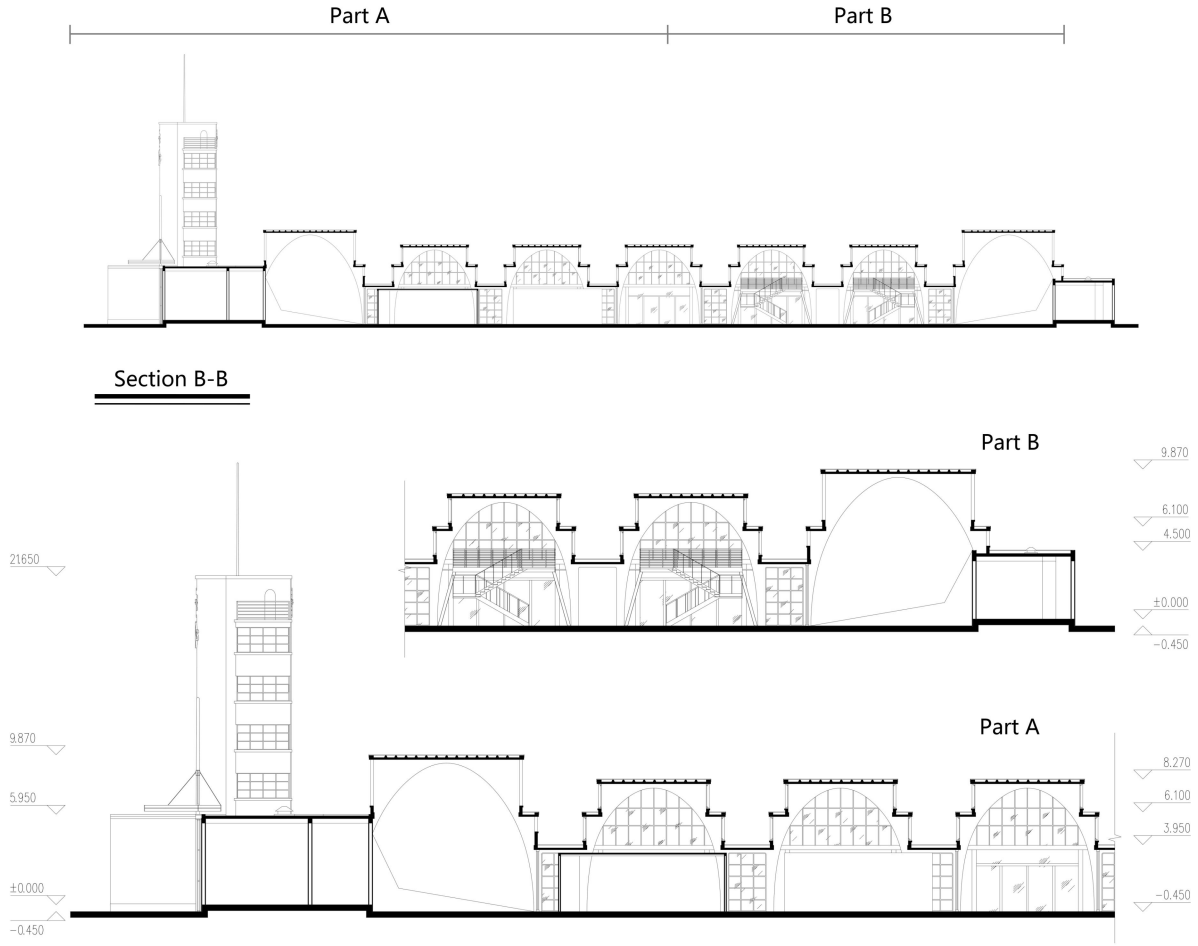


Figure 6-19 Section B-B

Source: Author's own drawing

From the elevation analysis, the complex displays a high degree of consistency in its repetitive elements. The continuous arrangement of arcade units creates a strong sense of rhythm and visual order. Within this repetition, however, variation is skillfully introduced: the arcades at both ends are slightly higher than those in the middle. This design not only breaks the visual monotony, but also clearly distinguishes the functional attributes of the lower spaces, namely the boundary between indoor space and semi-outdoor space. In addition, the tower, as the highest point of the whole complex, becomes a prominent landmark. It enriches the vertical hierarchy of the west elevation (the main elevation), reinforces the presence of the central axis, and enhances the overall dynamic quality of the facade.

The sections further reveal the detailed considerations embedded in the design. In particular, the simple staircases and second-floor platforms inserted within the arcades reflect an efficient strategy for utilizing limited space. This arrangement not only meets functional needs, but also preserves the quality of spatial experience, demonstrating the designer's ingenuity in handling complex spatial relationships.

(4) Analysis of the Facade Composition of the Existing Olympic Village Residential Area

Based on the available materials, the author produced elevation drawings of the residential area (Figure 6-18), mainly showing the residential façades of Lotto III and Lotto IV. Due to the lack of complete and specific data and technical drawings, the residential buildings in Lotto V were not included. While ensuring the accurate presentation of proportion and appearance, this drawing does not indicate specific dimensions in view of possible data deviations. It is intended to provide a visual reference framework for subsequent discussion and design planning. It should be noted that, although every effort was made to ensure accuracy, more detailed technical documents should be consulted for design decisions requiring precise data.。

Overall, the residential façades present a design logic of “order within variation”: with unified building massing, story height, and modular dimensions as the basic framework, visual activation and identity differentiation of otherwise homogeneous dwelling spaces are achieved through differentiated treatments of color zoning, window composition, balcony form, and material texture. This strategy not only meets the needs of efficiency and cost control in large-scale public housing construction, but also avoids the sense of spatial indifference caused by monotonous repetition.

In terms of color application, the façade system adopts a systematic color-coding mechanism, using different colors to identify different residential clusters or functional zones. This color strategy not only facilitates residents’ spatial orientation, but also psychologically reinforces their sense of community belonging. It is worth noting that color does not exist in isolation, but, together with window proportions and balcony positions, constitutes a “visual grammar.” For example, red walls are often paired with white window frames and black sunshades to form a strong contrast, whereas light-colored walls are often matched with dark details to create a calm atmosphere.

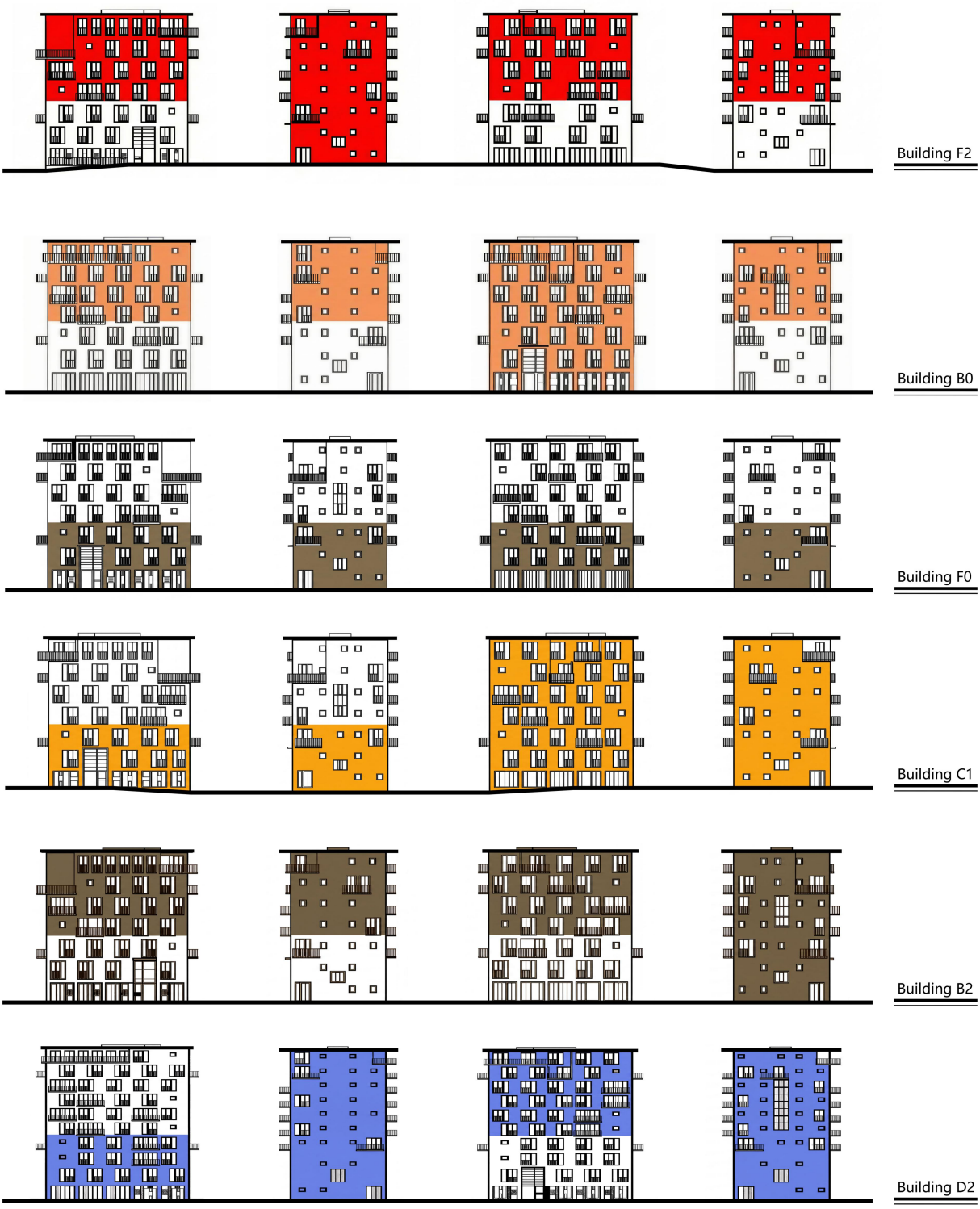


Figure 6-20(a) Residential Elevation

Source: Author’s own drawing

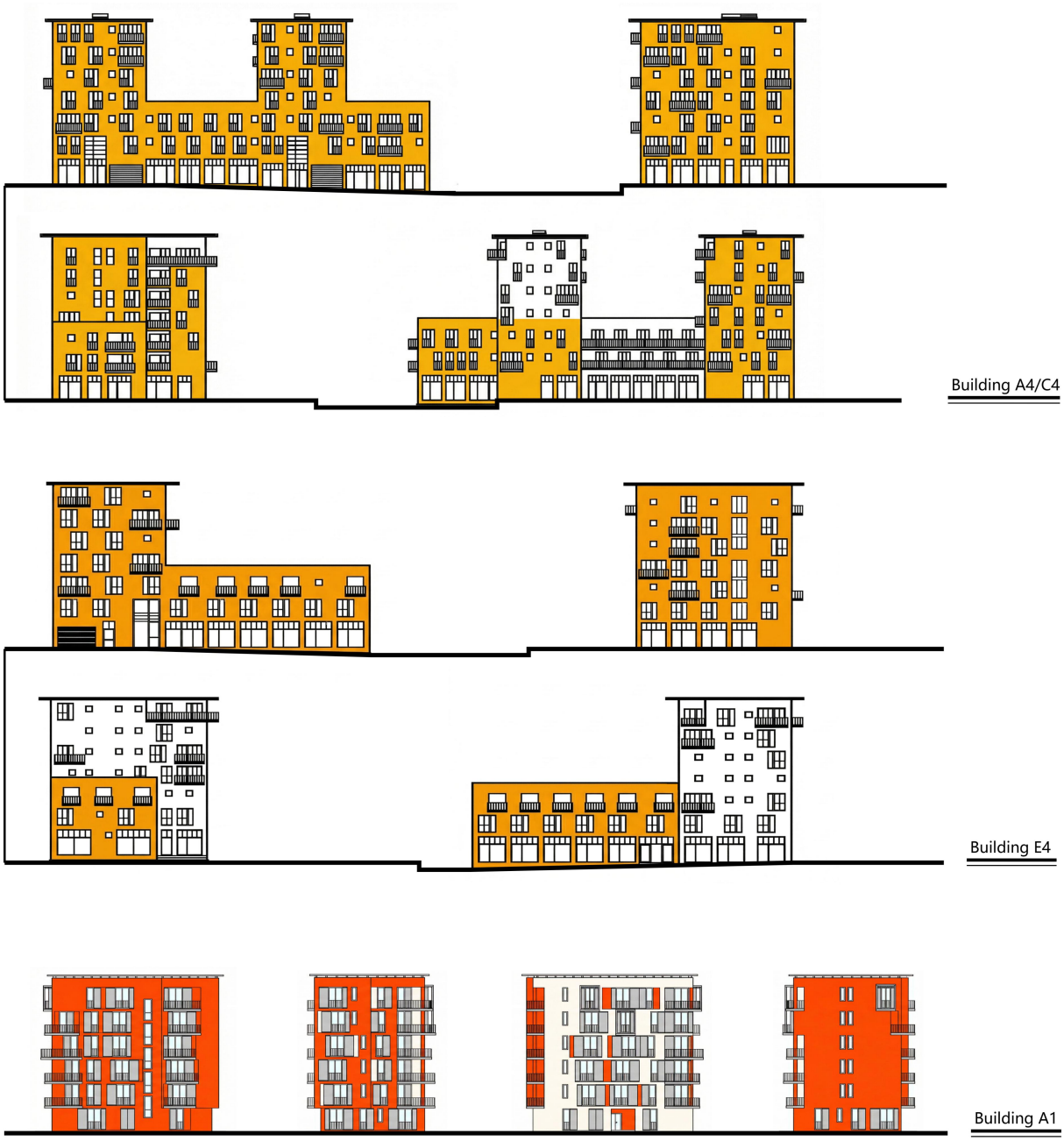


Figure 6-20(b) Residential Elevation

Source: Author's own drawing



Figure 6-20(c) Residential Elevation

Source: Author’s own drawing

6.2.4 Research on the Subsequent Development of the Turin Olympic Village

(1) Research on the Subsequent Development of the Former Market Buildings

Currently, the Olympic Village as a whole has deviated from its original urban vision, becoming a typical "untransformed heritage space." Parts of the Arcate Ex MOI building complex are temporarily occupied by the Italian National Olympic Committee (CONI), while the remaining spaces were briefly used by the Turin Chamber of Commerce for event reception after the 2006 Winter Olympics before falling into prolonged abandonment. The overall space exhibits typical characteristics of an "urban interstice," situated between usage and abandonment, order and disorder, legality and gray areas, reflecting highly representative issues of policy failure and spatial vacancy in Olympic heritage transformation.

In subsequent years, Arcate Ex MOI has remained a focal point of attention for local governments, media, and academia, with its future functional positioning sparking extensive discussion. Both previous and current municipal administrations have attached great importance to the renovation and reuse of this building complex, pledging to transform it into a genuine cultural and social center through temporary exhibitions and permanent cultural activities[5]. Multiple institutions and universities, such as the Polytechnic University of Turin and the University of Turin, have proposed schemes for utilizing the space for academic exhibitions, social activities, or public purposes. In 2015, the Turin municipal government reached a cooperation consensus with local universities to incorporate this district into the overall strategy of the "Health, Research, and Innovation Park" (PSRI), attempting to connect the building complex's arcades with the PSRI master plan, marking the entry of site reconstruction into a new phase of institutional and policy support. This concept has gained broad consensus among different political forces, with its core intention being to transform the aging site into an active node within the urban cultural and research network while preserving historical architectural value, through the introduction of knowledge and health-related functions. In 2016, a proposal emerged to transform the building into an exhibition space for "Paratissima." Starting in 2019, SCR Group, under the Piedmont Regional Government, officially launched restoration and redevelopment works for this area (Figure 1-1), aiming to transform it into a multi-functional open space.

To address the aforementioned challenges, SCR Group implemented a phased intervention strategy. Initial interventions focused on building units on both sides of the arcades, encompassing demolition of architectural structures and equipment, clearance of abandoned facilities, and basic safety maintenance measures for the site. The most representative preliminary phase project was named "Strip Out," aiming to restore the

buildings to a state close to their original design. This project not only removed damaged, useless, or non-recyclable building components but also, through structural clearance work, created an adaptive framework combining open and enclosed spaces, enabling the buildings to flexibly accommodate different future functions and usage requirements. According to relevant planning, maintenance and restoration measures will be implemented after the completion of the stripping project, focusing on protecting the building structure itself, eliminating damage risks, and creating material foundations for subsequent activation and redevelopment through structural reinforcement, material maintenance, and other means[5].

However, as of now, information regarding the progress of this project remains unclear. Satellite imagery and current conditions (Figure 6-19) confirm that the "Strip Out" project has been explicitly initiated since 2019, but the completion rate and progress information remain uncertain. Field investigation results indicate that the building complex still suffers from severe structural damage and physical degradation, seriously affecting the safety and feasibility of its reuse.

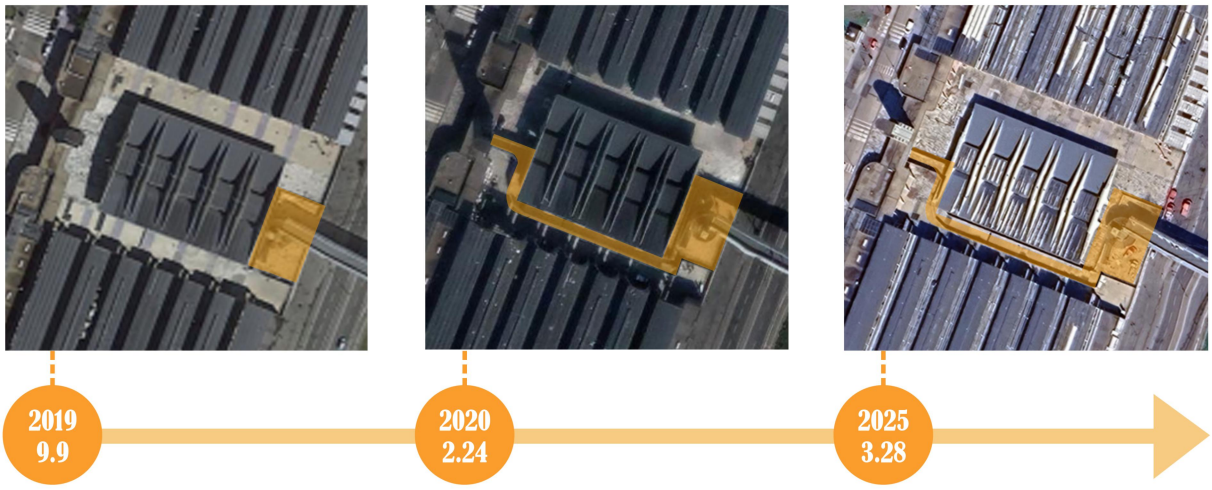


Figure 6-21 Progress of the "Strip Out" Project

Source: Author's own drawing

(2) Research on the Subsequent Development of the Supporting Residential Area

Following the conclusion of the Olympic Games, although the municipal government initially envisioned transforming the supporting residential area into a social housing project, in reality, due to fiscal deficits, architectural structural limitations, and unclear planning objectives, the area quickly fell into a usage vacuum. Between 2007 and 2012, certain buildings were successively allocated to local housing agencies (such as ATC), student accommodation management entities (such as EDISU), youth hostel associations (Associazione Alberghi per la Gioventù), and the March 20 Foundation (Fondazione 20

Marzo 2006), for purposes including social housing, youth accommodation, and cultural uses. However, due to the temporary nature of the original architectural design, these uses have consistently faced functional adaptation limitations.

Against the backdrop of unclear property rights and non-unified regulatory authorities, this residential area experienced a seven-year period of illegal occupation starting from 2013. A large number of refugees and undocumented immigrants entered the vacant buildings, spontaneously forming an informal residential community. Subsequently, the municipal government gradually intervened through the "MOI – Migrants an Opportunity for Inclusion" program, collaborating with multiple public and religious institutions to promote migrant resettlement and clearance. It was not until 2020 that the area was basically vacated.

Currently, this district is in the functional reconstruction phase following de-occupation. Some buildings are planned to be renovated into student apartments, social housing, or temporary housing facilities. For instance, the urban fund operated by Prelios SGR has launched a transformation scheme aimed at introducing stable rental arrangements and public cultural spaces to achieve longer-term social integration and economic sustainability. Although this process still faces multiple obstacles such as building aging and funding shortages, the redevelopment practices in this area have gradually become a typical case study for the City of Turin in handling Olympic heritage and the governance of urban marginal spaces.

6.3 Spatial Analysis of the Turin Olympic Village

This section focuses on the analysis of key factors such as the transportation network, regional PSRI planning, and the functions surrounding the site. First, the pedestrian flow potential around the site is evaluated to provide a reference for subsequent design in terms of user flow. Second, the current condition of the site is examined from the perspective of spatial quality, so as to provide a basis for judging spatial value and identifying directions for improvement in subsequent design practice. Finally, attention is given to the use-related problems within the site, with key issues identified and preliminary optimization strategies proposed through local micro-adjustments in response to actual needs.

6.3.1 Pedestrian Flow Analysis

(1) Transportation Conditions

First, the transportation and road system around the site was mapped (Figure 6-22). As the framework for organizing urban space, roads not only serve as the main carriers of

vehicular traffic, but also have a decisive influence on the distribution of pedestrian flow. There is one arterial road on both the north and south sides of the site, a secondary road on the west side, and a railway underpass running through the middle of the site. Among them, the northern arterial road has a relatively balanced proportion between carriageway and pedestrian space. With diverse functions on both sides and a strong everyday atmosphere, it can be regarded as a typical main residential street. By contrast, the southern arterial road is mainly oriented toward motorized traffic and functions as an urban arterial road.

On the basis of the transportation network analysis, particular attention should be paid to the PSRI (Park of Health, Research and Innovation) plan in the southern area of the site. Combined with the discussion in Section 6.2.2 on the functional potential of the site, it can be seen that this plot will in the future be positioned closely around the PSRI development strategy, and will inevitably form close transportation connections with the site, thereby significantly affecting the scale of pedestrian flow.

As shown in Figure 6-22, there are currently two main shortest routes connecting the two existing PSRI areas to the site: one is the overpass passage on the west side, and the other is the above-mentioned railway underpass. It is worth noting that this underpass rises to ground level at the crossroads not far north of the site, from which several potential pedestrian paths extending from north to south into the site are generated (as shown in the figure), further strengthening the accessibility linkage between the site and the PSRI area.

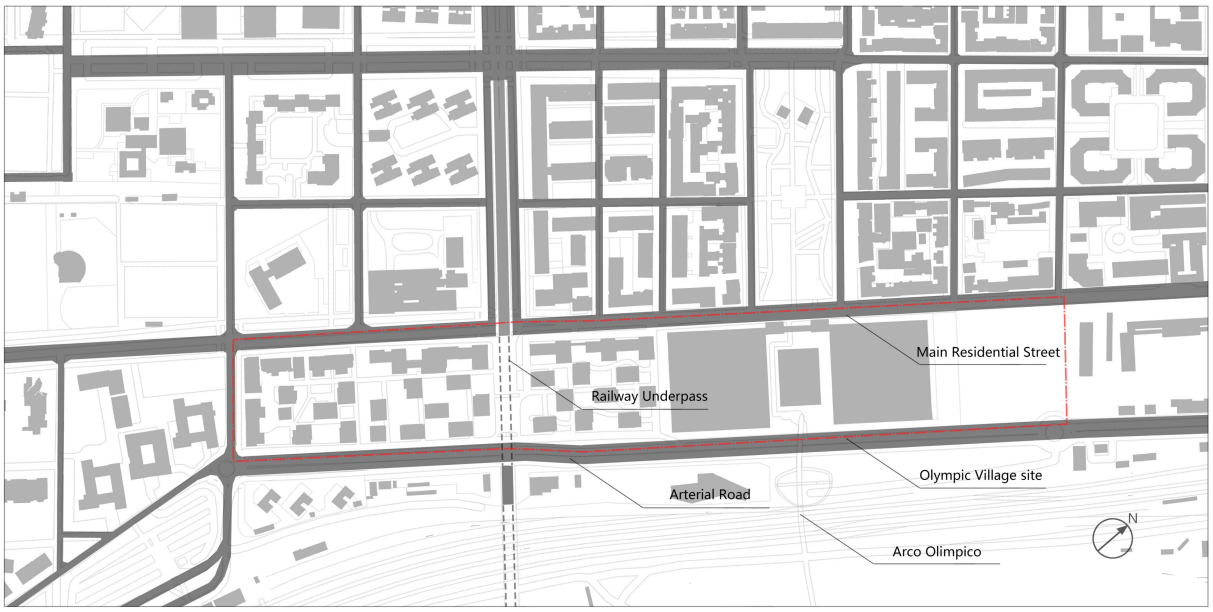


Figure 6-22 Traffic roads

Source: Author’s own drawing

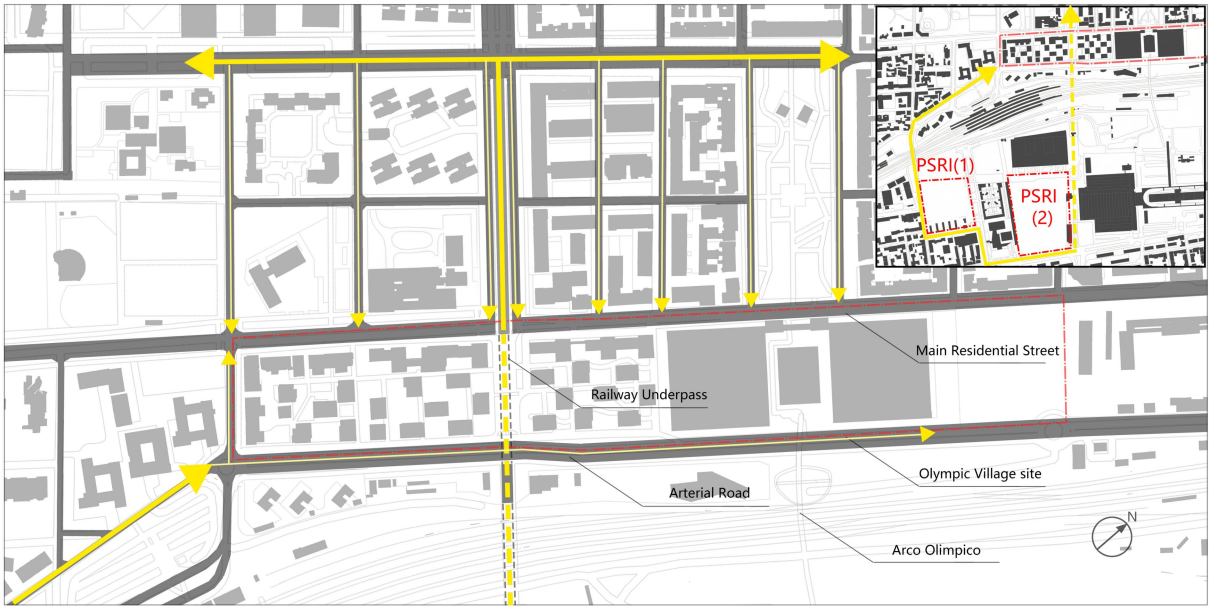


Figure 6-23 Transport Connection with the PSRI Plan

Source: Author's own drawing

(2) Functional Distribution

The functional layout around the site was examined. Functional programs directly affect the activity characteristics and spatial distribution of users. Therefore, through an analysis of surrounding functions, it is possible to effectively predict the distribution pattern and movement direction of pedestrian flow.

Figure 6-24 highlights the dominant functional types and key functional nodes of the plots surrounding the site, including parks, commercial facilities, and bus stops. As shown in the figure, the northern and western sides of the site are mainly characterized by commercial-residential areas, with active functions and dense pedestrian flow; by contrast, the southern and eastern sides are mainly residential areas and undeveloped plots, with relatively lower overall vitality.

It is worth noting that a relatively large park is located directly in front of the Ex-MOI site, together with several shops and bus stops, forming an important public activity node. Directly behind the site lies the Olympic Bridge, which constitutes an important north–south circulation corridor. In addition, a school is located to the south of the site and also serves as a key facility attracting daily pedestrian flow. Together, these nodes constitute the core factors affecting the pedestrian circulation patterns and intensity of use of the site.

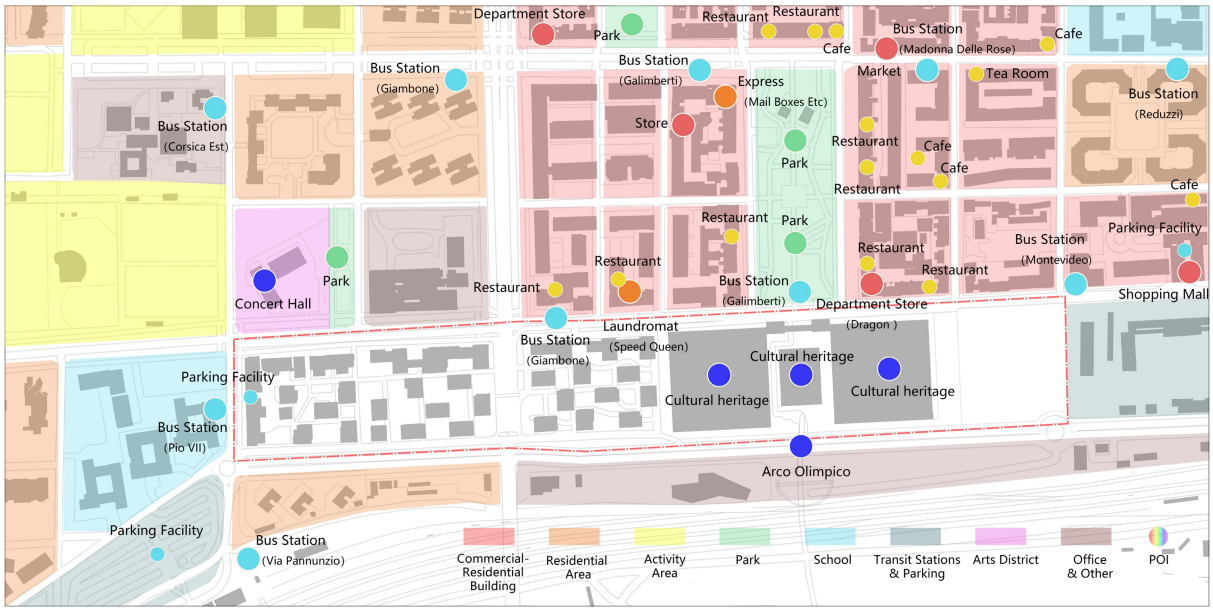


Figure 6-24 Functional Zoning and Key Nodes

Source: Author's own drawing

(3) Analysis of Pedestrian Flow Potential

Based on the professional opinions of ten planners, an evaluation table was established to assess the degree of influence of different factors on pedestrian flow (Table 6-2). On this basis, the impacts of surrounding factors on pedestrian flow potential were quantitatively evaluated (Figure 6-25). Furthermore, based on these evaluation results, a preliminary analysis of the overall pedestrian flow potential of the site was conducted, as shown in Figure 6-26.

The evaluation results show that the pedestrian flow potential on the northern side of the site is significantly higher than that on the southern side. This difference is mainly caused by variations in the surrounding functional layout. The northern side is adjacent to major everyday streets, where commercial, leisure, and public service facilities are highly concentrated, and it is also close to a large park, thus forming an active public interface. By contrast, the southern side is mainly bordered by an arterial road for motor vehicles and low-density residential areas, lacking functional nodes that attract pedestrian flow, and therefore showing relatively low pedestrian flow potential. It is worth noting that Analysis Point 19, located at the foot of the Olympic Bridge, receives part of the pedestrian flow from the southern mixed commercial area, and its potential value is therefore relatively higher.

In addition, the pedestrian flow potential on the outer side of the site is generally much higher than that on the inner side. This phenomenon is closely related to the current temporary use conditions and physical barriers in the inner area. As noted in Section 6.1.5, the public space of Lotto VII is currently used as a temporary parking lot. Section 6.2.4 further indicates

that Lotto II, namely the Ex-MOI area, is extensively enclosed by temporary barriers and is in a de facto idle or abandoned state, which severely weakens its accessibility and attractiveness. In particular, the spaces at Analysis Points 8 and 9 have long been closed off and have almost become “no-man’s-land,” with pedestrian flow potential approaching zero.

Table 6-2 Degree of Influence of Different Factors on Pedestrian Flow

Rank	Factor	Description
1	Commercial	Commercial activities are one of the main sources of attraction in urban space, providing opportunities for consumption, services, and employment, and generating the strongest pull on pedestrian flow.
	Green Space / Parks	Parks and green spaces provide spaces for rest and recreation and attract large numbers of pedestrians.
2	Leisure	Leisure facilities encourage staying and social interaction and play a strong role in attracting slow-moving users.
	Commercial-Residential	Mixed commercial-residential land combines residential and commercial functions. Pedestrian flow is more evenly distributed over time, and its overall attraction is higher than that of purely residential areas.
	Cultural	Although cultural venues are not used on a daily basis, they have strong gathering capacity and topicality, and can generate concentrated pedestrian flow during specific periods.
3	Bus Stops	Bus stops are key nodes of pedestrian distribution and significantly enhance the attraction of surrounding areas.
	Public Services	These include parcel stations, community service points, as well as public service facilities such as hospitals and schools, and generate stable pedestrian demand.
	Public Space	Open spaces such as squares and pedestrian streets do not generate functions by themselves, but can effectively guide and gather pedestrian flow through event organization and interface improvement.
	Arco Olimpico	Crossing the railway area, it connects the site with the commercial complex Centro Commerciale Lingotto and indirectly contributes pedestrian flow.
4	Residential	Residential areas generate basic daily pedestrian flow, but their attraction is relatively weak if supporting functions are lacking.
	Road Intersections	Road intersections are key nodes where pedestrian movement changes direction. They allow access from multiple directions and naturally generate a convergence effect.

Rank	Factor	Description
5	Office	Office buildings mainly attract commuting flow, mostly during weekday daytime. Pedestrian flow is sparse at night and on weekends, so their attraction is relatively limited.
	Arterial Roads	Arterial roads carry heavy motor traffic and are often equipped with medians, making pedestrian movement inconvenient. However, they still have some guiding effect because of their strong connectivity.
6	Parking Lots	Parking lots themselves have no attraction. As traffic-supporting facilities, they only generate brief pedestrian flow when used by drivers.
	Secondary Roads	Secondary roads carry less vehicular traffic and in some cases allow pedestrian crossing, but their circulation efficiency is relatively low and their attraction to pedestrian flow is weak.
	PSRI Strategy	Relevant higher-level planning intends to incorporate the future development of the site into the Parco della Salute, della Ricerca e dell'Innovazione (PSRI) project, implying future transport connections between the two.

Source: Author's own drawing

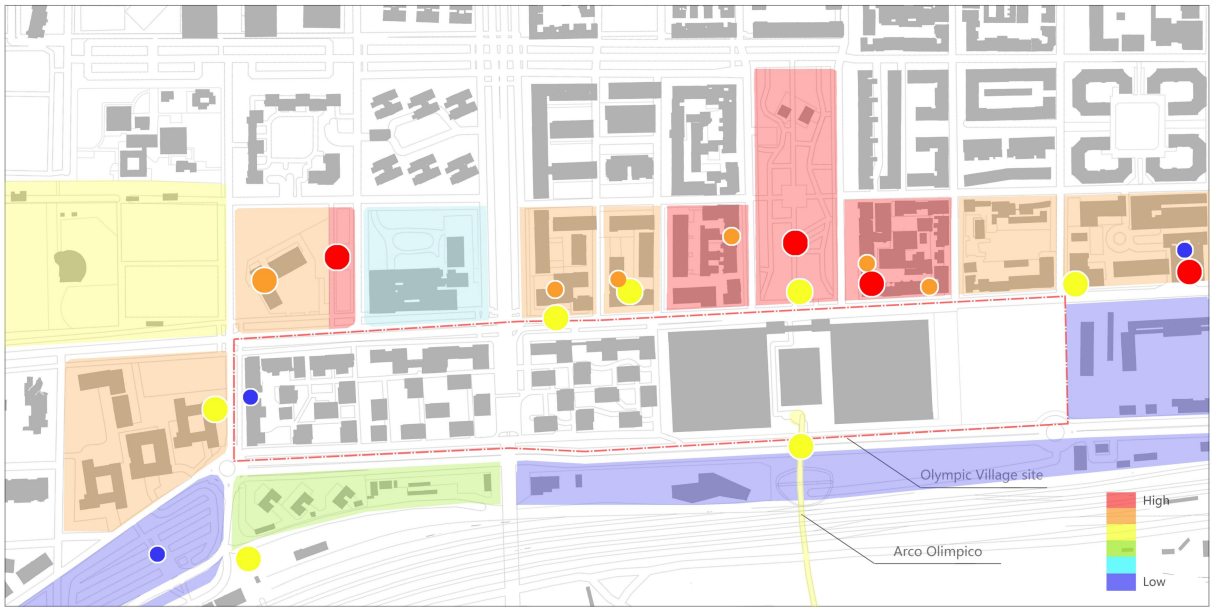


Figure 6-25 Evaluation of the Influence of Different Factors on the Site's Pedestrian Flow Potential

Source: Author's own drawing



Figure 6-26 Pedestrian Flow Potential

Source: Author's own drawing

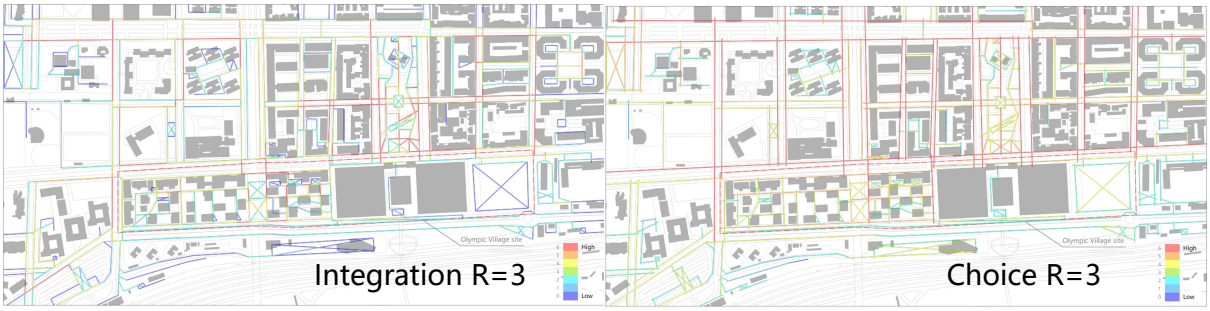


Figure 6-27 Integration and Choice

Source: Author's own drawing

This study further incorporates Space Syntax analysis. The primary rationale for selecting this method lies in the fact that the distribution of pedestrians and vehicular traffic within urban environments is largely systematically guided by the geometric morphology and topological structure of street networks. The fundamental reason why this "network effect" can effectively predict macro-level pedestrian and vehicular flow dynamics is that the configurational characteristics of street networks exhibit high congruence with the basic cognitive strategies humans rely upon during path selection processes[58][59].

Building upon this theoretical foundation, Space Syntax analytical tools can identify key nodes and pathways with high accessibility or high through-movement potential at the configurational level by quantifying indicators such as integration, choice, and angular segment integration within street networks. These indicators not only reflect the connectivity efficiency of the spatial structure itself but also implicitly suggest behavioral tendencies

where users may spontaneously gather or traverse in situations without clearly defined destinations. Specifically, the software analysis primarily focuses on data regarding local integration and local choice. Local integration reflects the ease with which a particular street segment can be traversed within its adjacent topological range; higher values indicate that the pathway is more likely to be used by pedestrians as a "destination" or "short-distance gathering point." Choice, on the other hand, measures the frequency with which a pathway functions as a "through-movement" route within the entire system; high choice values typically signify stronger traffic flow or through-movement potential. Local integration is analyzed using an axial map as the base layer, while local choice employs a segment map base layer, incorporating angular analysis to more closely simulate "real pedestrian movement"[60].

As shown in Figure 6-27, the local integration and choice values of roads on the northern side of the site are higher than those on the southern side, indicating that they not only possess good local accessibility — capable of attracting nearby residents for brief stays or social activities—but also serve as important channels for intra-regional or inter-regional movement. In contrast, roads within the inner area of the site exhibit lower local integration and choice values, suggesting their relatively peripheral position within the network. They lack attractiveness as destinations and are less frequently used as through-movement routes, potentially resulting in sparse pedestrian flow and insufficient vitality. Overall, the Space Syntax analysis results corroborate the preceding analysis of pedestrian flow potential.

6.3.2 Spatial Quality Analysis

This subsection evaluates the spatial quality of the site, focusing on the key elements within and around the site and their ranges of visibility, and on this basis makes a comprehensive judgment of the quality of the relevant spaces.

(1) Analysis of Site Elements

First, the key elements within and around the site that have a significant impact on spatial quality were identified. Based on site analysis and field investigation, four categories of relevant elements were selected: two parks, the cultural heritage site Ex-MOI, and the Olympic Bridge (Arco Olimpico) (see Figure 6-28).

Among them, the two parks, as large urban green spaces, not only help regulate the local microclimate and improve environmental comfort, but also possess strong visual appeal through their natural landscape. If the surrounding spaces can effectively borrow views from the parks or establish visual connections with them, their spatial quality can be significantly

enhanced.

Ex-MOI and the Olympic Bridge, by contrast, are important cultural elements. They carry the historical memory of the Turin Olympic period and embody profound cultural value and sense of place. If adjacent spaces can respond to or incorporate these cultural attributes in design, their spatial identity and perceived quality can also be effectively strengthened.



Figure 6-28 Elements Affecting Spatial Quality

Source: Author's own drawing

(2) Visibility Analysis

Therefore, analyzing the visible range of the above-mentioned important elements becomes a key basis for evaluating the potential of spatial quality. Spaces within the site that fall into the visible range naturally possess the advantage of borrowing views from or responding to these elements, and are thus more likely to achieve quality improvement.

Based on the Visibility Step analysis results in Step Depth (Figure 6-29), this study takes the areas with Step Depth ≤ 1 as the effective visible range of each element. At the same time, the viewing distance is reasonably controlled in combination with actual site conditions. Although spaces that are too far away may technically fall within the visible range, their visual perception is weakened, making it difficult for these elements to effectively enhance spatial quality.

According to the above criteria, the integrated visible range of the important elements was finally defined, as shown in Figure 6-30. The figure shows that the eastern side of the site contains a larger area within the effective visible range, and therefore has greater potential for

quality improvement, providing an important reference for subsequent spatial layout and design strategies.

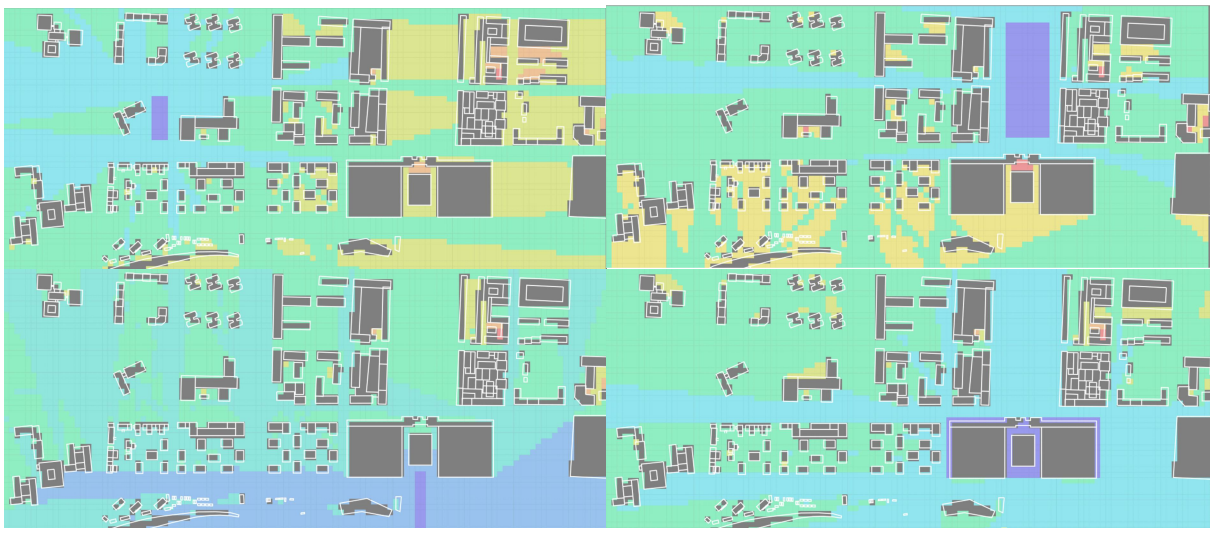


Figure 6-29 Visibility Analysis of Key Element

Source: Author's own drawing



Figure 6-30 Visible Range of Key Elements

Source: Author's own drawing

6.3.3 Analysis of Site Use Conditions

Based on the macro-level analysis of site problems in Section 1.3, it can be seen that the site suffers from issues such as unreasonable temporary planning and the ineffective use of green resources. To gain a deeper understanding of the current spatial condition, this

subsection conducts a more detailed analysis at the micro level, covering the current temporary uses, the use of public space, and the distribution of greenery.

(1) Current Temporary Uses on the Site

First, the temporary uses within the site are systematically reviewed and evaluated. Overall, such uses are relatively limited and are mainly concentrated in the southern residential area. As shown in Figure 6-31, the existing temporary uses mainly include three types: temporary parking lots, temporary balconies, and temporary external staircases.

Among them, the plot originally planned as a community park is currently used as a temporary parking lot. This change has not only significantly weakened the area's potential to attract pedestrian flow, but also disrupted the daily connection between adjacent communities, resulting in reduced spatial vitality and low overall spatial value. Functional adjustment is therefore urgently needed.



Figure 6-31 Current Temporary Uses on the Site

Source: Author's own drawing

The emergence of temporary balconies may be closely related to the transformation of the Olympic Village from temporary accommodation during the Games to a long-term social housing area. The original design was oriented toward short-term residence and did not fully consider the need of long-term residents for private outdoor space such as balconies. Residents therefore added balconies spontaneously, reflecting users' actual spatial needs. This kind of informal intervention has a certain adaptive value and should be recognized and reasonably retained in subsequent renewal.

As for the temporary external staircase, the building where it is located is currently

operated as a youth residence. The addition of this staircase was mainly intended to meet fire safety requirements and serves as a functional supplementary facility. It has clear practical necessity and should also be retained.

(2) Unreasonable Temporary Planning within the Site

Second, the temporary planning conditions within the site were investigated and evaluated. In addition to the temporary use issues mentioned above, the site also contains several cases of spatial obstruction and resource waste caused by inappropriate temporary planning, typically manifested in temporary barriers and the abandoned spaces derived from them.

As shown in Figure 6-32, temporary fences, walls, and other physical barriers have been widely installed at the boundary between the residential area and the former market building (Ex MOI), as well as within the Ex MOI building itself, significantly restricting natural pedestrian movement. Although these barriers were introduced because Ex MOI is undergoing restoration and redevelopment, the project has progressed slowly and its phase objectives have remained unclear since its launch in 2019, resulting in the long-term closure of the space. A direct consequence is the severe vacancy of the warehouse area in the northern part of the site and the continuous decline of spatial vitality. This condition is clearly unreasonable. If long-term construction is indeed necessary, a phased strategy could have been adopted to open certain areas while ensuring safety, and temporary uses such as pop-up events, community markets, and cultural exhibitions could have been introduced to maintain or even activate the vitality of the place, thereby avoiding the negative effects of a fully enclosed development model.

In addition, the square in Lotto I on the eastern side of the site has long remained unused. Although the latest official plan proposes to use it for residential units and an emergency shelter, the project has not yet substantially started. This state of “planning suspension” greatly wastes the potential of the square as a public space. Given the high flexibility and reversibility of temporary use, it is particularly suitable for intervention during such transitional periods, activating the space in a low-cost and efficient way while accumulating popularity and usage data for future formal development.

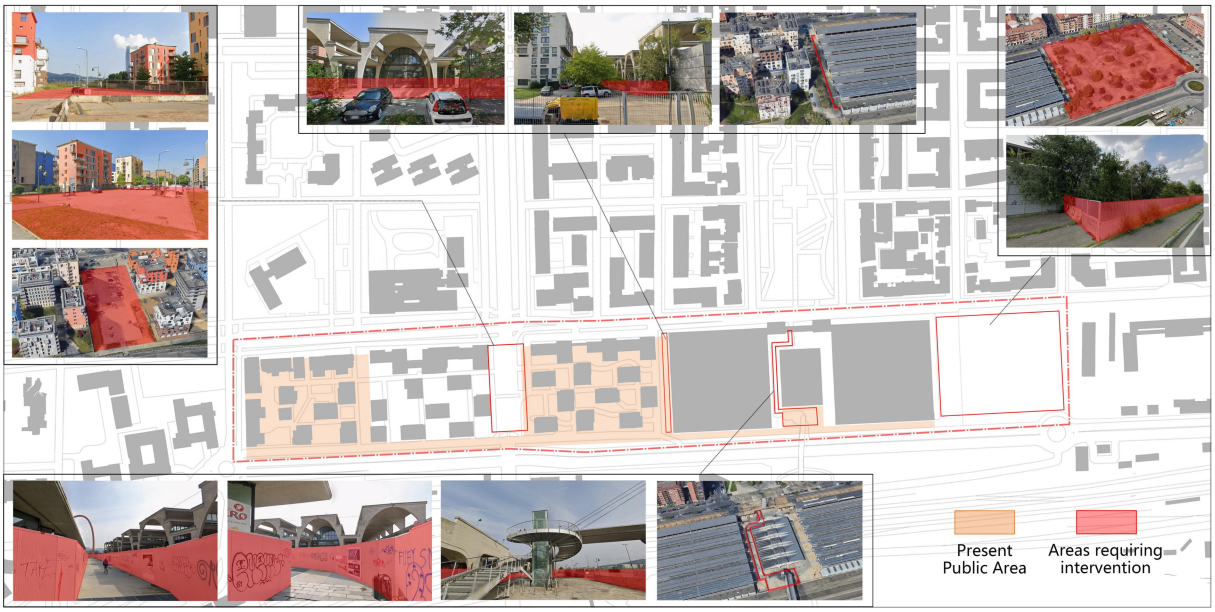


Figure 6-32 Areas Requiring Intervention on the Site

Source: Author's own drawing

(3) Green Space Planning and Problems within the Site

Finally, a systematic survey of the existing greenery in the Ex-MOI site shows that the current green space is mainly concentrated in the southern residential area (Figure 6-33). Although it has a certain green base, its spatial layout and functional performance remain clearly inadequate, mainly in the following three aspects.

First, the green space lacks effective connection with buildings and public space. As shown in the red-marked areas, the green areas in Plots 1 and 2 have been used as supporting parking lots, making them unable to accommodate public activities or leisure functions. The green areas in Plots 3 to 6 are completely enclosed by walls or fences, and this physical isolation seriously hinders public access and use, turning the green space into an "island."

Second, spatial interaction is weak and public accessibility is low. As shown in the yellow-marked areas, the green space in Plot 3 is considerable in size, but it has not been opened as an accessible space according to the original plan, resulting in a clear lack of interaction. At the same time, the current design places excessive emphasis on formal aesthetics while neglecting human scale and behavioral needs. It lacks key elements such as seating facilities, activity nodes, and soft boundaries, so the green space has only ornamental value and can hardly support everyday public life such as social interaction and recreation, becoming a typical "visible but inaccessible" landscape.

Third, its ecological regulatory function is seriously insufficient. The existing greenery is mainly composed of low lawns, with a low proportion of trees and shrubs. The vegetation

structure is monotonous and lacks an effective shading system and microclimatic regulatory capacity. As a result, it is unable to perform basic ecological service functions such as cooling, dust reduction, and stormwater retention, which weakens its environmental value in urban sustainability.

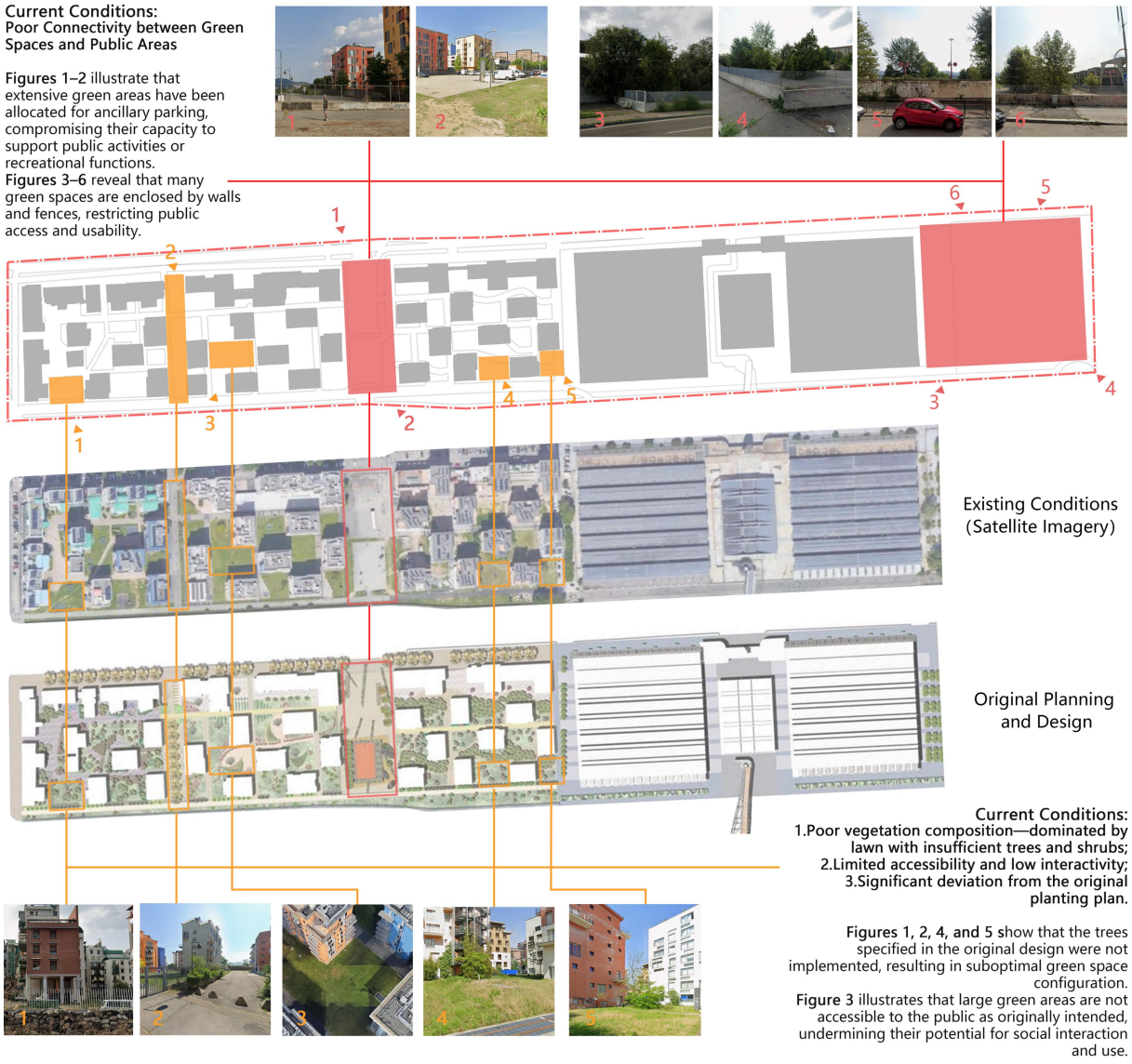


Figure 6-33 Green Space Planning and Problems on the Site

Source: Author's own drawing

However, the survey also reveals that the area has considerable potential for ecological and spatial renewal. On the one hand, the existing green area is sufficient, and the terrain is flat and open, providing a good physical basis for light-touch and reversible temporary micro-renewal, such as modular planting, seasonal landscape installations, and temporary activity insertions. This makes it possible to improve both spatial quality and ecological performance at relatively low cost. On the other hand, the site is adjacent to a large urban park

and enjoys favorable conditions for ecological connectivity and regional coordination. By establishing green corridors and opening up visual and circulation interfaces, the currently isolated green space can be incorporated into a broader urban ecological and public-space network, strengthening its dual role as a carrier of vitality and an ecological node.

In summary, the site has performed poorly in post-event reuse, its temporary planning shows clear irrationality, and its green resources have failed to realize their potential, resulting in evident waste. However, its strong redevelopment potential and favorable location conditions provide a solid foundation for its use as a pilot area for strategies guided by Temporary Urbanism.

6.4 Analysis of Population Needs and Functional Gaps

Investigating user needs is a crucial preliminary step in site renewal design. Its findings can not only accurately reveal the structural deficiencies in the current functional configuration of the space, but also provide a solid empirical basis for subsequent design directions.

This study refers to questionnaire data from a 2023 survey conducted on the Ex-MOI site and its surrounding communities [5]. Although these data are now three years old, the area has remained in a state of low-intensity use since the end of the Winter Olympics, and its physical environment, spatial pattern, and use mode have not undergone substantial change. Core problems, such as unreasonable temporary planning and use of public space and the waste of green resources, still persist. Therefore, the user demands reflected in this survey remain highly relevant and valuable as a reference at present.

Based on a systematic analysis of these data (Figure 6-34), this study further identifies significant gaps in the functional needs of the target population across four dimensions: commercial, cultural, event-related, and social service needs. These gaps not only confirm the deficiencies of the current site condition, but also provide a clear basis for the selection and spatial arrangement of temporary intervention strategies.

In terms of specific functional types, retail stores and markets show the highest demand frequencies, reaching about 28 and 20 responses respectively, reflecting residents' strong demand for commercial services. This is followed by events or exhibitions (about 13 responses), indicating a relatively high public willingness to participate in temporary cultural activities. By contrast, demand for art galleries, innovation hubs, and community spaces is relatively lower, at 7, 6, and 3 responses respectively, but this also suggests an insufficient

current supply of cultural, artistic, and social interaction spaces on the site.

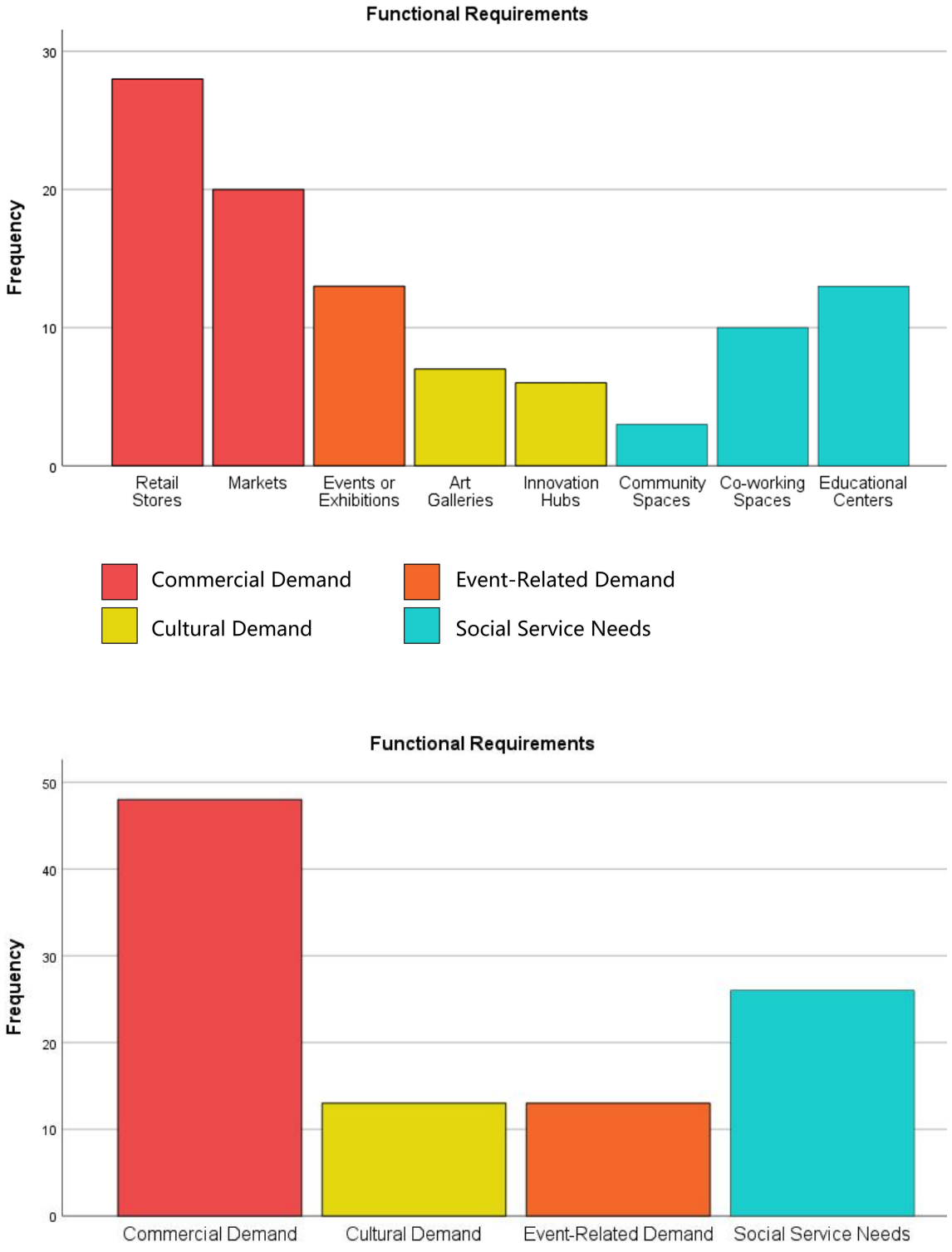


Figure 6-34 People Needs

Source: Author's own drawing

A further integrated analysis of these needs under the four major dimensions (lower part of Figure 6-34) reveals their overall structural characteristics more clearly. Commercial demand is the most prominent category, with 48 responses, accounting for nearly half of the

total demand and highlighting the lack of daily supporting services in the area. Social service needs rank second, with 26 responses, mainly concentrated in public service fields such as education and co-working. Cultural demand and event-related demand each account for 13 responses. Although their total volume is not high, they still reflect the public's basic expectations for cultural experience and participation in public events.

In summary, the survey results indicate a significant imbalance in the functional configuration of the Ex-MOI site: commercial services are seriously lacking, the social support system is weak, and the supply of cultural and event spaces is insufficient. These demand gaps not only reveal the structural deficiencies of the existing space, but also provide clear guidance for the formulation of subsequent temporary intervention strategies. That is, priority should be given to the introduction of low-cost and highly flexible commercial and social service facilities, while temporary activities should be used to activate cultural space and gradually build a diverse, inclusive, and sustainable community functional network.

6.5 Chapter Summary

This chapter takes the Turin 2006 Olympic Village as the research object and systematically reviews its complete process of evolution, from locational and historical background, construction process, to post-event transformation. It focuses on the changes in property ownership, the evolution of supporting residential functions, and the structural transformation of industry. Through field investigation, the surrounding buildings, planning documents, architectural form, and spatial structure of the site are evaluated at multiple scales. Combined with pedestrian flow, traffic, and current use conditions, the chapter reveals the core problems of inefficient pedestrian organization, uneven spatial quality, disordered temporary use, and the lack of green space planning.

Chapter7 Temporary Renewal Design for the Turin Olympic Village

This chapter first systematically analyzes the site based on Chapter 6, comprehensively considering key factors such as surrounding functional layout, transportation conditions, and future development plans, to identify core nodes suitable for temporary renewal initiatives. Subsequently, drawing upon the typical reuse models and temporary strategies for Olympic Villages summarized in Chapter 4, a design framework for the overall transformation of the Turin Olympic Village is constructed. Simultaneously, design prototypes of transferable temporary strategies distilled in Chapter 5 are integrated to provide solid design support for specific renovation content. On this foundation, targeted design practices are carried out in response to the site's spatial characteristics, and a phased, actionable implementation plan is proposed to ensure that the temporary renewal possesses both practical feasibility and long-term adaptability.

7.1 Design Principles

(1) Emphasis on Preservation

In temporary use practices oriented toward cultural heritage, preservation must always serve as the primary principle. All installations of temporary facilities and renovation measures must strictly avoid causing irreversible damage to the ground, building structures, and the overall historical landscape. Design schemes must ensure disassemblability and reversibility, meaning that after the temporary usage period concludes, the site can be fully restored to its original condition without leaving any permanent intervention traces. Additionally, temporary usage strategies should fully consider and minimize interference with ongoing government-led projects, particularly when relevant areas are undergoing continuous work such as restoration, remediation, or archaeological activities. In such cases, coordination of timing and spatial arrangements is essential to avoid functional conflicts or resource wastage.

Through scientific and prudent temporary utilization methods, not only can the effective protection and living inheritance of cultural heritage values be achieved, but the authenticity and integrity of the heritage entity and its environment can also be genuinely safeguarded while responding to contemporary functional needs.

(2) Anchoring Tourism-Oriented Industrial Positioning

The temporary renewal design of the Turin Olympic Village in this study closely aligns

with Turin's government-led industrial transformation strategy centered on tourism since the 1990s. In response to industrial decline, Turin explicitly proposed economic restructuring in its 1995 Master Plan, integrating service industries with industrial heritage reuse. Subsequently, through the 1998 International Promotion Strategic Plan and the 2003 comprehensive tourism project, the city systematically established a development path integrating "culture, tourism, commerce, and sports."

The 2006 Winter Olympics and the title of "World Book Capital" significantly enhanced international influence, with tourist numbers continuously growing to 7.24 million by 2018, making tourism a pillar industry of Turin. Meanwhile, leveraging its profound industrial design heritage, Turin was certified as a UNESCO "City of Design" in 2014, with nearly 100,000 creative industry practitioners providing solid support for cultural-tourism integration. Typical cases such as the Lingotto Factory transformation and Dora Park regeneration exemplify the renewal logic of "design activating space, space empowering tourism."

Therefore, this study adopts tourism function activation as a core design principle, embedding the Olympic Village renewal within Turin's dual-driven development framework of "design + tourism." Through light-intervention, highly flexible temporary strategies, it is transformed into a cultural-tourism node with cultural narrative power and tourist appeal, contributing to the further development of the city's tourism industry.

(3) Implementation of Sustainable Development Concepts

In the summary of Olympic Village temporary reuse models in Chapter 4, the identified "modular and disassemblable" strategy is highly aligned with the sustainable development concepts currently advocated globally, making it particularly suitable for large-scale temporary events such as the Olympics. Therefore, this concept should be systematically integrated into the Olympic Village renewal design.

Specifically, temporary buildings should possess capabilities for rapid assembly and efficient disassembly to ensure that projects can be swiftly implemented and conveniently dismantled after events conclude, without causing permanent interference to the site's original functions or ecological environment. Such structures are typically constructed using lightweight, low environmental impact materials that can meet short-term usage needs while facilitating later restoration of the site to its original condition, thereby achieving an effective balance between timeliness and sustainability.

Furthermore, the design process should prioritize material recycling and circular utilization to enhance resource efficiency and reduce environmental impact. For example, existing worker containers on-site can be transformed into temporary office spaces, pop-up

stores, or service facilities through simple modifications; scaffolding systems used during the demolition phase can also be reassembled into temporary stands or exhibition racks for cultural festivals, markets, and other events. Such strategies not only significantly reduce construction and demolition costs but also genuinely practice the core principles of green construction and circular economy, fully embodying the value orientation of sustainable urban renewal.

7.2 Discussion on Macro-Level Renovation Plans

Based on systematic research and in-depth analysis of the current site conditions and user needs, this study has laid a preliminary foundation for subsequent renovation design. The core task of the next phase is to formulate a macro-level design plan with guiding significance. Specifically, this section will rely on the "Methodology for Temporary Renewal of Olympic Villages Based on Prototype Reference" constructed in Chapter 3 to further establish a design framework and programmatic content that align with the characteristics of the Ex-MOI plot, providing structural support and strategic guidance for subsequent scheme development.

7.2.2 The Framework of Temporary Design

(1) Constructing the Framework Using Summarized Prototype Results

Based on the analysis of previous Olympic Village types in Section 4.2 and the exploration of potential site functions in Section 6.2.2, it is evident that the future positioning of this site will revolve around the PSRI (Health, Research, and Innovation Park) development strategy, with the subsequent reuse model being "conversion into a residential area" (Table 4-4). However, as revealed in Section 6.2.4, the post-Olympic development progress of this Olympic Village remains ambiguous, with the entire area falling into an abandoned state and internal spaces having been vacant for many years, urgently requiring renovation to activate spatial reuse. Nevertheless, given that the site already possesses a macro-level planning framework, it is inappropriate to undertake comprehensive re-planning, so as to avoid interfering with ongoing government renovation efforts. Yet the current abandoned state cannot be overlooked; at this juncture, the intervention of temporary strategies represents a relatively appropriate method for spatial activation — capable of reutilizing the site while minimally disrupting the original engineering projects.

Simultaneously, Chapter 4 summarized seven types of Olympic Village reuse patterns and further refined four typical temporary reuse types, providing sufficient reference cases for the intervention of temporary strategies. Therefore, this study has decided to select one type each

from the typical "reuse types" and "temporary reuse types" of Olympic Villages as references for the temporary renewal design of the Turin Olympic Village, thereby determining the design framework.

(2) Design Theme—"Turin Verde Park"

As revealed in the spatial quality analysis in Section 6.3.2, the site is adjacent to large-scale parks; meanwhile, the investigation of current site usage conditions in Section 6.3.3 uncovered significant waste of green resources within the site—although green areas are extensive, they lack systematic organization, remain inaccessible to the public, and exhibit weak ecological functions. In light of this, the "conversion into a park" type (Category 4) summarized in Table 4-4 emerges as the most valuable reuse reference. On one hand, this type is well-supported by international precedents; on the other hand, targeting "parkification" can guide subsequent temporary strategies to focus on the reconstruction of green open systems, thereby specifically enhancing the accessibility, functional utility, and ecological benefits of green spaces. Furthermore, transforming the site into a park highly aligns with Turin's tourism-oriented industrial positioning and resonates with this study's core design principle of "activating idle spaces through tourism functions."

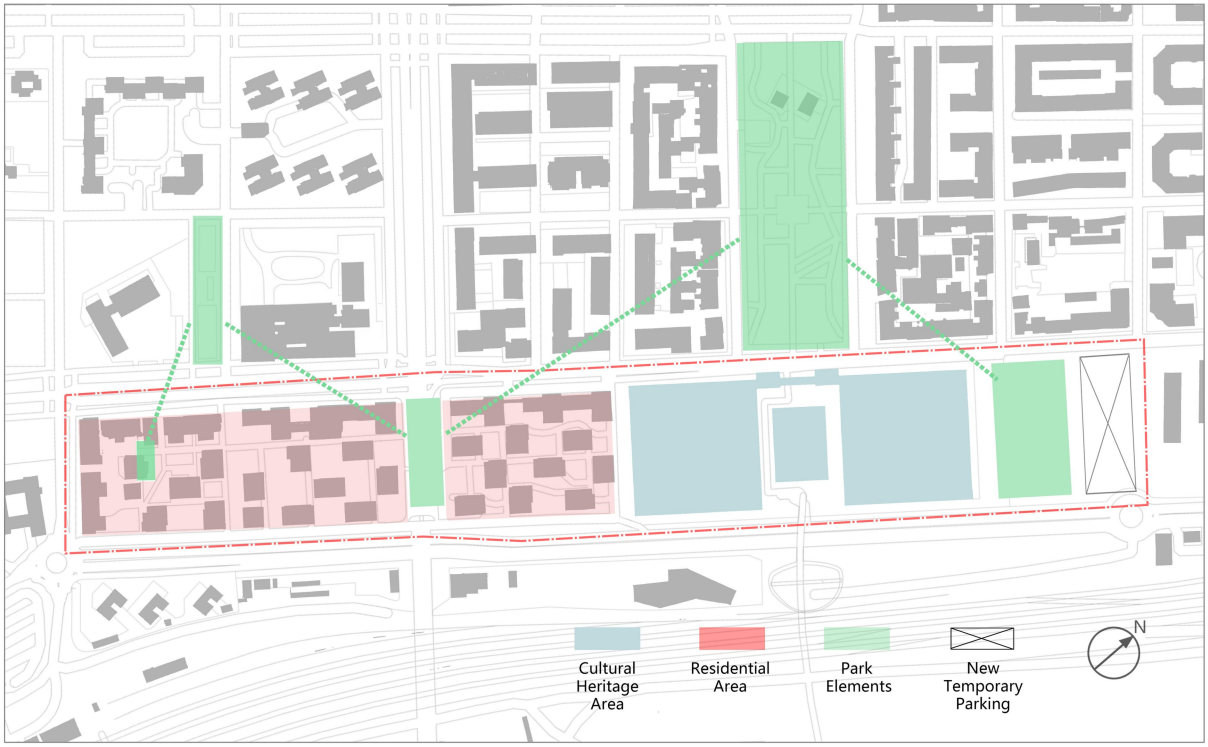


Figure 7-1 Park Theme Schematic

Source: Author's own drawing

Therefore, this temporary renewal design is named "Torino Verde Park" (Turin Green

Trace Park). This nomenclature not only emphasizes the reuse and optimization of existing green resources but also provides an opportunity to address the structural deficiencies currently present in the green space system. Simultaneously, it continues the sustainable philosophy advocated by Turin's 2006 Winter Olympics—the first Olympic event in history to explicitly propose a "carbon neutrality" goal — particularly its "Turin Climate Heritage" initiative, thereby further reinforcing the project's multi-dimensional significance across environmental, cultural, and economic dimensions.

(3) Core Temporary Strategy—"Modular and Demountable"

After establishing "park" as the design theme, it is necessary to define the core temporary design strategy. At this point, the "temporary reuse types" summarized in Section 4.2.2 demonstrate significant reference value. Among them, the "modular and demountable" strategy (Category 4) exhibits excellent adaptability and replicability, particularly suitable for large-scale events with clear time limitations such as the Olympic Games, as it highly aligns with the globally promoted sustainable development philosophy. Therefore, this study establishes this strategy as the core methodology for the temporary renewal design of the Turin Olympic Village, to support the systematic realization of "Torino Verde Park" in terms of functional flexibility, resource recycling, and post-transition transformation.

(4) Core Functional Zoning—From "Historical Culture" to "Contemporary Life"

The Turin Olympic Village site possesses distinctive composite characteristics — comprising both residential areas and architectural complexes with industrial heritage value. Based on the previously established design theme and core principles, this study's functional layout will closely integrate three key elements: "park," "tourism potential," and "site conditions."

Accordingly, the plot is divided into three functional zones from north to south: the Historical and Cultural Tourism Zone (corresponding to the original market building area EX-MOI), the Life-Culture Zone (serving as a transitional zone, corresponding to Lotto VIII), and the Living Zone (corresponding to the existing residential area). These three zones are organically connected by a north-south narrative axis, forming an experiential pathway that progresses from "historical culture" to "contemporary life" — visitors can sequentially experience Olympic historical memory, participate in temporary cultural activities, and integrate into local community daily life, constituting a richly layered overall tourism experience.

This axis serves not only as a physical circulation route but also as a narrative thread

carrying temporal progression and emotional resonance: moving from "past glory" toward "present life," vividly interpreting the sustainable renewal concept of "heritage for public use." This approach also actively responds to the International Olympic Committee's recently emphasized "Legacy Planning" principle, which requires post-Games Olympic facilities to genuinely serve community development and public welfare. Similar practices include the London Olympic Park's post-Games transformation into the "Queen Elizabeth Olympic Park," which successfully integrates residential areas, educational facilities, ecological wetlands, and cultural amenities, becoming a model of urban regeneration.

In summary, this design centers on "Torino Verde Park" as the core theme, adopts "modular and demountable" as the core design strategy, constructs a recreational narrative axis extending from "historical culture" to "contemporary life," and systematically connects three major functional zones—"Historical and Cultural Tourism Zone," "Life-Culture Zone (transitional zone)," and "Living Zone"—forming a comprehensive renewal framework that integrates cultural depth, ecological value, and community vitality.

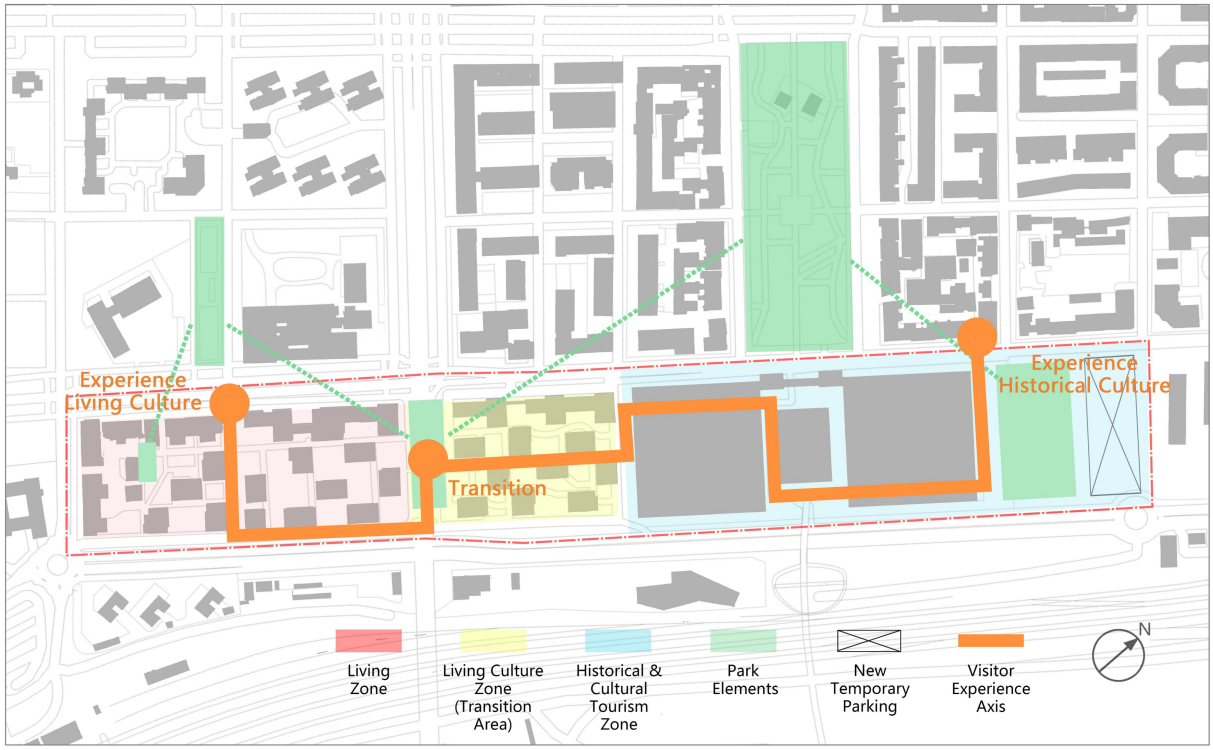


Figure 7-2 Functional Zoning and Axis Design

Source: Author's own drawing

7.2.1 Content of Temporary Design

By integrating the macro-level diagnosis of site structural issues from Section 1.3 and the micro-level usage analysis based on field research from Section 6.3.3, it is possible to clearly

identify dual disorders in spatial utilization at the Ex-MOI plot:

First, the temporary planning lacks systematicity, leading to imbalanced spatial resource allocation—the northern warehouse buildings have long remained in a state of forced vacancy with completely dormant functions; meanwhile, existing temporary uses are also unreasonable, typified by the Lotto III area being used as a temporary parking lot, which not only fails to activate spatial potential but instead exacerbates the deficiency of public functions. Second, greening planning is crude and lacks integration, resulting in significant resource waste—although the southern residential area possesses an adequate green space base, the lack of reasonable functional organization and accessibility design causes a large amount of greening to become inefficient or even inaccessible "formalistic landscapes."

In response to the above issues, this study, based on the design theme of "park" and the core design strategy of "modular and demountable," systematically invokes the five categories of temporary strategy prototypes summarized in Chapter 5—namely cultural, activity, social service, economic, and ecological environmental prototypes—according to the "Methodology for Temporary Renewal of Olympic Villages Based on Prototype Reference," to provide precise responses to the temporary design content of the Olympic Village. This response is not only rooted in the actual contradictions of the site but also, through the organic implantation of strategy prototypes, provides a spatial intervention pathway with operationality, adaptability, and exemplary value for the transformation of Ex-MOI from "functional idleness" to "vitality regeneration."

(1) Micro-adjustments to the Current Temporary Planning

First, in response to the unreasonable layout and low utilization efficiency of temporary spaces within the site, this study proposes several micro-adjustment strategies. As shown in Figure 7-3, the overall adjustment aims to optimize the public space structure and enhance its accessibility and vitality.

Specific measures include:

First, demolishing the existing temporary fences in the Lotto I area to restore its function as an open public space; simultaneously, relocating the temporary parking lot originally located in the Lotto VIII area to the east side of the Lotto I area, thereby releasing the original site of Lotto VIII and transforming it into a more public and flexible activity space.

Second, reorganizing the temporary barriers set at the boundary between the residential area and the former market building (Ex-MOI) as well as within Ex-MOI. By removing or adjusting the positions of these barriers, existing passages are effectively widened, and the

open corridor systems within buildings on both the north and south sides are connected and opened as continuous pedestrian corridors. This measure not only strengthens the spatial connections between the residential area, Ex-MOI, and the Lotto I public space but also significantly enhances the overall connectivity and usage vitality of the site.

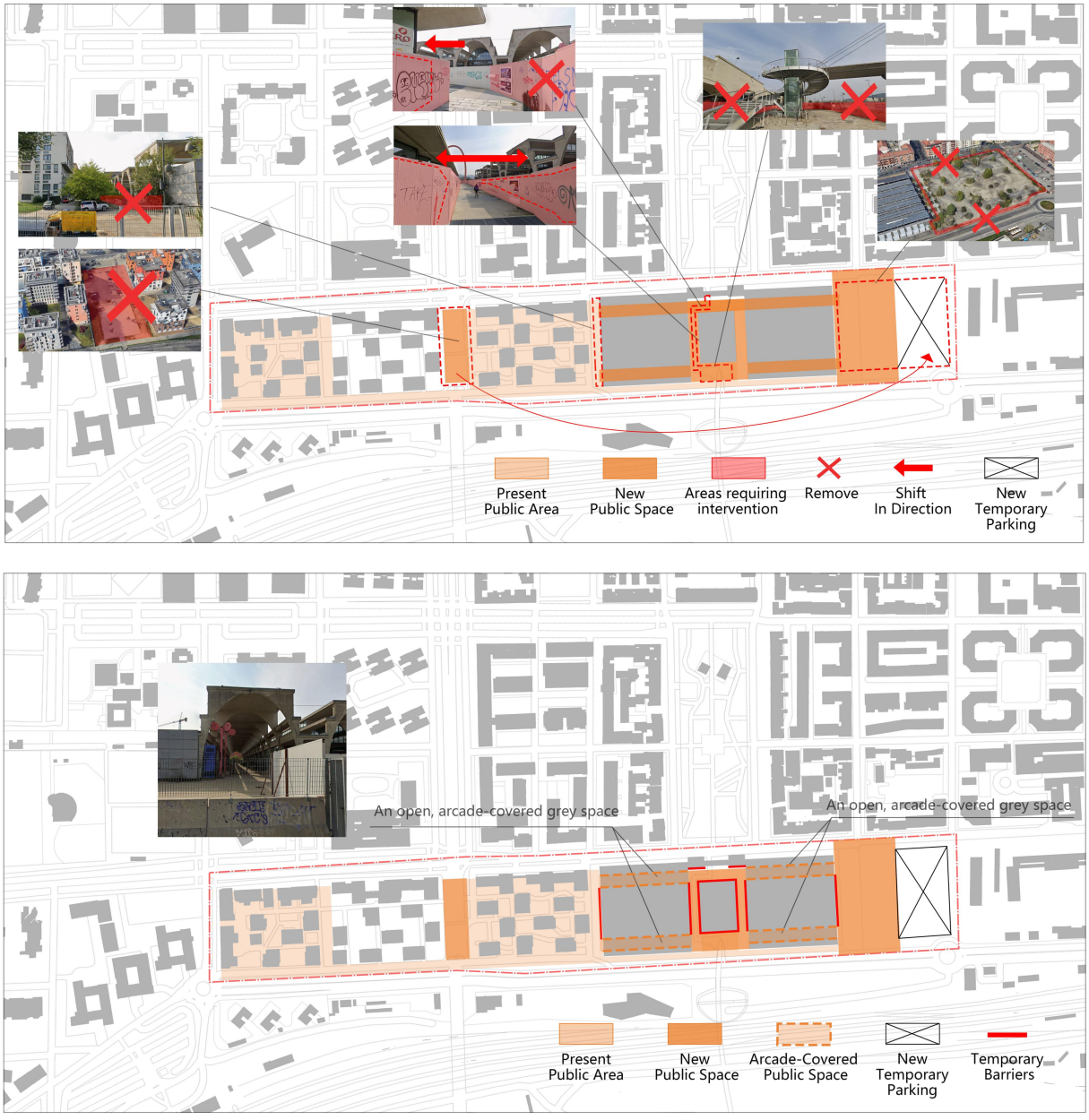


Figure 7-3 Renovation Intentions and Objectives

Source: Author's own drawing

After comprehensive evaluation, the renovated site space not only effectively ensures the continuous advancement of the Ex MOI restoration project but also significantly increases the activity areas available for public use. More importantly, this adjustment allows the two cultural heritage sites of Ex MOI and Arco Olimpico to re-enter the daily life vision of citizens and tourists, enabling them to be closely observed, experienced, and interacted with,

thereby substantially enhancing the public accessibility and social value of the heritage.

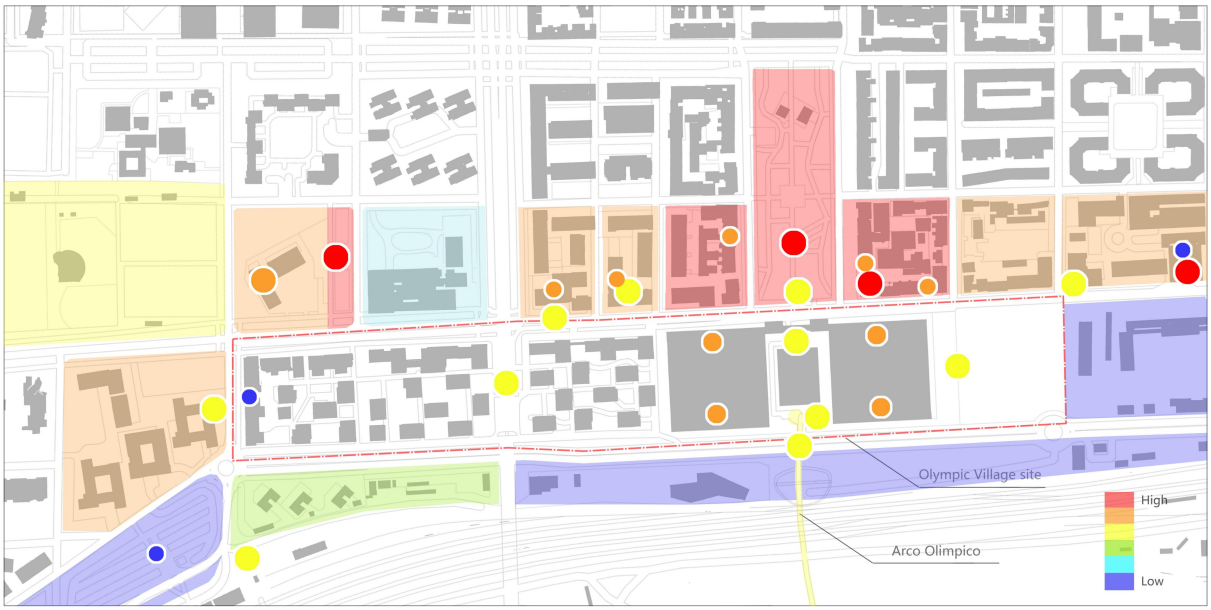


Figure 7-4 Evaluation of Impact Degree of Elements on Site Pedestrian Flow Potential (After Renovation)

Source: Author's own drawing



Figure 7-5 Pedestrian Flow Potential (After Renovation)

Source: Author's own drawing

As shown in Figures 7-4 and 7-5, the optimized layout of site elements has produced positive impacts on the overall spatial structure, significantly altering the distribution of pedestrian flow potential in the inner areas of the site. This judgment is further supported by space syntax analysis: as shown in Figure 7-6, both local integration and choice metrics have significantly improved, quantitatively verifying the enhancement of spatial connectivity and

usage vitality, thereby strongly corroborating the effectiveness and rationality of this renovation strategy.

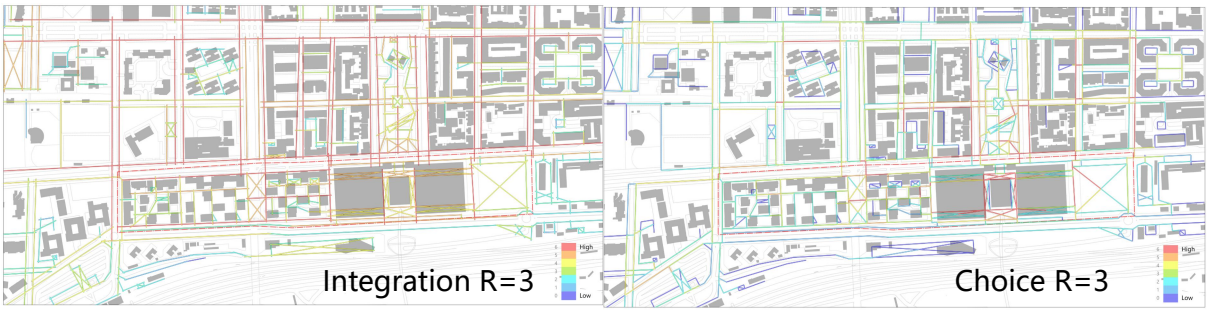


Figure 7-6 Integration and Choice (After Renovation)

Source: Author's own drawing

(2) Strengthening Greening Design Based on the Design Theme

This study has previously established "park" as the core design theme. Within this framework, and in response to the issues of lacking systematic greening planning and significantly weakened ecological efficacy within the site, this problem is categorized as a structural deficiency in the ecological dimension according to the macro methodological system constructed in this study, corresponding to the intervention type of ecological environmental temporary strategies. Therefore, strategies suitable for enhancing green space functionality and public accessibility can be selected from the temporary strategy prototype library established in Chapter 5 as design references.

The specific design objectives of this study aim to systematically improve the spatial utilization efficiency and ecological value of green spaces within the Ex-MOI plot. On one hand, by organically integrating public spaces into the existing greening system, the accessibility and daily usage frequency of green spaces are enhanced, promoting their transformation from singular "ornamental landscapes" to composite public domains that are "accessible, stayable, and interactive." On the other hand, based on preserving the existing lawn foundation, the vegetation configuration structure is optimized through systematic planting of trees, shrubs, and seasonal flowers, constructing a layered and functionally diverse plant community. This significantly enhances shading effects, microclimate regulation capabilities, and biodiversity, comprehensively strengthening the ecological service functions of green spaces. These dual objectives advance synergistically toward a vision of an "Olympic Park" that is more vibrant, inclusive, and sustainable.

These objectives not only address the core contradiction of existing greening being "form-focused yet function-deficient" but also align with the dual demands of the "Olympic Park" theme for ecological sustainability and public vitality, providing clear technical

pathways and content support for subsequent scheme design.

(3) Designing Temporary Functions Based on User Needs and Core Functional Zoning

Based on the user needs analysis in Section 6.4, it is evident that the Ex-MOI site exhibits significant functional deficiencies, specifically manifested in insufficient provision of cultural, activity, social service, and economic functions. In response to this structural gap, this study strategically implants four categories of temporary strategy prototypes—"cultural activation," "activities and recreation," "social services," and "economic incubation"—into the site space, integrating them with the aforementioned strategies focused on ecological restoration to collectively form a five-in-one temporary functional system of "culture – activity – society – economy – ecology." Building upon this foundation, this study further concretizes the design of each strategy at the functional level based on the core functional zoning design of "Historical and Cultural Tourism Zone," "Life-Culture Zone (transitional zone)," and "Living Zone," as well as the core design strategy of "modular and demountable," to enhance their operability and spatial implementation. Specific measures are as follows:

First, in the dimension of economic incubation, a temporary market is proposed as the core vehicle. Through flexible spatial organization and short-term operational mechanisms, the commercial vitality of the site is activated. The market content encompasses Olympic merchandise sales, daily necessities zones, and fast-food catering areas, satisfying residents' basic living needs while providing a low-cost display and business platform for local small enterprises and artisans, achieving rapid intervention and sustainable cultivation of economic functions.

Second, regarding cultural activation, plans include establishing a Winter Olympics-themed exhibition to systematically present the historical trajectory and event memories of past Winter Olympics; simultaneously setting up an MOI (Turin Olympic Village) historical exhibition area to excavate and reproduce the unique narrative value of this plot as Olympic heritage. Additionally, combined with natural art elements, natural art zones and Olympic art zones will be created through installation art, public painting, and other forms to strengthen the site's cultural identity and public participation.

Third, in the dimension of recreation and activities, an art theater is proposed as a temporary public activity space to support diverse cultural events such as small performances, community theater, and open-air cinema; simultaneously planning Olympic documentary screening activities to evoke collective memory through visual media, enhancing emotional connections and social cohesion of the place.

Finally, in terms of social services, public office spaces will be established to provide flexible working environments for freelancers, entrepreneurs, and remote workers; concurrently planning community dining spaces that integrate shared kitchen and neighborhood table functions to promote interaction among residents, enhancing community belonging and daily usage frequency.

The above functional designs not only precisely respond to the diverse needs revealed by user research but also highly align with the design theme of "park," operating within the framework of core functional zoning. Simultaneously, specific design strategies will revolve around the core design strategy of "modular and demountable." Through functional integration and spatial activation, the social attractiveness and daily usage vitality of the site are significantly enhanced, thereby constructing a composite urban space that integrates cultural depth, social warmth, and economic vitality. This practical pathway provides an operable and replicable reference paradigm for the application of temporary urbanism in complex Olympic heritage scenarios.

7.2.3 Selection of Renovation Nodes

This subsection further identifies and screens spatial nodes with renovation potential based on the site analysis results from Section 6.3, serving as key entry points for design intervention in this study.

By overlaying and integrating the aforementioned analytical results into a single diagram (Figure 7-7), intuitive comprehensive evaluation can be achieved, providing an important basis for the subsequent positioning of renovation nodes and strategy selection. After multi-dimensional comparison and assessment, six core nodes labeled A through F were ultimately identified as entry points for this renovation. The following sections will elaborate on the selection rationale for each node and propose appropriate types of temporary intervention strategies in conjunction with their spatial characteristics.

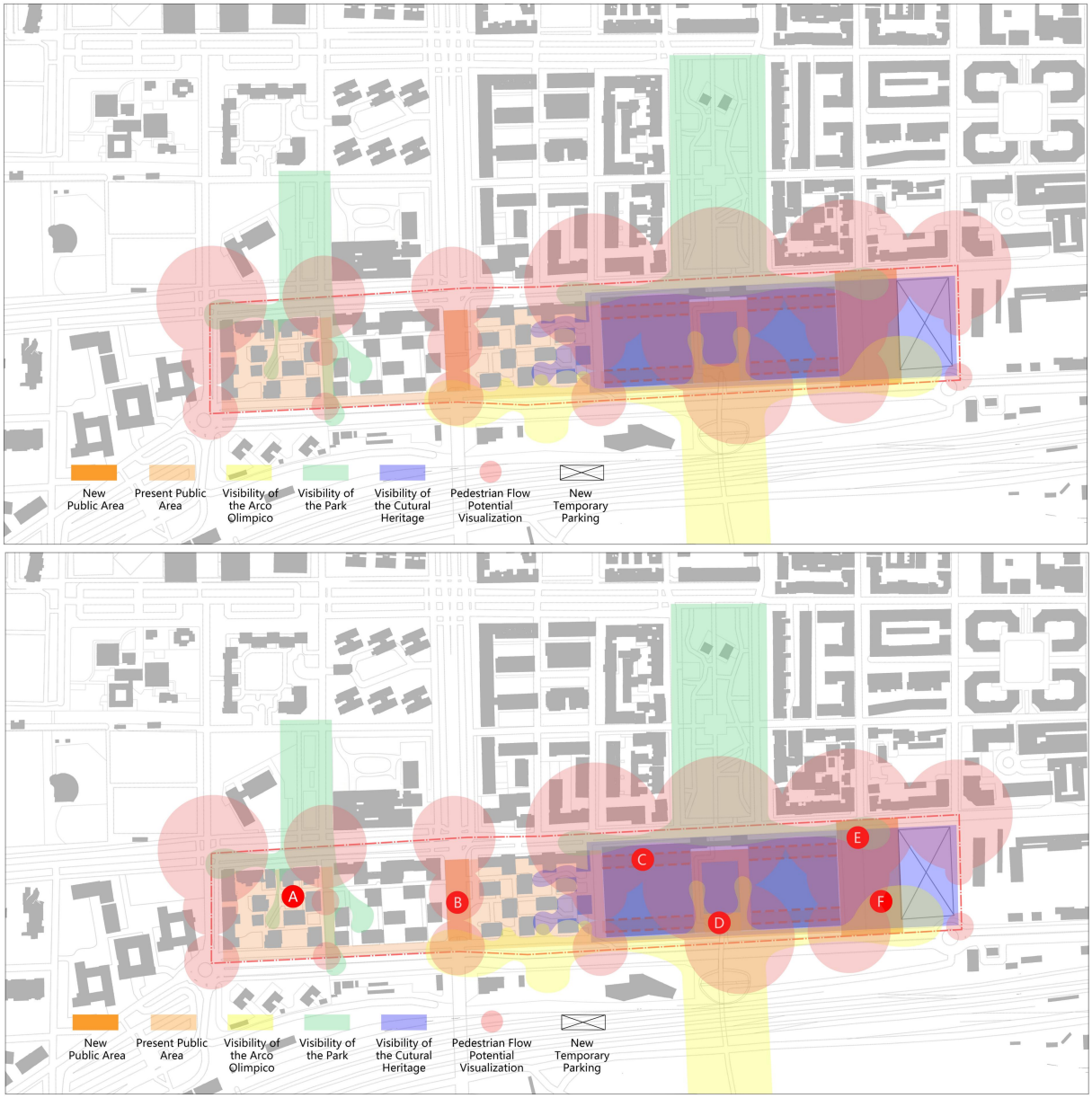


Figure 7-7 Comprehensive Analysis

Source: Author's own drawing

(1) Node A

This study selected Node A in the southern part of the site as a priority intervention point, primarily based on a comprehensive evaluation of its locational characteristics, spatial attributes, and pedestrian flow potential.

First, this node belongs to the public space and is located within the visible range of the park, possessing high potential for spatial quality enhancement. Its form is a rectangular plaza of appropriate scale. Compared to the parking area along the western street and the narrow passageway to the north, it exhibits a clearer sense of place and renovation feasibility, facilitating the implantation of temporary functional facilities without interference from traffic

flow lines. Preliminary judgment indicates that the area where Node A is located is suitable for selection as an intervention node for renovation design.

Second, this node demonstrates a good balance between publicity and privacy: on one hand, it adjoins a residential street and intersection, with relatively high pedestrian flow in the surrounding area, providing a foundational condition for attracting crowd gatherings; on the other hand, the node itself is enclosed by social housing and maintains a certain distance from the city's main arterial roads, resulting in a relatively quiet internal environment that is not easily traversed, thereby effectively avoiding excessive exposure that could interfere with the privacy of the residential area (Figure 7-8). This spatial characteristic is particularly suitable for accommodating functional types that require both social vitality and environmental tranquility, such as social service functions or ecological park functions.

The space syntax analysis in Figure 6-27 provides quantitative support for this judgment: both the integration and choice values of this node are at moderate levels, while the values of the surrounding streets are significantly higher, indicating that the node itself is not a primary circulation path but is easily influenced by radiation from adjacent high-activity areas. This result confirms its positioning as a "secondary gathering point"—capable of benefiting from surrounding pedestrian flow while maintaining a relatively independent and controllable usage atmosphere.



Figure 7-8 Field Analysis of Node A

Source: Author's own drawing（Based on Google Earth imagery）

Notably, other spatial nodes within the site also possess renovation potential. For instance, Node B, in terms of scale and openness, is more suitable for implementing temporary strategies centered on ecological experience. After comprehensive comparison, this study ultimately determined that Node A demonstrates superior compatibility with social service-oriented temporary strategies in terms of spatial attributes, usage potential, and social function matching, and was therefore designated as the priority implementation area.

Simultaneously, this selection also positions Node A appropriately within the "Living Zone" of the core functional zoning.

(2) Node B

First, a portion of Node B lies within the visible range of the Olympic Bridge and belongs to the public space, possessing overall high potential for spatial quality enhancement. Additionally, its form constitutes a rectangular plaza of appropriate scale, with spatial dimensions suitable for usage. Preliminary judgment indicates that Node B, located in the central area of the residential zone, is suitable for selection as an intervention node for renovation design.

Second, specifically, this node is situated in the vacant land of a mixed office-residential park, with sparse vegetation and greening in the surrounding area, and is distant from the city's main residential streets, resulting in a spatial atmosphere that leans toward tranquility (Figure 7-9). The site was originally planned as a park but is currently used as a temporary parking lot. This has resulted in its potential for crowd gathering being inferior to that of Node A, yet it is easily traversed, while the pedestrian flow potential of the node space remains high. Therefore, it is suitable for specific activity-oriented functions, such as ecological park or public service functions. This approach not only leverages the substantial pedestrian flow but also enhances its gathering potential, avoiding spatial waste.

The space syntax analysis in Figure 6-27 provides quantitative support for this judgment: the integration value of this node is relatively high, while the choice value is slightly lower but still at an above-average level. This indicates that its inherent capacity for crowd gathering is actually high (higher than Node A), but has been constrained by its current function as a temporary parking lot—overall supporting the aforementioned judgment.

Due to the suitability of its spatial scale and location, coupled with evidence from the original park planning, after comprehensive consideration, this study ultimately determined that Node B is highly suitable as an object for renovation intervention and is particularly well-suited for park-oriented temporary strategy implementation. Simultaneously, this selection also positions Node B appropriately within the "Transitional Zone" of the core functional zoning.



Figure 7-9 Field Analysis of Node B

Source: Author's own drawing（Based on Google Earth imagery）

(3) Node C

First, this node is entirely located within the arcade of the Ex-MOI building, belonging to the cultural heritage and simultaneously constituting part of the public space, possessing overall high potential for spatial quality enhancement. Additionally, it connects to the residential area and exhibits high pedestrian flow potential. Although its form is a narrow corridor-shaped passage, the spatial scale is relatively large and equally suitable for usage, with the linear space being particularly well-suited for the arrangement of cultural functions (such as exhibition halls). Therefore, preliminary judgment indicates that Node C in the arcade area is suitable for selection as an intervention node for renovation design.

Second, specifically, this node is situated adjacent to the residential area on its western side and indirectly connects the main residential street and arterial road (Figure 7-10), resulting in high potential for crowd gathering at this node. Simultaneously, due to its proximity to the park and central axis, the pedestrian flow potential in the surrounding area of the node space is also substantial. Therefore, this space is highly suitable for lively and active public functions, such as cultural, commercial, or recreational functions.

The space syntax analysis in Figure 6-27 provides quantitative support for this judgment: the integration value of this node is relatively high, but the choice value is slightly below average. This indicates that the node is a "destination-type" space that is easily accessible and conducive to lingering, yet rarely traversed — meaning it is not a necessary passage for pedestrian flow, but possesses high capacity for crowd gathering.

After comprehensive consideration, this study ultimately determined that Node C is highly suitable as an object for renovation intervention and is particularly well-suited for culture-oriented temporary strategy implementation. Simultaneously, this selection also positions Node C appropriately within the "Historical and Cultural Zone" of the core

functional zoning. Based on the spatial scale and cultural attributes, it can be judged as suitable for serving as an exhibition and experience area.

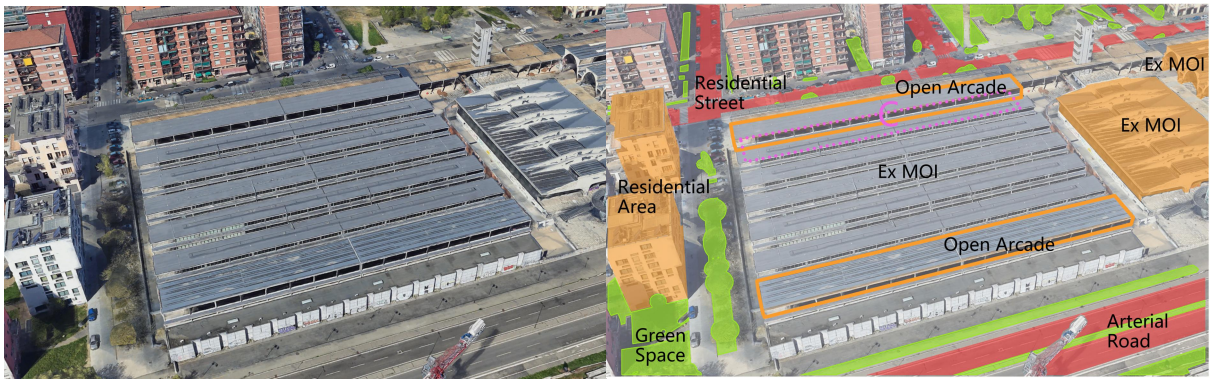


Figure 7-10 Field Analysis of Node C

Source: Author's own drawing（Based on Google Earth imagery）

(4) Node D

First, this node belongs to the newly added public space after adjustment, entirely located within the Ex-MOI building area, constituting part of the cultural heritage while being adjacent to the Olympic Bridge, possessing extremely high potential for spatial quality enhancement. The plaza-shaped spatial scale is also highly suitable for usage. Preliminary judgment indicates that the area where Node D is located is suitable for selection as an intervention node for renovation design.

Second, specifically, this node is situated in the outdoor space enclosed inward by the MOI building complex and directly connects to the Olympic Bridge (Arco Olimpico) (Figure 7-11), with a spatial atmosphere leaning toward vibrancy. Due to its location on the central axis of the cultural heritage site, it exhibits high potential for pedestrian gathering, making it suitable for implanting leisure activities, commercial, or historical-cultural functions.

The space syntax analysis in Figure 6-27 provides quantitative support for this judgment: both the integration and choice values of this node are relatively high. This indicates that the node is a space that is easily accessible and conducive to lingering, while also being easily traversed.

However, since commercial or historical-cultural functions have more suitable nodes available (such as Node C), after comprehensive consideration, this study ultimately determined that Node D is highly suitable as an object for renovation intervention and is particularly well-suited for activity and leisure-oriented temporary strategy implementation. Simultaneously, this selection also positions Node D appropriately within the "Historical and Cultural Zone" of the core functional zoning. Due to the open space and vibrant site elements,

this node is suitable for arranging leisure and entertainment functions.



Figure 7-11 Field Analysis of Node D

Source: Author's own drawing（Based on Google Earth imagery）

(5) Nodes E/F

First, both Nodes E and F are adjacent to the Ex-MOI building, located within the visible range of the cultural heritage site, while simultaneously situated within the visible ranges of the park and the Olympic Bridge respectively. Combined with their public space attributes, this endows them with extremely high potential for spatial quality enhancement. Additionally, the large plaza-shaped spatial scale is also highly suitable for usage. Preliminary judgment indicates that the area north of the cultural heritage site is suitable for selection as an intervention node for renovation design.

Second, specifically, these nodes are not only proximate to the cultural heritage site but also directly connect to the main residential street and arterial road, resulting in high potential for pedestrian gathering. Furthermore, their proximity to the park, Olympic Bridge, and the newly planned temporary parking lot (Figure 7-12) makes them highly suitable for implanting functions that "require" or "can effectively utilize" high pedestrian flow and landscape elements, such as commercial or park-oriented functions.

The space syntax analysis in Figure 6-27 provides quantitative support for this judgment: both the integration and choice values of these nodes are relatively high. This indicates that the nodes are spaces that are easily accessible and conducive to lingering, while also being easily traversed.

To more prominently emphasize the "park" theme, this study ultimately determined that both Nodes E and F are suitable as objects for renovation intervention. Specifically, Node E is suitable for park-oriented temporary strategy implementation, facilitating visual connection with the large park; whereas Node F, compared to other areas within the site, possesses stronger public attributes and more expansive space, making it suitable for economy-oriented temporary strategy implementation.

Simultaneously, this selection also positions Nodes E/F appropriately within the "Historical and Cultural Zone" of the core functional zoning. Due to their proximity to the cultural heritage site, parking lot, and bus stops, these nodes are suitable for arranging commercial functions.



Figure 7-12 Field Analysis of Node E/F

Source: Author's own drawing（Based on Google Earth imagery）

7.2.4 Macro Planning Summary

(1) Design Content of Each Node

Based on the above analysis of macro design, the design framework and design content are summarized according to the complete methodological chain of "type identification—problem diagnosis—intervention type—regeneration strategy—development path" as follows (Figure 7-13):

The problem of Node A falls under the social service category. According to Prototype 1 "Micro-Service Unit Type" and Prototype 3 "Light Structure for Information Exchange Type" in Table 5-4 of Section 5.3, both are suitable types of temporary strategies. This is because small-scale and lightweight installations are more suitable for residential areas, minimizing construction noise and waste as much as possible, avoiding disruption to the quiet atmosphere of the residential area, while being convenient for mobility, allowing deployment and use in different spaces within the community. Therefore, they are also suitable for the subsequent development model of "relay transmission mode."

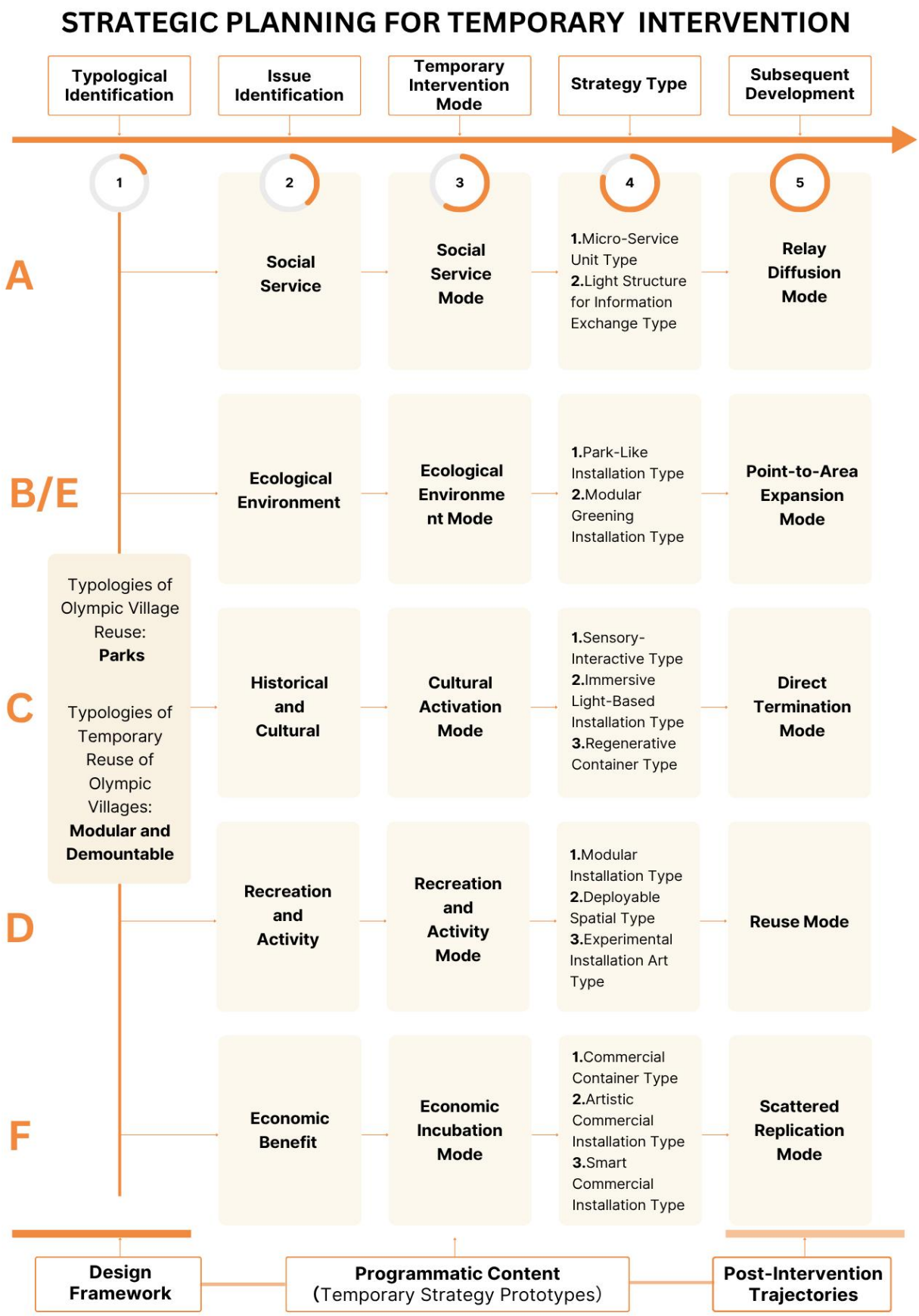


Figure 7-13 Design Information Summary

Source: Author's own drawing

The problems of Nodes B and E fall under the ecological environment category. According to Prototype 1 "Park-Like Installation Type" and Prototype 2 "Modular Greening Installation Type" in Table 5-6 of Section 5.5, both are suitable types of temporary strategies. This is because the spaces of these nodes are relatively large, while Prototype 3 belongs to a single-point installation type strategy rather than a planar installation type, which is not very suitable for large-scale spaces and might at most serve only as decorative elements, hence not prioritized for consideration. Simultaneously, this prototype is suitable for piloting on unbuilt park internal land, helping to form the atmosphere of the future overall park. In view of this, this node is suitable for selecting the subsequent development model of "from point to plane."

The problem of Node C falls under the cultural activation category. According to Prototype 1 "Sensory-Interactive Type," Prototype 2 "Immersive Light-Based Installation Type," and Prototype 4 "Regenerative Container Type" in Table 5-2 of Section 5.1, all three are suitable types of temporary strategies. The reason for not selecting Prototype 2 is that the narrow and elongated space is not suitable for arranging theater-like facilities, which could easily cause congestion. Due to involvement in temporary renovation within the building interior, which significantly impacts the current "strip out" engineering phase, the subsequent development model of "direct termination" was selected.

The problem of Node D falls under the activity and leisure category. According to Prototype 1 "Modular Installation Type," Prototype 2 "Deployable Spatial Type," and Prototype 4 "Experimental Installation Art Type" in Table 5-3 of Section 5.2, all three are suitable types of temporary strategies. The reason for not selecting Prototype 3 is that the space where Node D is located is an open plaza space, lacking suitable enclosed or semi-enclosed "abandoned spaces." Furthermore, since the facilities included in this strategy prototype are more scattered and diverse, it is possible to attempt material recycling after the temporary activities conclude, reusing them at other locations—namely, adopting the "circular utilization" subsequent development model.

Node F falls under the economic incubation category. According to the three prototypes in Table 5-5 of Section 5.4, all three prototypes are suitable types of temporary strategies. This is because the spatial scale of this node is relatively large, and all three prototypes are unit-type installation types, offering considerable room for implementation. Moreover, since the installations possess a certain degree of flexibility, it is possible to attempt subsequent development following the "scattered replication" model.

(2) Overall Functional Zoning Planning

As shown in Figure 7-14, the macro planning first readjusted the existing temporary planning, not only releasing the northern area from its enclosed state but also optimizing the unreasonable temporary usage conditions within Lot III. Specifically, by removing temporary obstacles in the enclosed areas and relocating the temporary parking lot originally set up in Lot III to the northernmost end of the site, more open space was liberated for public activities.

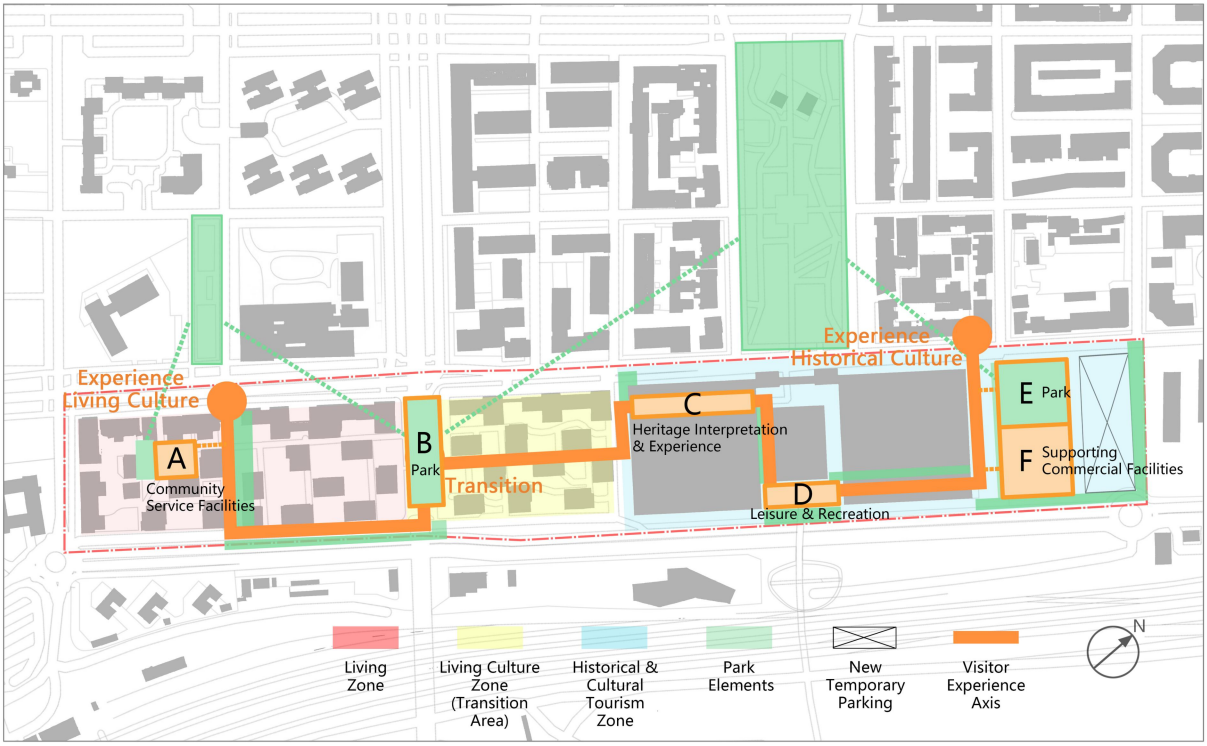


Figure 7-14 Overall Functional Zoning Plan

Source: Author's own drawing

Second, the design introduces "park" as the core theme, strengthening the park elements within the site and establishing visual and spatial continuity with the surrounding existing green space system, thereby forming an interconnected open space network that links internal and external areas. Based on this, the study divides the plot into three functional zones from north to south: the Historical and Cultural Tourism Zone, the Living Culture Zone (transition zone), and the Living Zone, which are organically connected by a north-south experience axis. This axis serves not only as the spatial organizational framework but also carries narrative logic—guiding visitors from an immersive experience of Olympic history and culture to a gradual perception of the Olympic Village and urban daily life, thereby constructing a complete tourism experience chain that progresses from "historical culture" to "living culture."

The specific positioning of each functional zone is as follows:

The Historical and Cultural Tourism Zone (northern section) primarily includes supporting commercial facilities, leisure and entertainment, and historical and cultural exhibitions, aiming to create a tourism experience space that combines cultural depth with commercial vitality;

The Living Culture Zone (middle section, serving as a transition zone) centers on an ecological park, integrating leisure, social interaction, and light activity functions, achieving a natural translation from cultural atmosphere to living scenarios;

The Living Zone (southern section) focuses on community service functions, establishing convenient service points and public facilities, strengthening the site's daily support role for local residents.

The overall layout not only responds to the strategic orientation of regional cultural tourism development but also takes into account the practical needs of community life, achieving bidirectional integration of cultural value and living functions.

7.3 Discussion on Specific Renovation Plans

Based on the research findings presented earlier, this chapter proposes a temporary spatial renewal scheme for the site. The content covers the overall design framework and specific designs for each functional node (cultural, social service, commercial, ecological, and activity types), systematically presenting the transformation process from strategic conception to spatial form.

7.3.1 Overall Design

This design adopts "Torino Verde Park" as the design theme, "modularity and detachability" as the core temporary design strategy, and "Historical and Cultural Tourism Zone" and "Living Zone" as the core functional divisions. It aims to systematically address the existing spatial issues of the former Olympic Village site through low-cost, highly flexible temporary intervention strategies. The specific objectives focus on two levels: first, addressing the spatial idleness caused by unreasonable temporary planning and usage—some areas, despite possessing usage potential, remain in a state of "passive vacancy" due to unreasonable temporary planning; second, responding to the structural deficiency of the current greening system that "emphasizes form over function," where a large amount of green space exists merely as visual landscape, lacking accessibility, interactivity, and ecological service efficiency, resulting in the substantive "waste" of valuable green resources.

(1) Master Plan Design

To achieve the above objectives, the design first introduces four types of functions that highly align with the needs of surrounding residents — including social services, culture, activities, and commerce — and customizes corresponding temporary spatial strategies for each. These functions are not implanted in isolation but are organically integrated with the existing environment through temporal planning (such as dual-time usage), modular facilities, and low-impact construction methods. Second, the existing greening system undergoes ecology-oriented temporary optimization: optimizing green configuration, increasing the variety of trees and shrubs, and improving the relationship between greening and public spaces, transforming green areas from "visible but inaccessible" ornamental objects into ecological public spaces that are "accessible, explorable, and experiential."

In terms of spatial structure, the scheme adopts a dual-S-shaped circulation layout as the overall organizational framework (Figure 7-15). Two meandering and intersecting red-paved pathways run through the entire site from south to north, forming a continuous and rhythmically varied pedestrian system that suggests the presence of a Visitor Experience Axis. This layout not only effectively connects various functional nodes and guides natural pedestrian flow but also softens the site's original linear texture through its curvilinear form, creating a more exploratory and linger-worthy public experience.

The design fully respects the site's historical layering and current construction status: in the cultural heritage building complex area (primarily located in Lotto II), the scheme skillfully utilizes the original open arcades as design spaces, implanting lightweight exhibition installations and container facilities to activate the contemporary usage value of historical spaces; in other areas, it strictly avoids the heritage entities and ongoing construction zones, ensuring that all temporary intervention measures remain non-intrusive and reversible, avoiding interference with existing structures and construction processes.

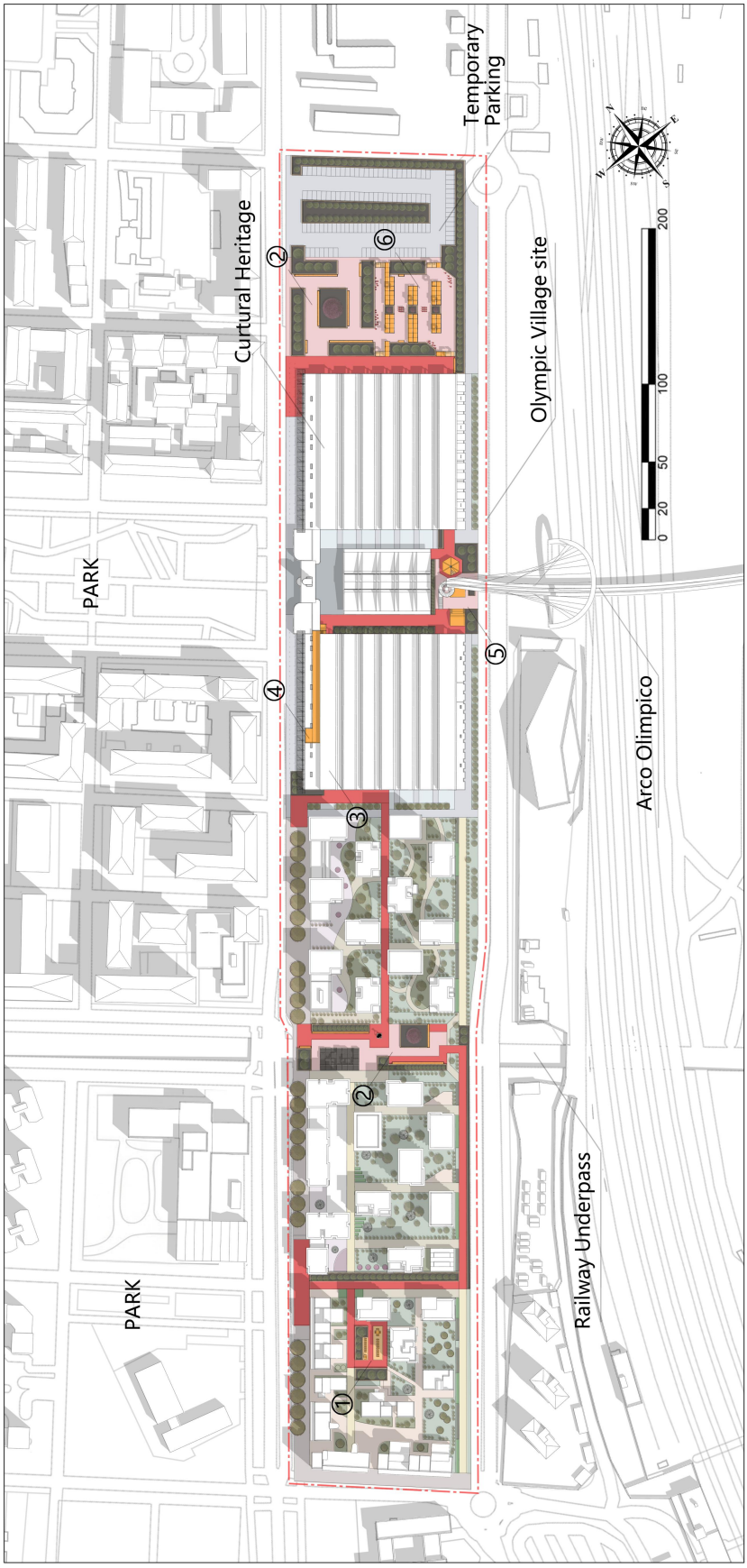


Figure 7-15 Master Plan Design

Source: Author's own drawing

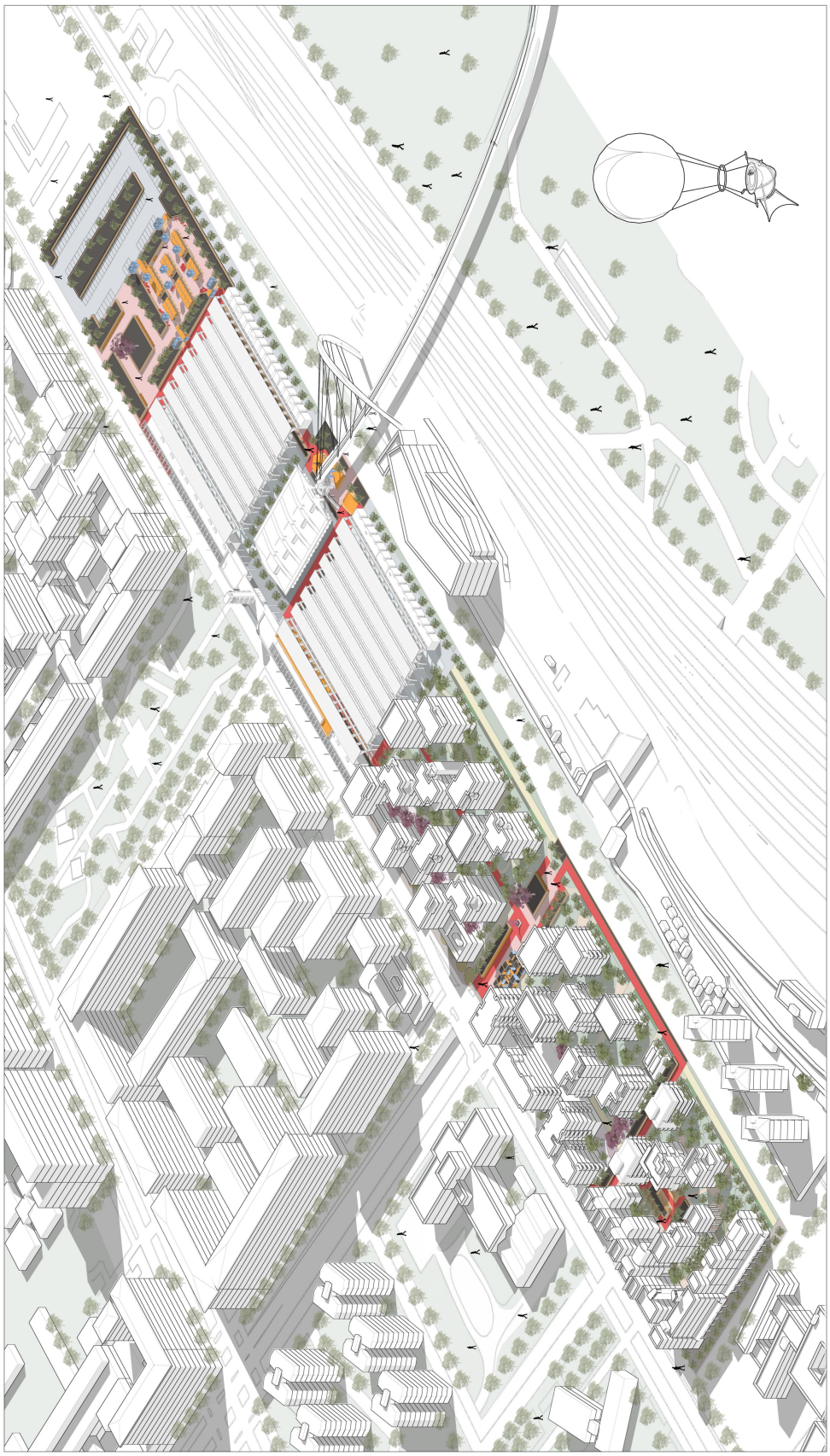


Figure 7-16 Aerial View

Source: Author's own drawing

(2) Overall Functional Zoning Design

The main functional nodes are concentrated in four blocks: Lotto V, Lotto VIII, Lotto II, and Lotto I, with the core functional zones divided into the Historical and Cultural Tourism Zone, the Living Culture Zone (transition zone), and the Living Zone. By creating a spatial axis that runs through all three zones, an experiential circulation is formed that progresses "from historical culture to daily life"—visitors can sequentially immerse themselves in the perception of Olympic history and culture, the interpretation of Olympic Village heritage, and ultimately integrate into the daily scenes of contemporary urban life, thereby constructing a richly layered and coherently complete overall tourism experience. The overall layout thus presents a clear "point-line" network structure (Figure 7-17).

In the Historical and Cultural Tourism Zone:

Node C (Cultural Type): Focusing on historical and cultural display and immersive experiences, it is planned to include functions such as an Olympic heritage thematic exhibition, industrial culture exhibition, and AR-enhanced reality historical experience pavilion.

Node D (Activity Type): Centered on leisure and entertainment, it plans a temporary art theater for hosting small concerts, historical narrative performances, and documentary screenings.

Node E (Ecological Type): By optimizing plant configuration and adding accessible green spaces, it enhances the area's ecological service efficiency and strengthens public accessibility and recreational functions.

Node F (Commercial Type): Providing supporting commercial services, such as establishing a temporary market for Olympic-themed cultural and creative products, enhancing visitor consumption experience and local cultural identity.

Combined with the analysis of pedestrian flow potential in Section 6.3.1 and the post-renovation pedestrian flow prediction results shown in Figure 7-5, the main entrance and ticketing area (purple areas in Figure 7-17) are set up at key locations in this zone to optimize visitor circulation and improve operational efficiency.

In the Living Zone:

Node A is positioned as a social service function, primarily serving as a community service point, operating under a "dual-time system": providing composite functional spaces for community catering and open office during different time periods within a day, balancing residents' daily needs with spatial usage efficiency.

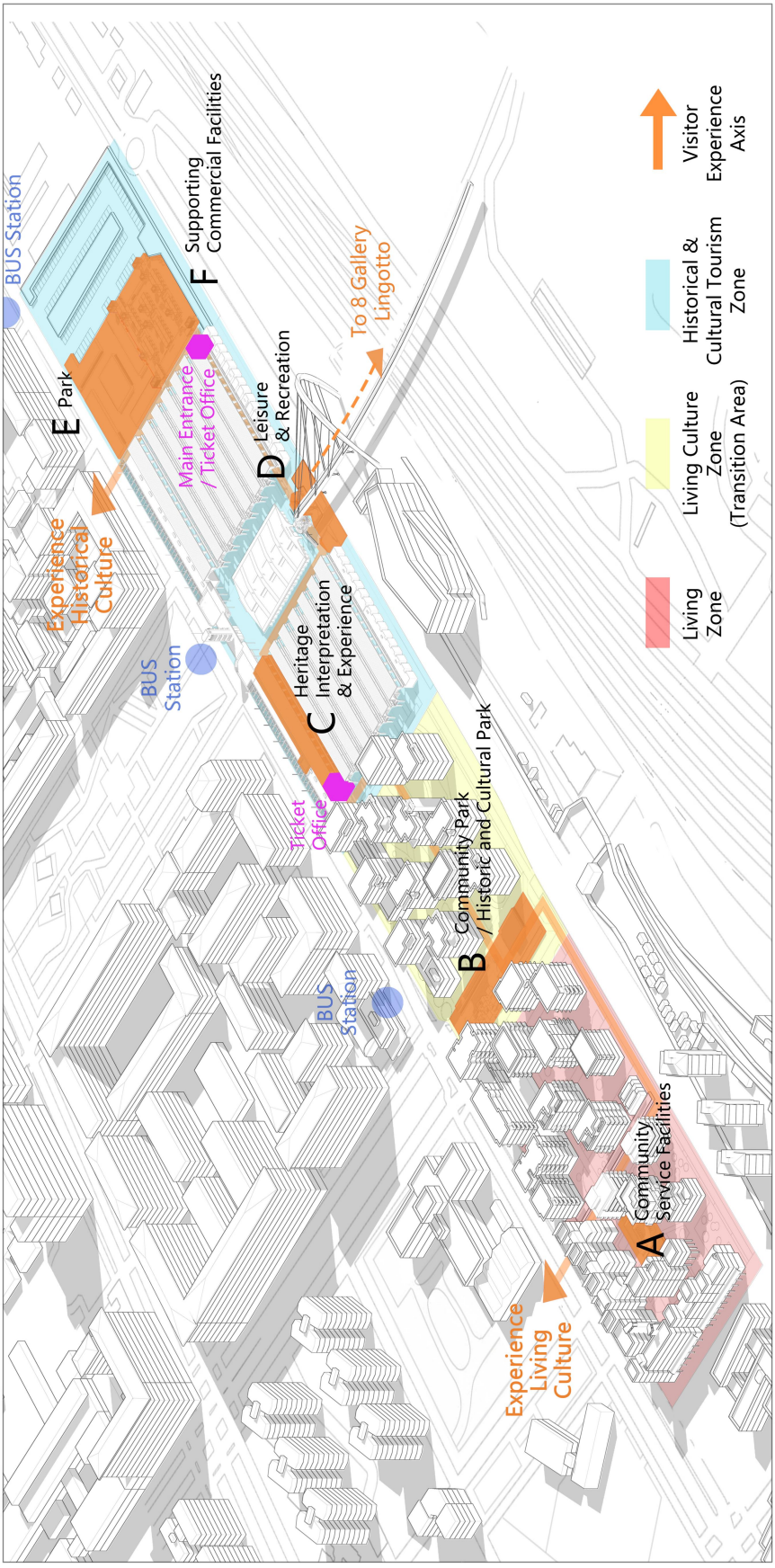


Figure 7-17 Functional Zoning Design

Source: Author's own drawing

In the Living-Culture Zone (Transition Zone):

Although Node B is also positioned as an ecological park, its core function lies in serving as a transitional space between the Historical and Cultural Tourism Zone and the Living Zone. At the spatial level, it softens the boundary between the two major functional zones through refined greening design; at the functional level, it possesses dual attributes of both a community park and a historical and cultural park — it can be equipped with community activity facilities to serve local residents while integrating cultural elements such as Olympic-themed digital guide devices, promoting the organic integration of historical memory and daily life.

7.3.2 Social Service Function Design

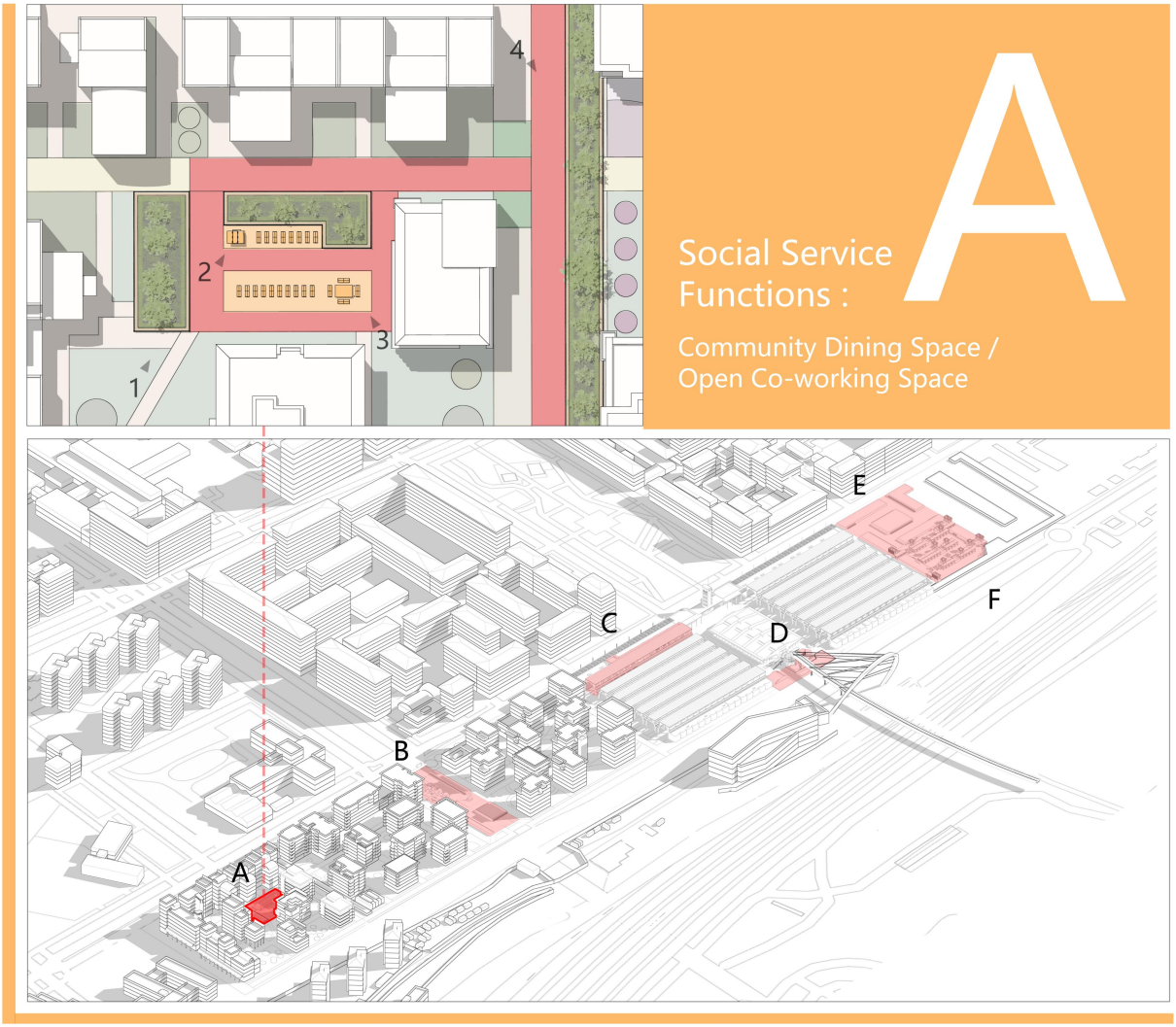


Figure 7-18(a) Comprehensive Analysis of Node A

Source: Author's own drawing

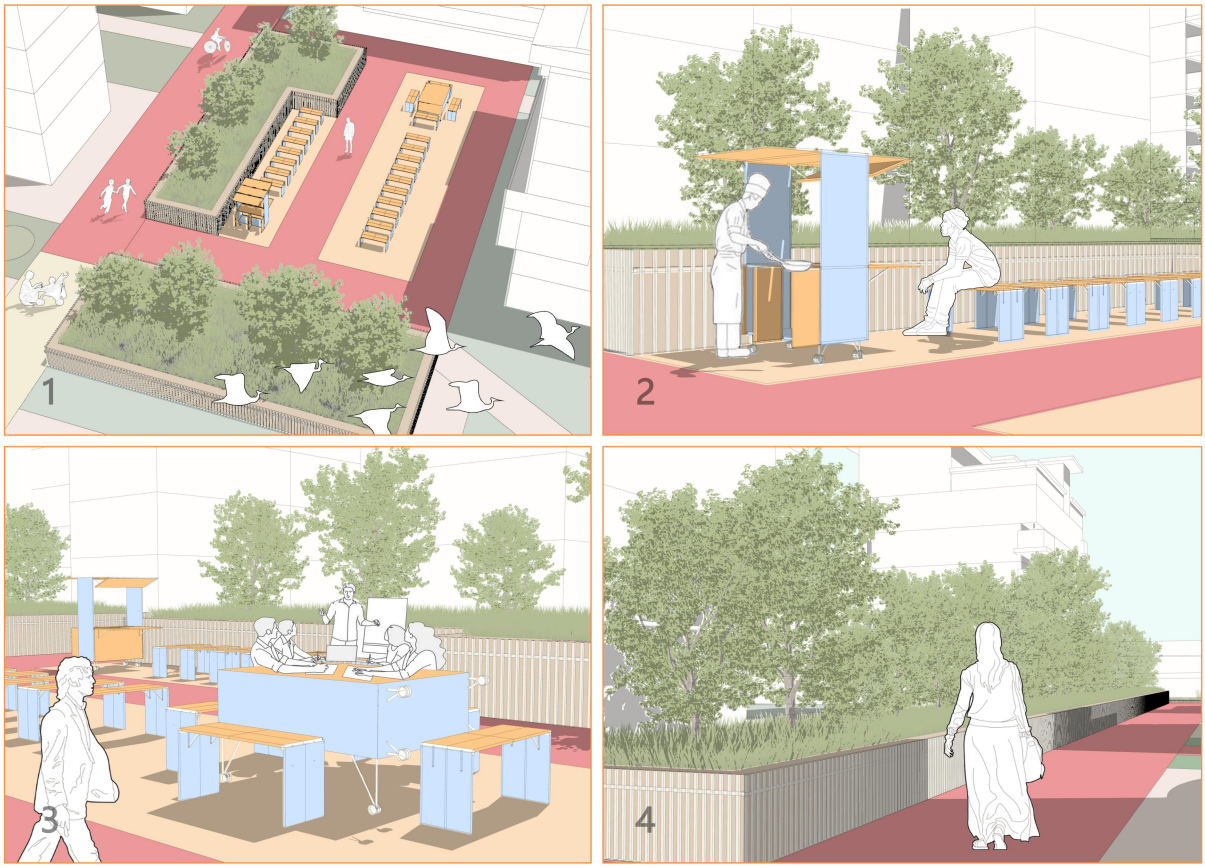


Figure 7-18(b) Comprehensive Analysis of Node A

Source: Author's own drawing

Node A is located in the Living Zone, positioned as a social service functional area, aiming to respond to the dual needs of surrounding communities for daily convenience and social belonging; simultaneously, it intuitively demonstrates to passing tourists how Olympic heritage can truly integrate into the urban fabric, becoming an organic and vibrant component of citizens' daily lives.

The design adopts a combined strategy of "mobile food trucks + foldable furniture" (Figure 7-18): mobile food trucks serve as the core service carrier, featuring high mobility and modular characteristics. During non-operational periods, they can depart from the site, completely releasing ground space; during peak hours or special events, their layout positions can be flexibly adjusted according to pedestrian flow changes. Foldable tables and chairs, along with storage units, further enhance spatial adaptability: during office hours, they unfold into standard workstation layouts; during dining hours, they rapidly reconfigure into enclosed table groupings; before closing at night, all furniture can be folded and stored in wall-mounted cabinets or integrated within mobile units, achieving efficient and tidy space management.

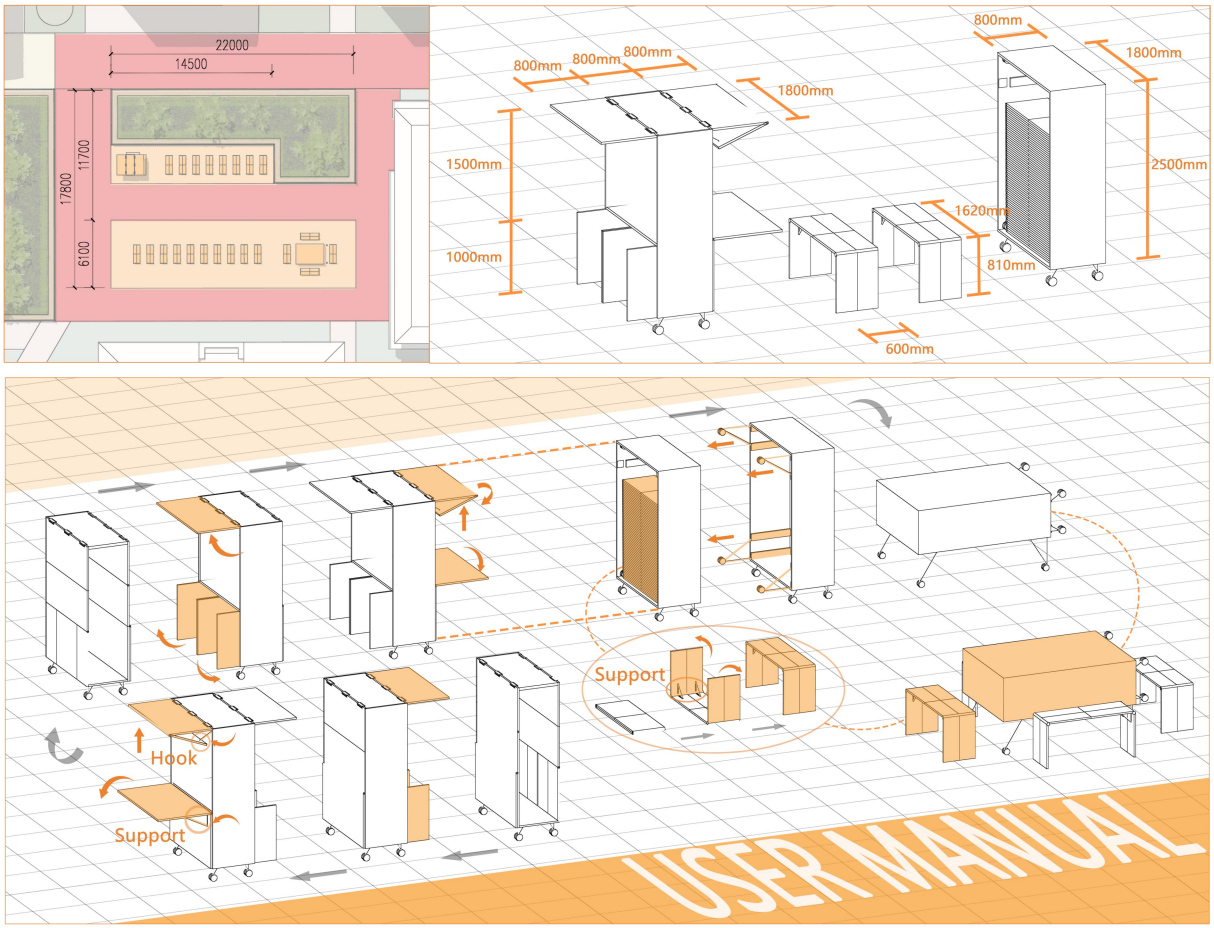


Figure 7-19 Introduction to Mobile Food Carts and Foldable Furniture

Source: Author's own drawing

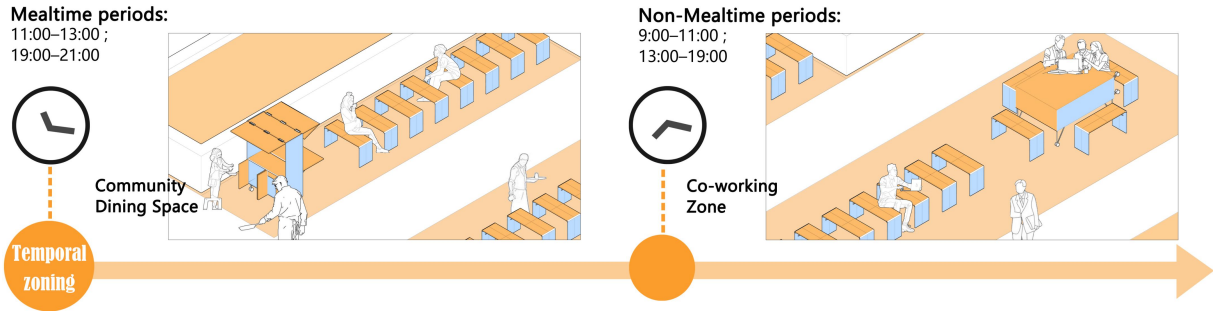


Figure 7-20 Introduction to Dual-Timing System

Source: Author's own drawing

This node design innovatively adopts a dual-time system strategy (temporal programming) (Figure 7-20), functioning as a community dining space for shared meals and neighborhood interaction during daily peak dining hours (11:00 – 13:00 and 19:00 – 21:00); during other periods, it seamlessly transforms into an open office area for freelancers or remote workers. This "one space, dual functions" model offers multiple advantages:

First, it aligns with the temporary nature of post-Olympic sites. Since the future use of the

site has not been fully determined, adopting highly flexible functional configurations can avoid over-investment and structural modifications, ensuring that intervention measures can be easily dismantled or relocated in the future, in accordance with the temporary urbanism principles of "light intervention and reversibility."

Second, it precisely matches genuine community needs. Research shows that surrounding residents lack suitable community space options and safe, free public spaces for work. This scheme responds to two high-frequency needs simultaneously through functional integration, achieving intensive provision of public services at a single node.

Finally, it promotes social integration and daily vitality. Dining hours attract families, elderly people, and children to gather, while office hours introduce young professionals and creative groups. Different demographics naturally intersect within the space, helping to break down social barriers and cultivate an inclusive community atmosphere.

7.3.3 Ecological Environment Function Design

Nodes B and E are located in the Living-Culture Zone (transition zone), positioned as ecological parks. Their core objective is to transform the original formalized and isolated greening system on the site into multifunctional green infrastructure that combines ecological efficiency with social value. Simultaneously, through the creation of this green space, visitors naturally perceive the transition from "historical culture" to "living culture" as they pass through, achieving a shift in experience mode from "passive observation" to "active participation."

The design of both nodes not only enhances the ecological service efficiency of green spaces but also endows them with social significance: serving as a mediating space connecting "historical culture" and "living culture," it guides visitors to naturally perceive the integration and transformation of these two cultural contexts during their passage. By installing interactive landscape installations and interactive ecological nodes, the park encourages public participation, enabling the historical memory carried by Olympic heritage to truly integrate into citizens' daily life scenarios, achieving dual regeneration of cultural value and public vitality.

At Node B, the design specifically incorporates a climbable facility composed of modular temporary blocks (Figure 7-22), aiming to provide children and adolescents with an outdoor activity space that combines playfulness, challenge, and natural perception. The facility is based on standardized, lightweight cubic units, forming an undulating three-dimensional configuration through stacking, offsetting, and interlocking, creating diverse climbing paths,

tunnel passages, and viewing platforms. Its structure employs a detachable steel-wood composite frame, covered with slip-resistant, permeable eco-friendly materials on the surface, ensuring safety while meeting the technical requirements of temporary interventions for low cost, easy assembly, and reversibility.

Particularly crucial is that the design covers the flat, non-climbable areas at the top of the facility with trample-resistant native turf, which not only effectively softens the architectural volume and reduces visual pressure but also ingeniously transforms the artificial structure into a micro-ecological patch. This treatment strategy directly responds to the node theme of "ecological park": on one hand, the introduction of greening enhances local microclimate regulation capabilities, significantly reducing surface temperature in summer; on the other hand, the turf area can also serve as a resting platform or small nature classroom, allowing children to observe insects, touch soil, and feel plant growth, thereby establishing intuitive cognition and emotional connection with nature during play.

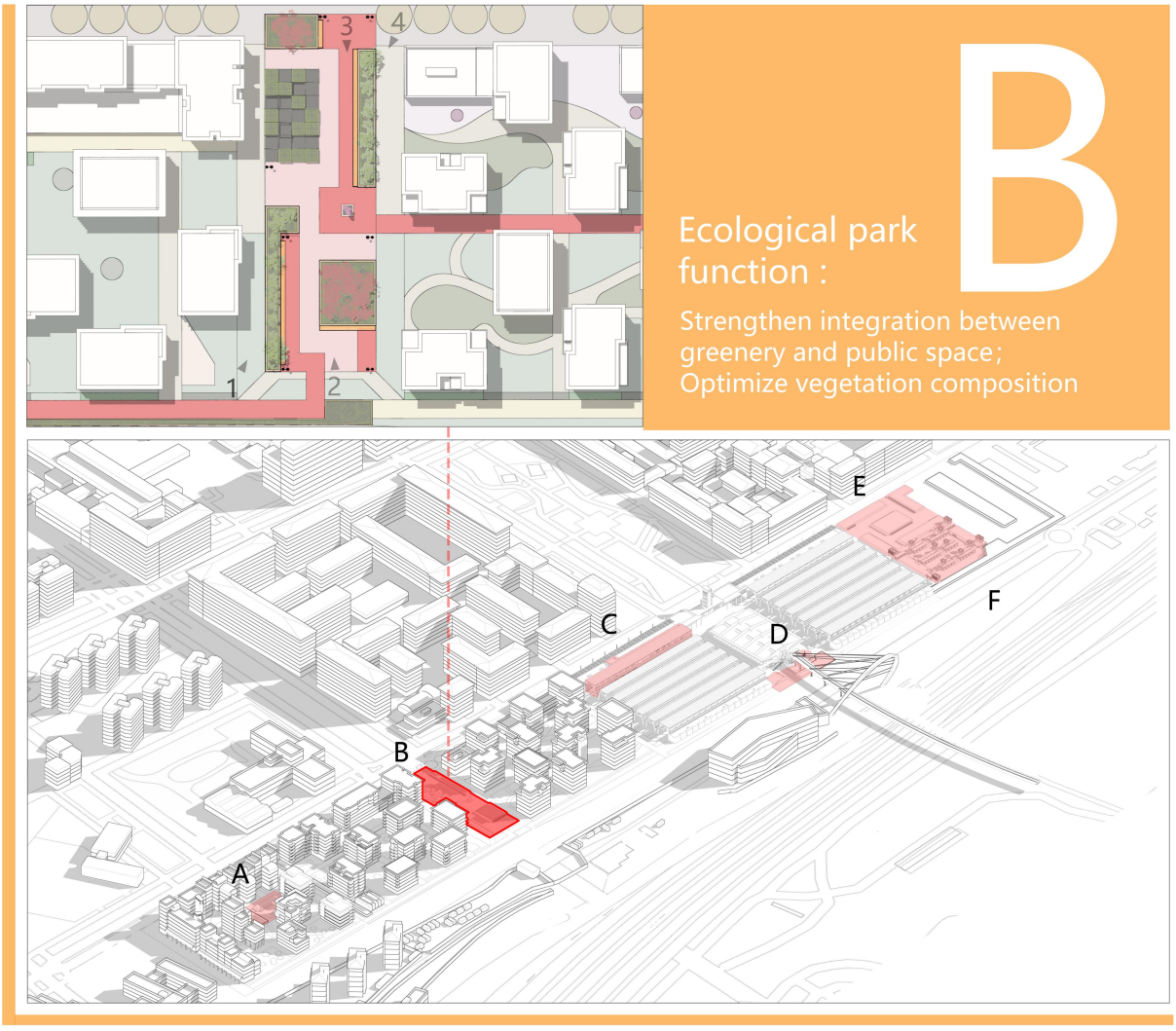


Figure 7-21(a) Comprehensive Analysis of Node B

Source: Author's own drawing

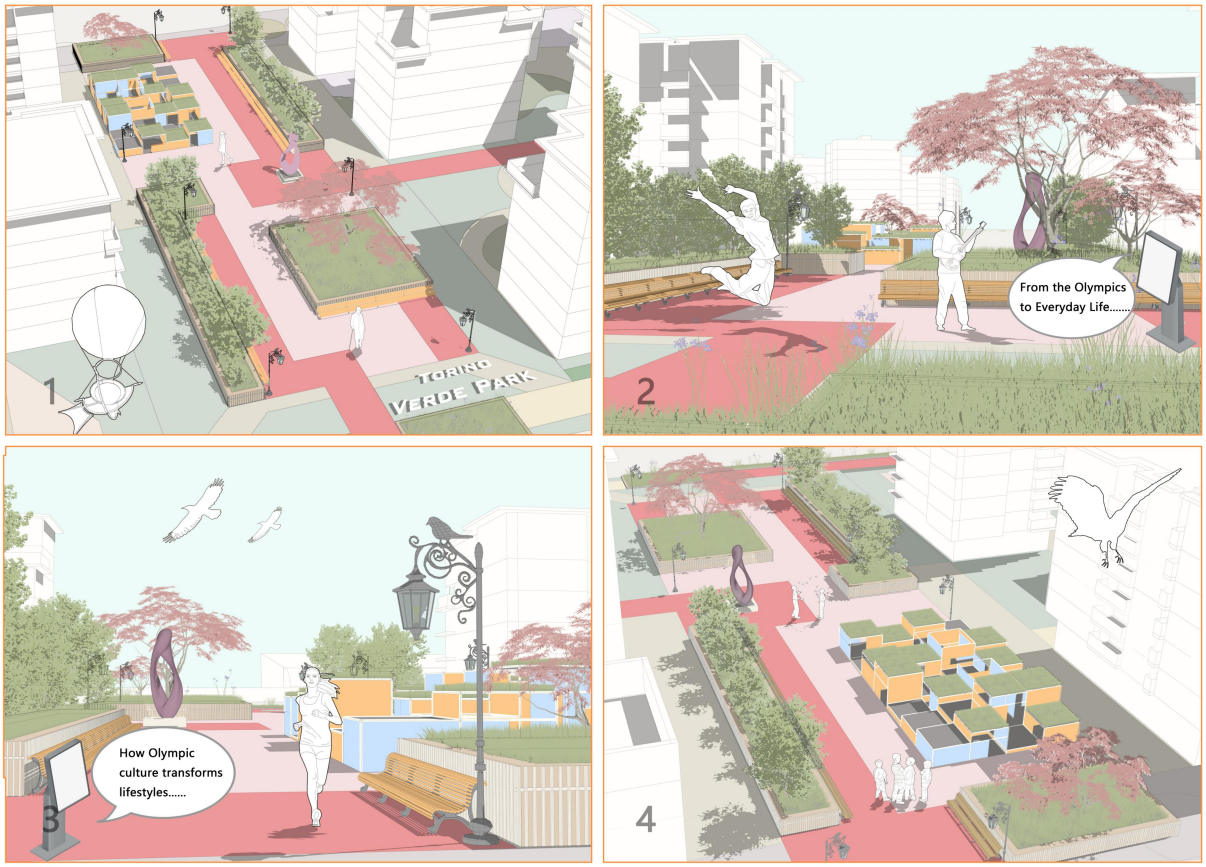


Figure 7-21(b) Comprehensive Analysis of Node B

Source: Author's own drawing

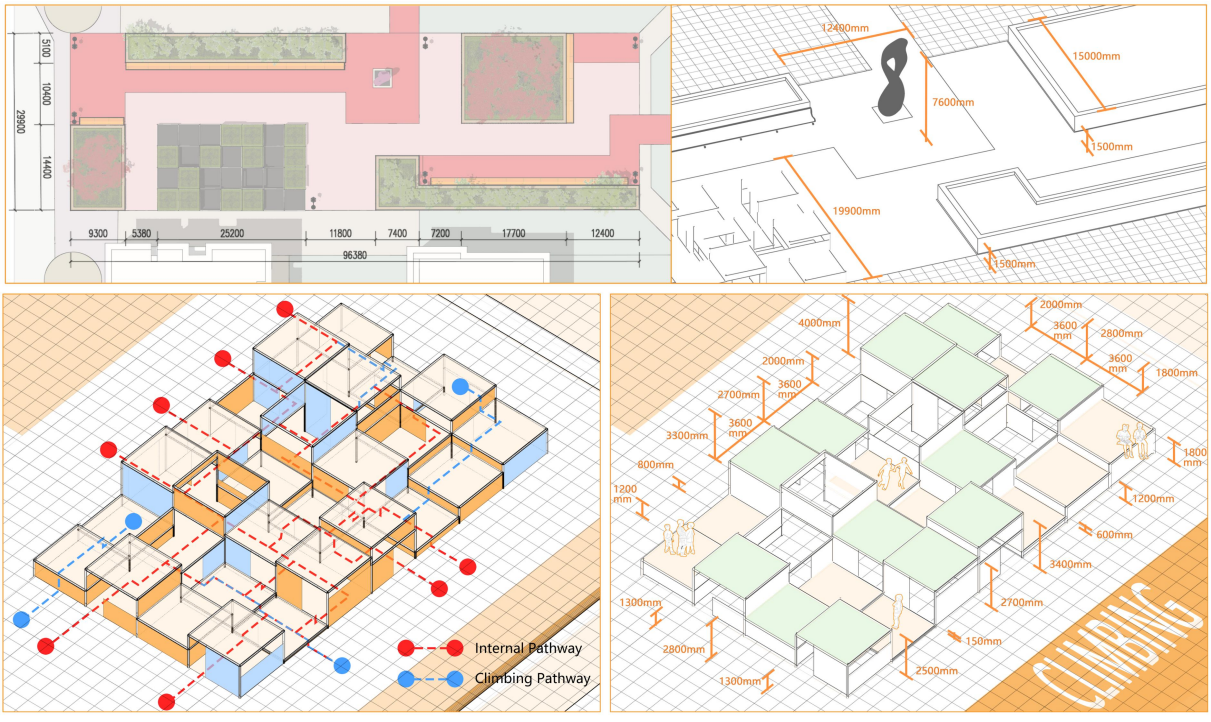


Figure 7-22 Introduction to Climbing Facilities

Source: Author's own drawing

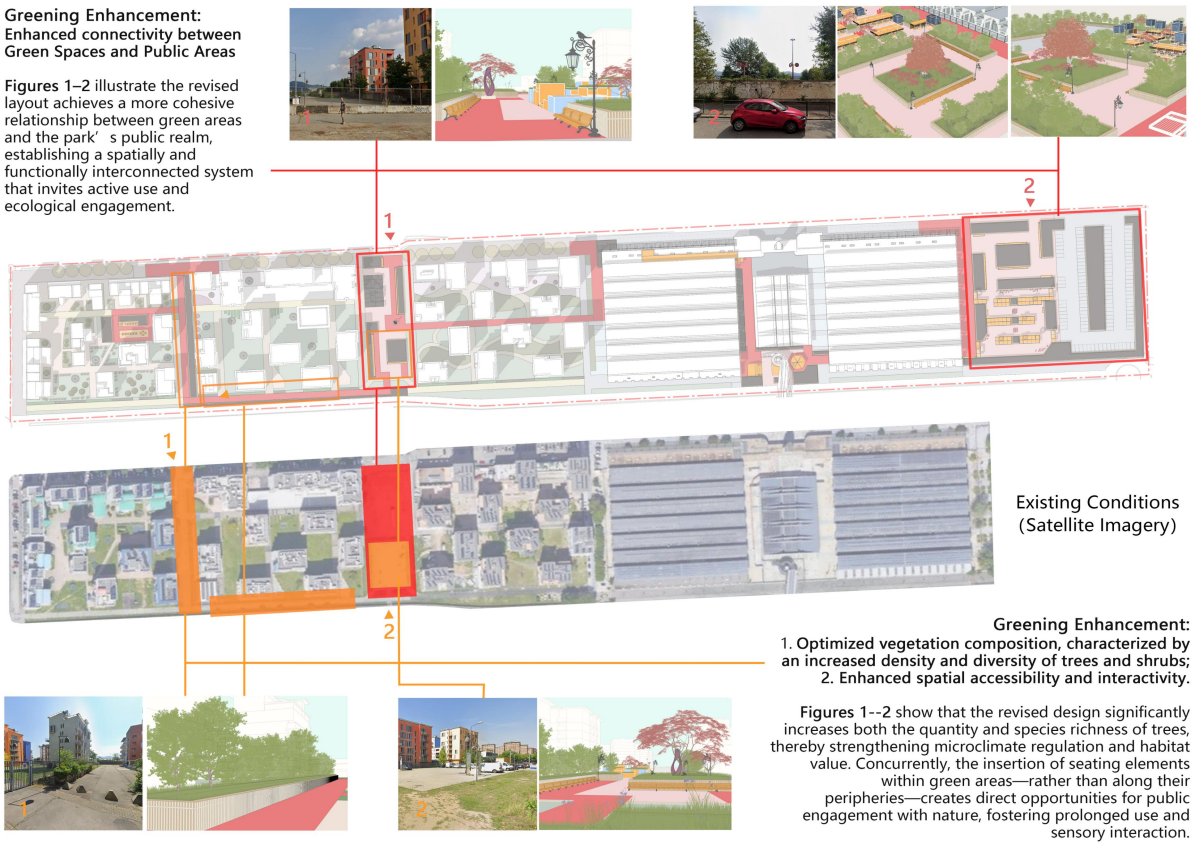


Figure 7-23 Comparison of Greening Adjustments Before and After

Source: Author's own drawing

Regarding the improvement of greening issues, the approach is primarily divided into two aspects (Figure 7-23):

First, strengthening the deep integration of greening with public spaces. In response to the common "enclosed but inaccessible" problem prevalent in traditional urban green spaces, the design reconstructs the space by organically embedding vegetation areas into pedestrian pathways, resting nodes, and small activity venues. This "boundary-removal" treatment transforms green spaces into truly accessible and interactive daily places, not only enhancing the public's frequency of contact with nature and quality of experience but also promoting the maintenance and vitality of green spaces through daily human use.

Second, systematically optimizing the plant configuration structure. While preserving the existing lawn framework, the design significantly increases the planting proportion and species diversity of trees and shrubs. This not only enriches the seasonal rhythm of the site visually but also achieves multiple ecological benefits functionally: tall trees provide effective shade and reduce ground surface temperature; dense shrub layers enhance dust retention and noise reduction capabilities; diverse plant combinations provide habitats and foraging

environments for insects, birds, and other small organisms, significantly enhancing local biodiversity.

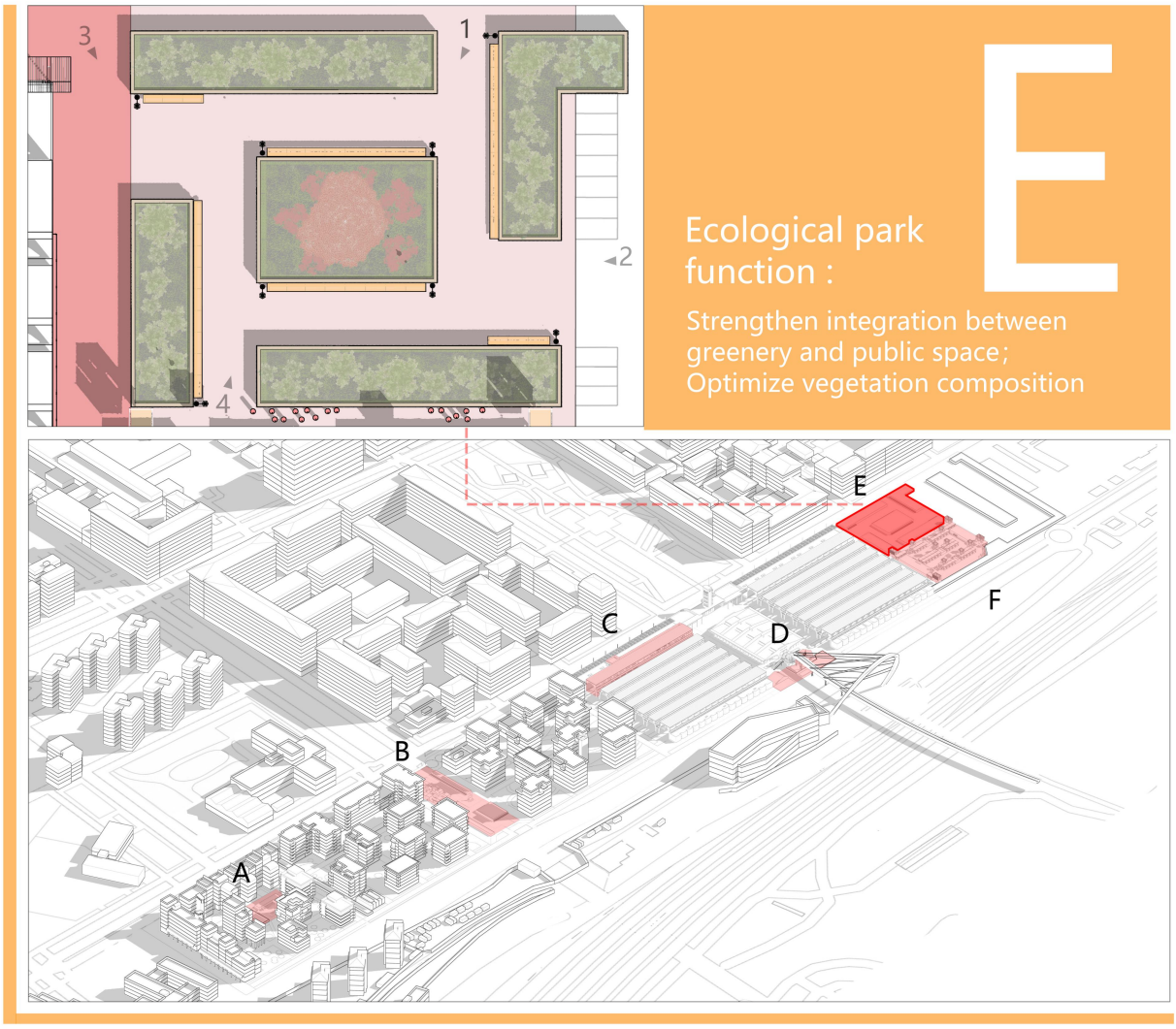


Figure 7-24(a) Comprehensive Analysis of Node E

Source: Author's own drawing

Node E is located at the northern end of the site, serving as an important intersection area connecting the temporary parking lot and temporary market (Node F) to the main road. Given that this location combines high pedestrian flow concentration with vehicle interference risks, the design does not adopt conventional hard-paved buffer zones but instead centers around a large red maple tree to construct a micro-ecological park with a tree pit as its core, serving as a key spatial mediator transitioning from the vehicular environment to the pedestrian commercial zone.



Figure 7-24(b) Comprehensive Analysis of Node E

Source: Author's own drawing

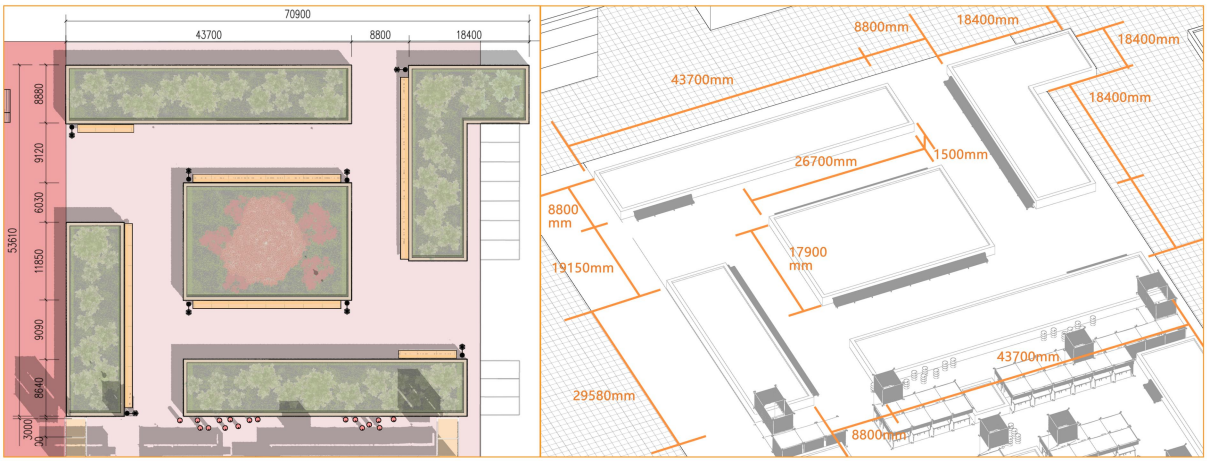


Figure 7-25 Introduction to Park Detail Scale

Source: Author's own drawing

This tree pit is not a traditional enclosed green island but an open, accessible, and multifunctional circular resting platform. Its edges are enclosed by low recycled wood benches, which not only define spatial boundaries but also provide spontaneous social opportunities for immediate seating; the interior of the tree pit retains the original soil and

adds shade-tolerant ground covers and seasonal bulb plants, forming a stable micro-ecosystem. Beneath the tree canopy forms a natural shaded area that effectively mitigates the heat island effect in summer and enhances pedestrian comfort; visually, the dense red foliage canopy becomes a landmark focal point when viewing the site from the main road, strengthening place identity.

7.3.4 Cultural Activation Function Design

Node C is located in the Historical and Cultural Zone, positioned as a historical exhibition area. Within the overall narrative framework of the "Torino Verde Park," the design ingeniously adopts shipping containers as spatial carriers, echoing the site's original industrial texture. Through modular combinations and flexible layouts, it constructs a culturally immersive exhibition environment that combines adaptability with narrative tension. Building upon this foundation, the exhibition curation approaches from two dimensions — historical memory and immersive experience — systematically organizing the regional industrial heritage lineage and guiding visitors to perceive the layering of time during their movement. This creates a multidimensional perceptual pathway connecting the past, present, and future, ensuring that history is not merely observed but experienced and perpetuated.

Specifically, there are two functional designs (Figure 7-27):

First, the "Olympic and Architectural Heritage Historical Exhibition" systematically organizes the site's pivotal role in the 2006 Turin Winter Olympics — from the functional positioning of the athletes' village and the construction logic of temporary facilities to the spatial transformations during the post-event transition period. The exhibition reconstructs the entire evolution process of the architectural complex from event service facilities to urban public spaces through historical photographs, engineering drawings, oral history videos, and physical archives. This section not only documents the spatial carriers of significant events but also reveals common issues in post-Olympic urban renewal, such as "functional discontinuity" and "memory loss," thereby providing historical references and reflective foundations for current temporary interventions.

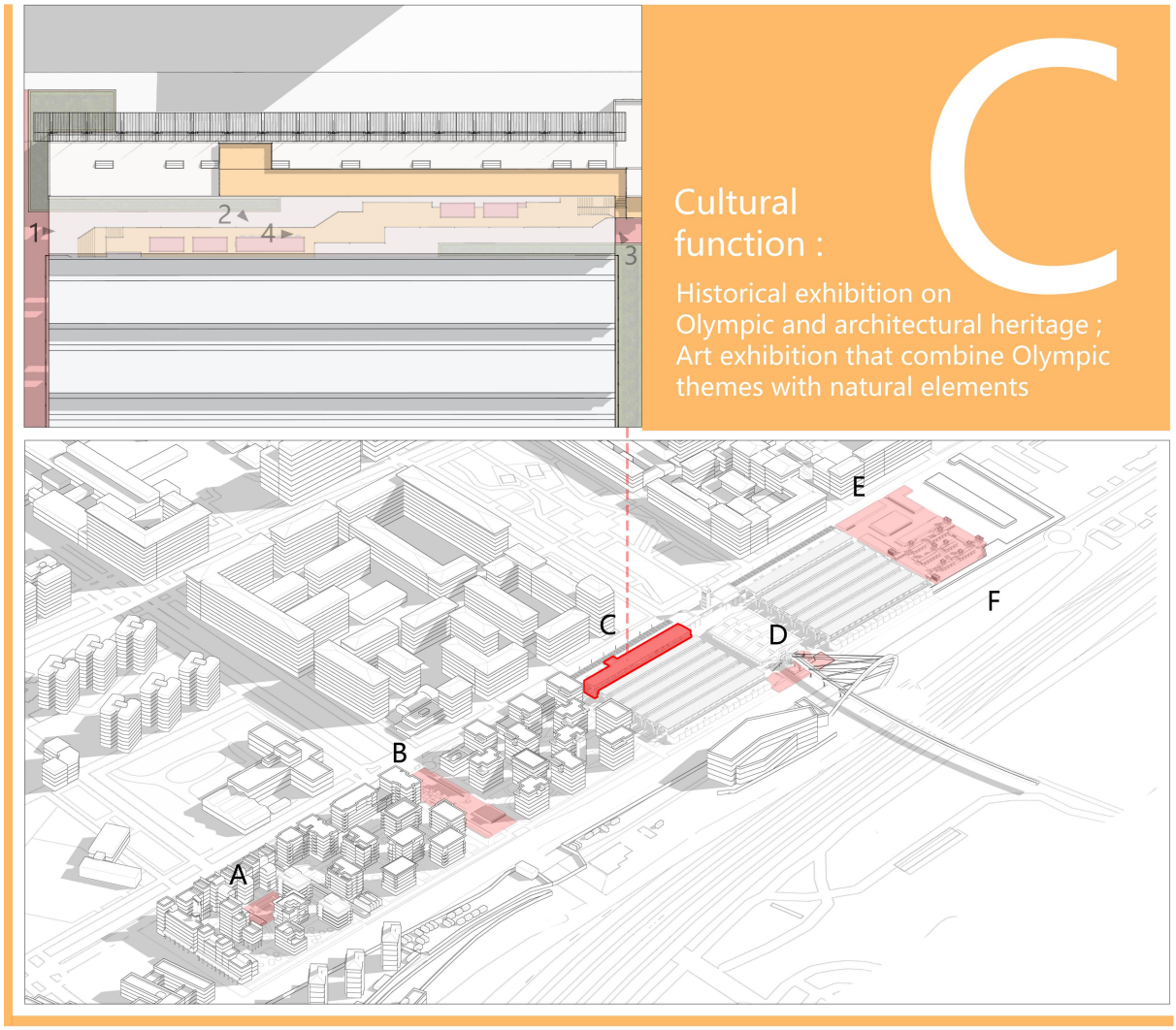


Figure 7-26(a) Comprehensive Analysis of Node C

Source: Author's own drawing

Second, the "Historical Experience Zone" primarily offers visitors opportunities for firsthand historical engagement. It encompasses various forms including installation art, immersive imagery, soundscapes, and interactive digital media. Examples include: a dynamic sculpture using snowmelt water circulation as a metaphor for the transience of events and the persistence of ecology; a light installation inspired by the overlap between torch spectrum and plant photosynthesis wavelengths; and an interactive experience using AR technology to allow visitors to "see" the running trajectories of past athletes among the tree canopies. These works are not mere decorations but critically, poetically, and participatorily re-examine the question "What constitutes true Olympic heritage?" — is it medals and venues, or the harmonious relationship between humans and nature, body and environment?

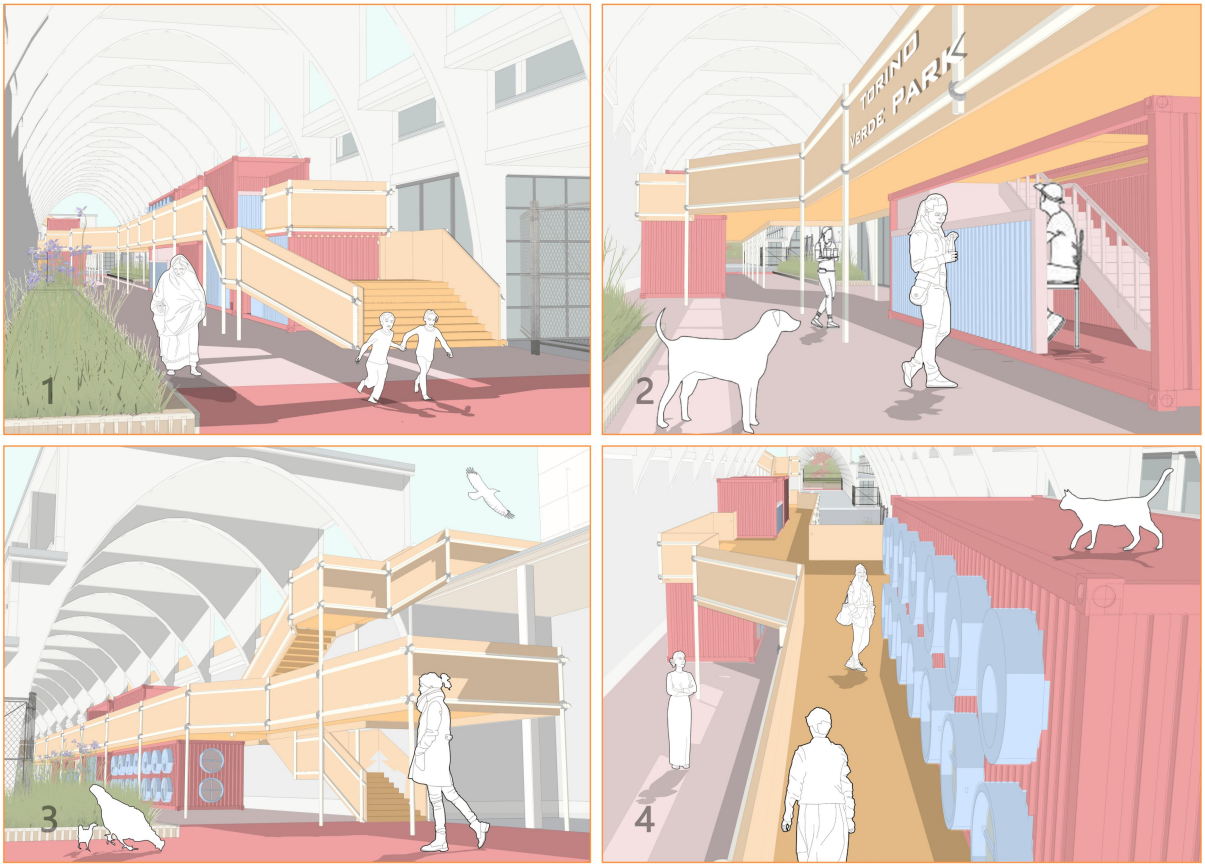


Figure 7-26(b) Comprehensive Analysis of Node C

Source: Author's own drawing

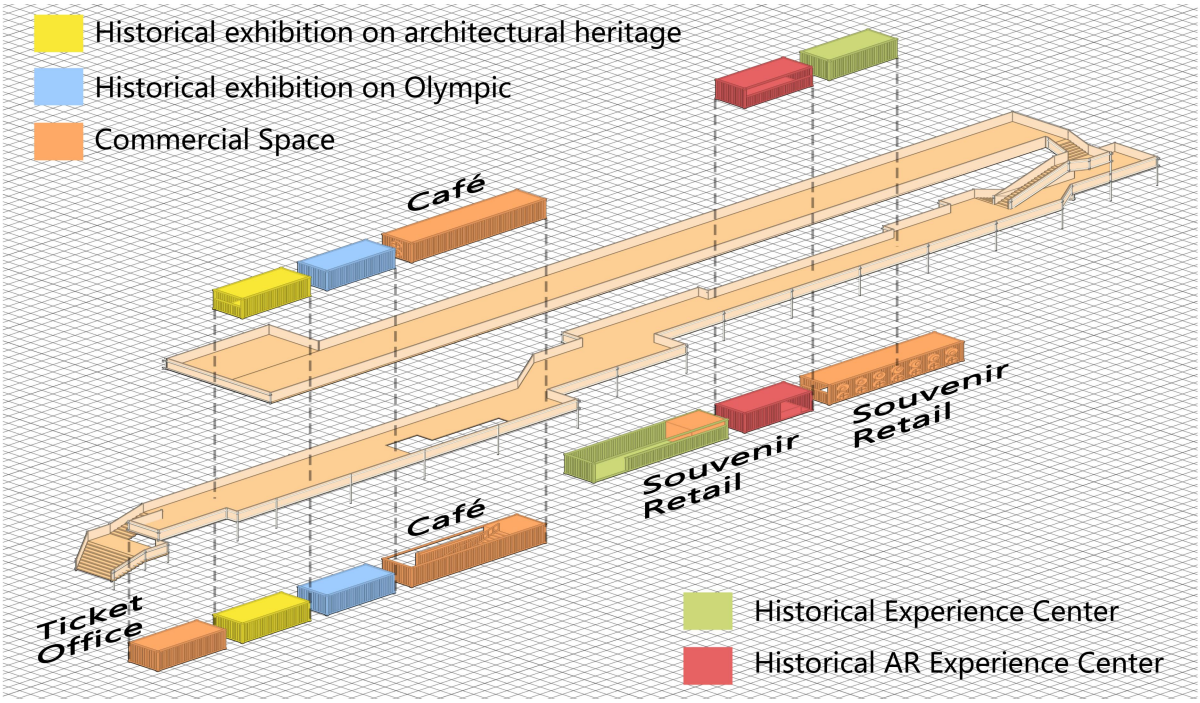


Figure 7-27 Functional Zoning of Node C

Source: Author's own drawing

The two types of exhibitions interweave to jointly construct a multi-layered, multi-dimensional cultural dialogue field: the former anchors historical facts through rigorous historical documentation and physical presentations, dedicated to systematic preservation of collective memory and construction of public awareness; the latter stimulates visitors' imagination, emotional resonance, and individualized interpretation through immersive scenes, interactive media, and artistic translation, promoting the perceptual transformation from "viewing history" to "feeling history."

Importantly, all exhibition content is implemented through a light-intervention, detachable temporary installation system—featuring flexible structures, recyclable materials, and low-disturbance installation. This strategy not only maximally avoids irreversible physical intervention to existing industrial heritage spaces, demonstrating high respect for the heritage entity; but also conceptually echoes the increasingly important "temporary commemoration" paradigm in contemporary curatorial practice: that commemoration does not rely on permanent structures but through time-limited, participation-oriented, and context-creating approaches, evoking memory in flux and conveying meaning in transience.

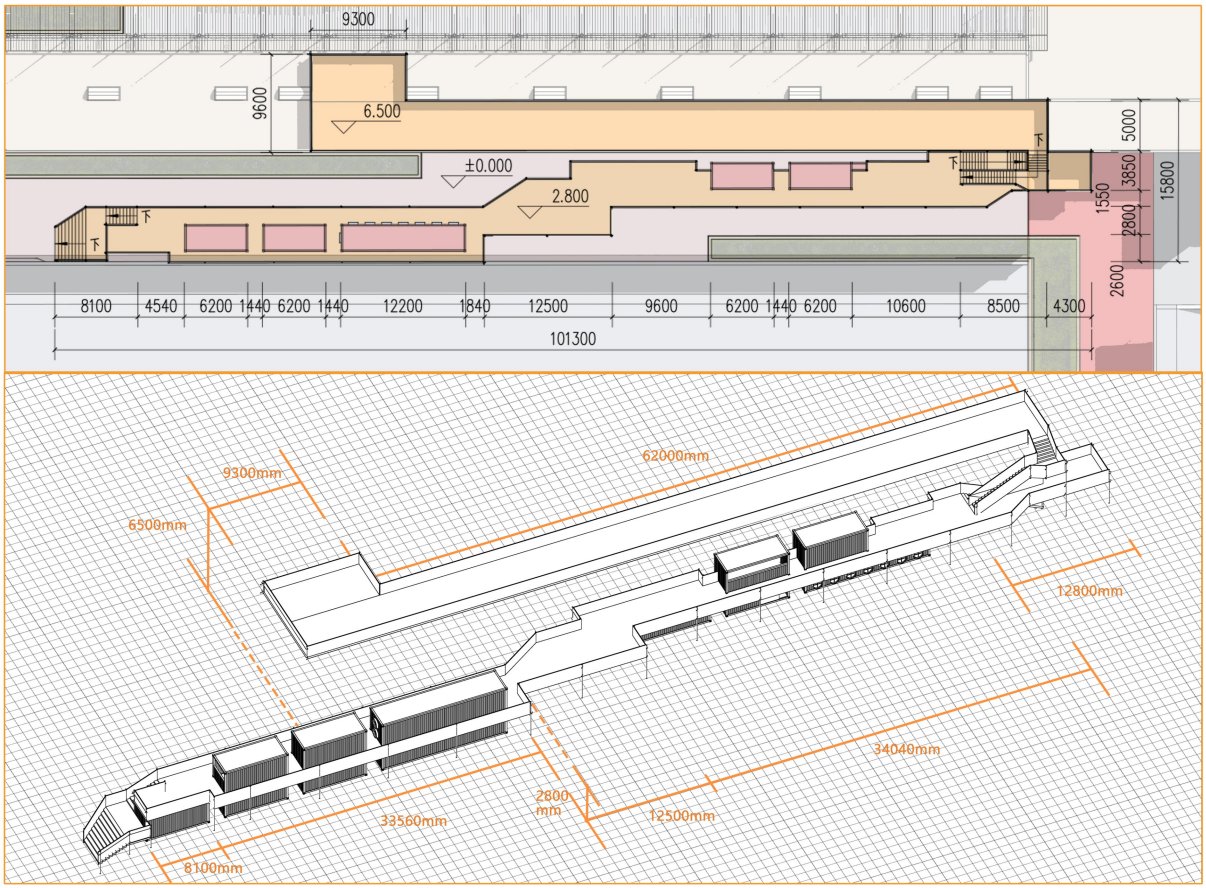


Figure 7-28(a) Introduction to Node C Installations

Source: Author's own drawing

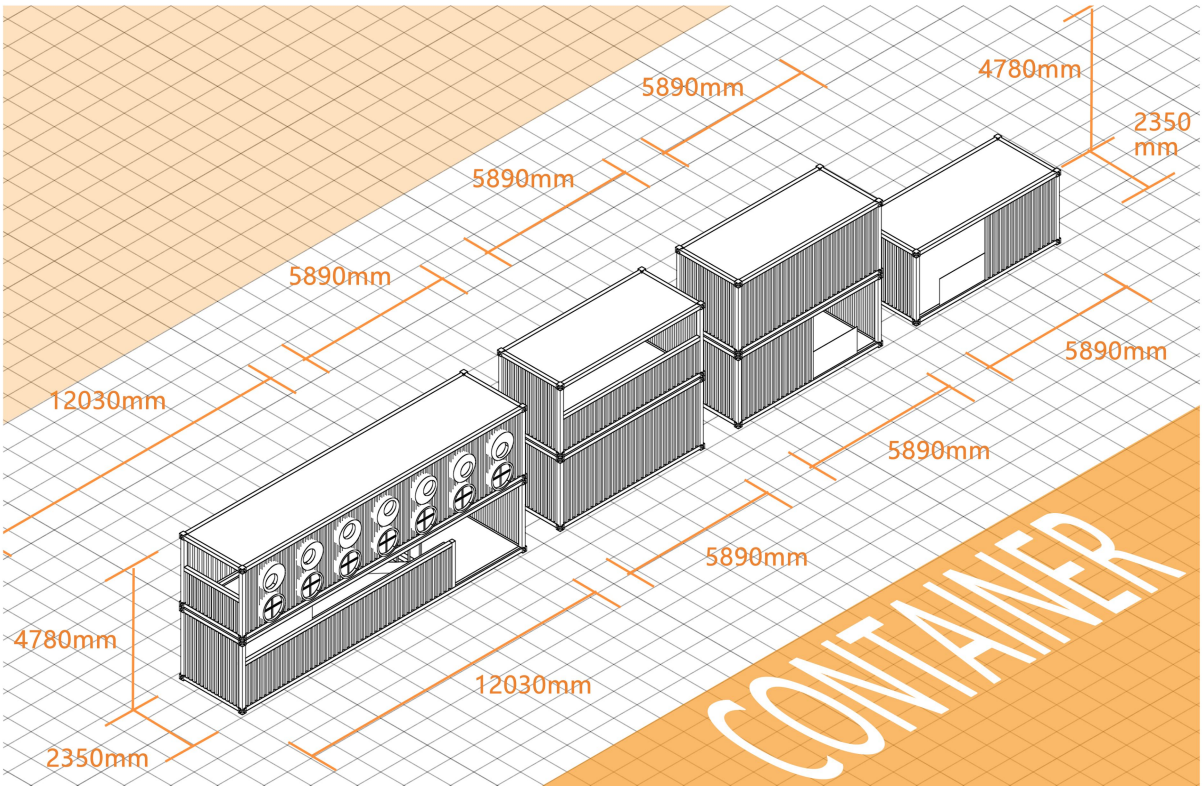


Figure 7-28(b) Introduction to Node C Installations

Source: Author's own drawing

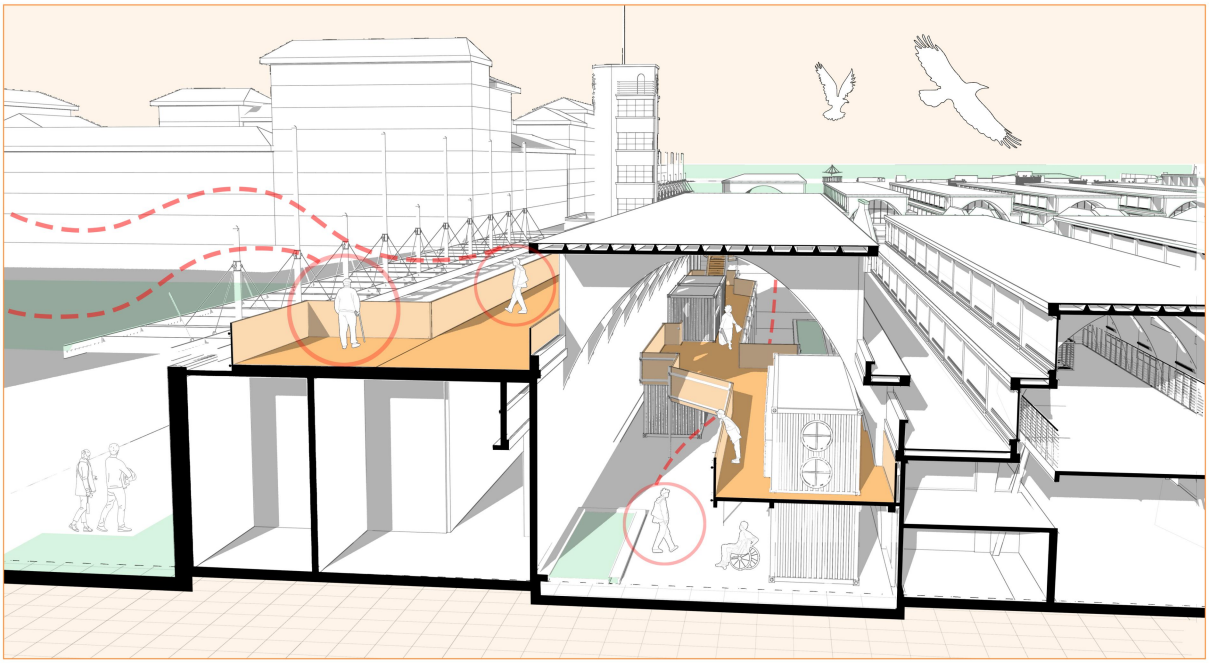


Figure 7-29 Visual Analysis of Node C

Source: Author's own drawing

From the perspective of installation and structural design, this node primarily employs materials such as wooden boards, scaffolding, and repurposed shipping containers (Figure

7-28), presenting an overall temporary construction language that combines practicality with aesthetic tension. The design exhibits three significant characteristics:

First, the scheme highly aligns with the core temporality strategy of "modularity and detachability" advocated by this renewal plan. All components adopt standardized interfaces and lightweight assembly methods, not only significantly reducing costs but also facilitating future flexible adjustments or complete dismantling according to functional requirements, fully implementing the concept of sustainable development.

Second, the selected materials and construction methods visually continue and strengthen the site's original industrial genes—the exposed structures, rugged wooden panels, and the metal texture of shipping containers collectively form a simple yet powerful industrial aesthetic style.

Finally, leveraging the flexibility and rapid assembly advantages of the modular system, the design ingeniously adds a temporary viewing platform leading to the roof of the old building (Figure 7-29). This light-intervention vertical connection not only activates the previously idle rooftop space but also functionally provides visitors with a new perspective to overlook the park and surrounding urban landscape, greatly enriching the hierarchical nature and sense of participation in the touring experience, embodying the spatial intervention wisdom of "seeing the big picture through small details."

7.3.5 Activity and Leisure Function Design

Node D is located in the Historical and Cultural Zone, positioned as a leisure and entertainment area. This node is designed as a light-intervention, highly flexible temporary art theater, whose core function lies not only in providing a performance venue but also in carrying Olympic memories, promoting community dialogue, and stimulating public participation, becoming a dynamic cultural carrier. Distinct from traditional enclosed theaters, this space flexibly utilizes the area beneath the Olympic Bridge, adopting an open layout with a detachable stage, modular seating, and a dual-form stage as the basic framework, ensuring complete restoration to its original state after the project cycle concludes, fully embodying the design principles of "temporality" and "reversibility."

From the perspective of installation design, this node primarily employs wooden boards and scaffolding (Figure 7-31), similarly aligning with the "modularity and detachability" temporality strategy emphasized by this renewal plan. The overall construction is convenient and low-cost, genuinely implementing the concept of sustainable development.

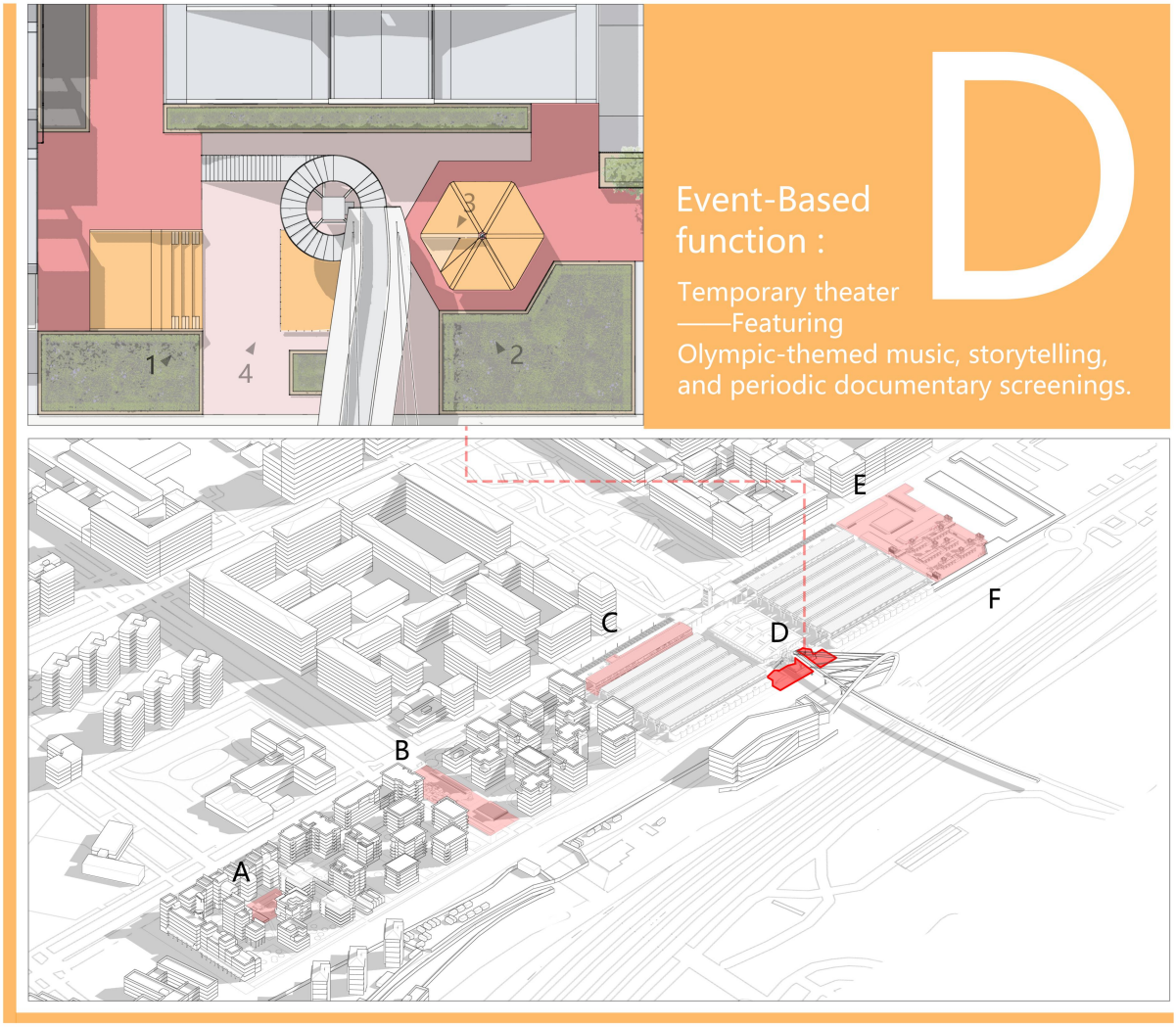


Figure 7-30(a) Comprehensive Introduction to Node D

Source: Author's own drawing

From a functional perspective, this node curates two complementary types of cultural activities, forming a dual-track content system of "narrative—imagery." The design employs a bidirectional audience-performer layout, ensuring that both sides of the bridge-under space can function as viewing areas, significantly enhancing site utilization and pedestrian flow flexibility (Figure 7-32).

Specifically, it comprises the following two functional components:

First, image screening activities, which periodically showcase documentaries from past Olympic Games, classic competition footage, and post-Olympic urban transformation cases, with particular focus on historical imagery from the 2006 Turin Winter Olympics. With large-scale projection and mobile screens, the bridge-under space can be temporarily transformed into an open-air cinema, evoking public emotional memories of Olympic heritage and stimulating intergenerational resonance and dialogue through soft lighting and collective

viewing (Figure 7-33, upper image).

Second, live performance activities, encompassing original musical performances themed around Olympic spirit, oral history narrations by athletes and local residents, and physical theater performances integrating sports movement vocabulary. Such performances emphasize locality, participation, and physicality, with certain programs inviting community residents to co-create and rehearse, transforming individual experiences into shareable public narratives, thereby enhancing the emotional attachment and social cohesion of the place (Figure 7-33, lower image).

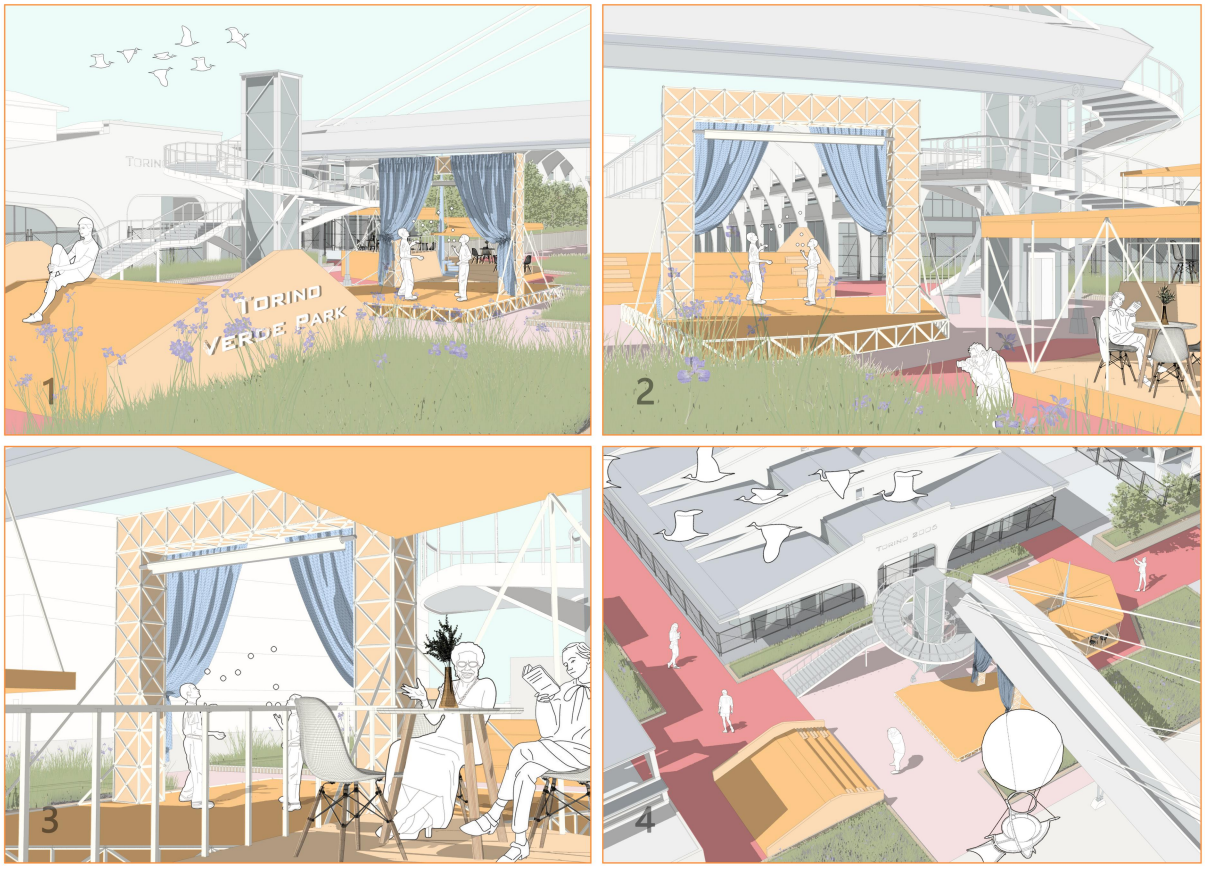


Figure 7-30(b) Comprehensive Introduction to Node D

Source: Author's own drawing

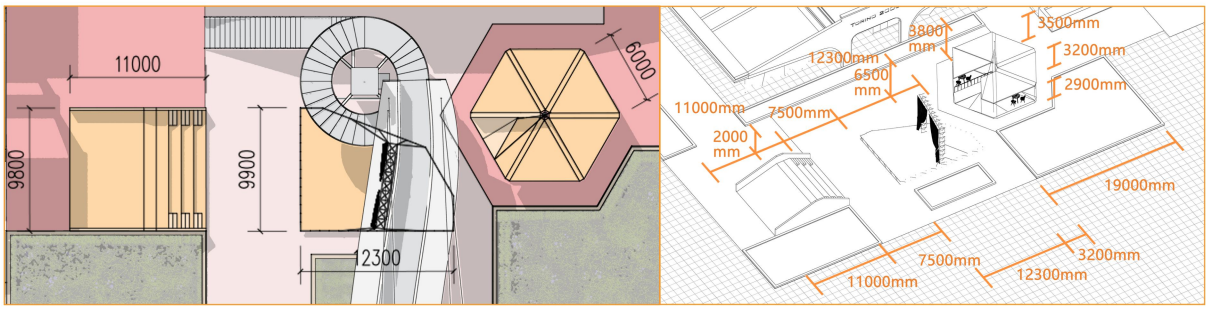


Figure 7-31 Introduction to Node D Installations

Source: Author's own drawing

All activities are primarily scheduled during evening or weekend hours—periods when pedestrian flow is relatively concentrated and environmental noise is lower, more conducive to creating immersive experiences. To balance atmosphere creation with ecological friendliness, the design employs a strategic lighting system (such as tree-hung LED string lights, ground-projected light spots, and stage contour lighting) and simple acoustic devices (such as reflectors and directional speakers), shaping a safe, warm, and ritualistic nighttime environment while avoiding light pollution and noise disturbance. Audiences can freely sit or recline on lawns, steps, or their own cushions, blurring traditional performer-audience boundaries and reinforcing the informality, inclusivity, and social vitality of public space.

Importantly, this theater is not an isolated cultural island but deeply embedded within the park's integrated network: documentary content can thematically resonate with the historical heritage exhibition at Node C; oral history materials derived from community interviews can also feed back into Node A's social services and daily interaction functions; post-performance pedestrian flow naturally guides audiences to Node F's nighttime market, effectively extending dwell time and activating the night-time economy. Thus, Node D transcends the positioning of a single performance venue, becoming a public cultural hub that interconnects collective memory, community life, and cultural consumption.

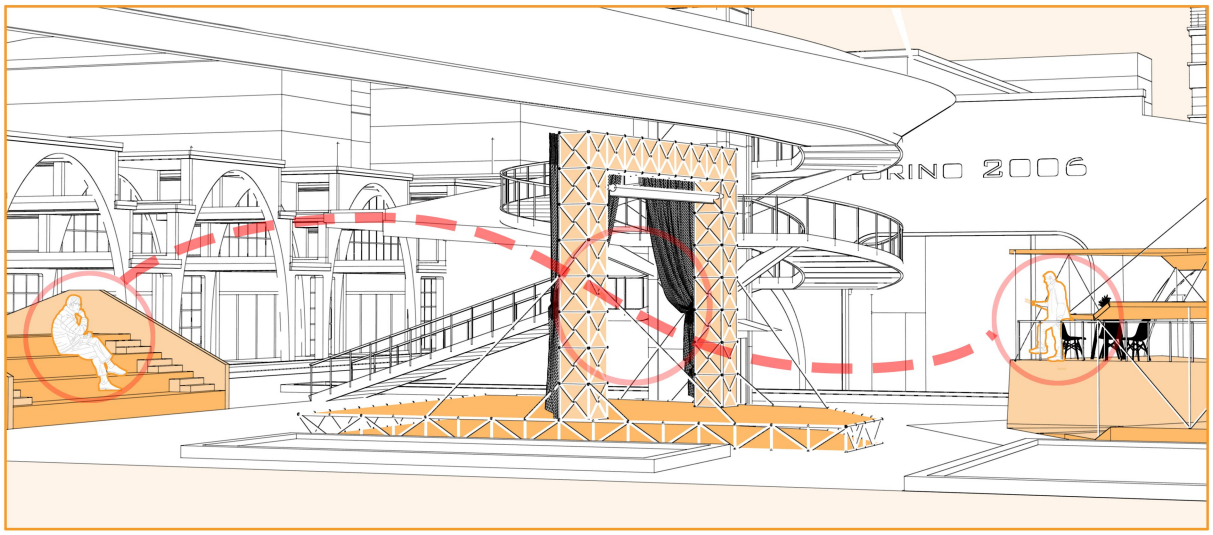


Figure 7-32 Visual Analysis of Node D

Source: Author's own drawing

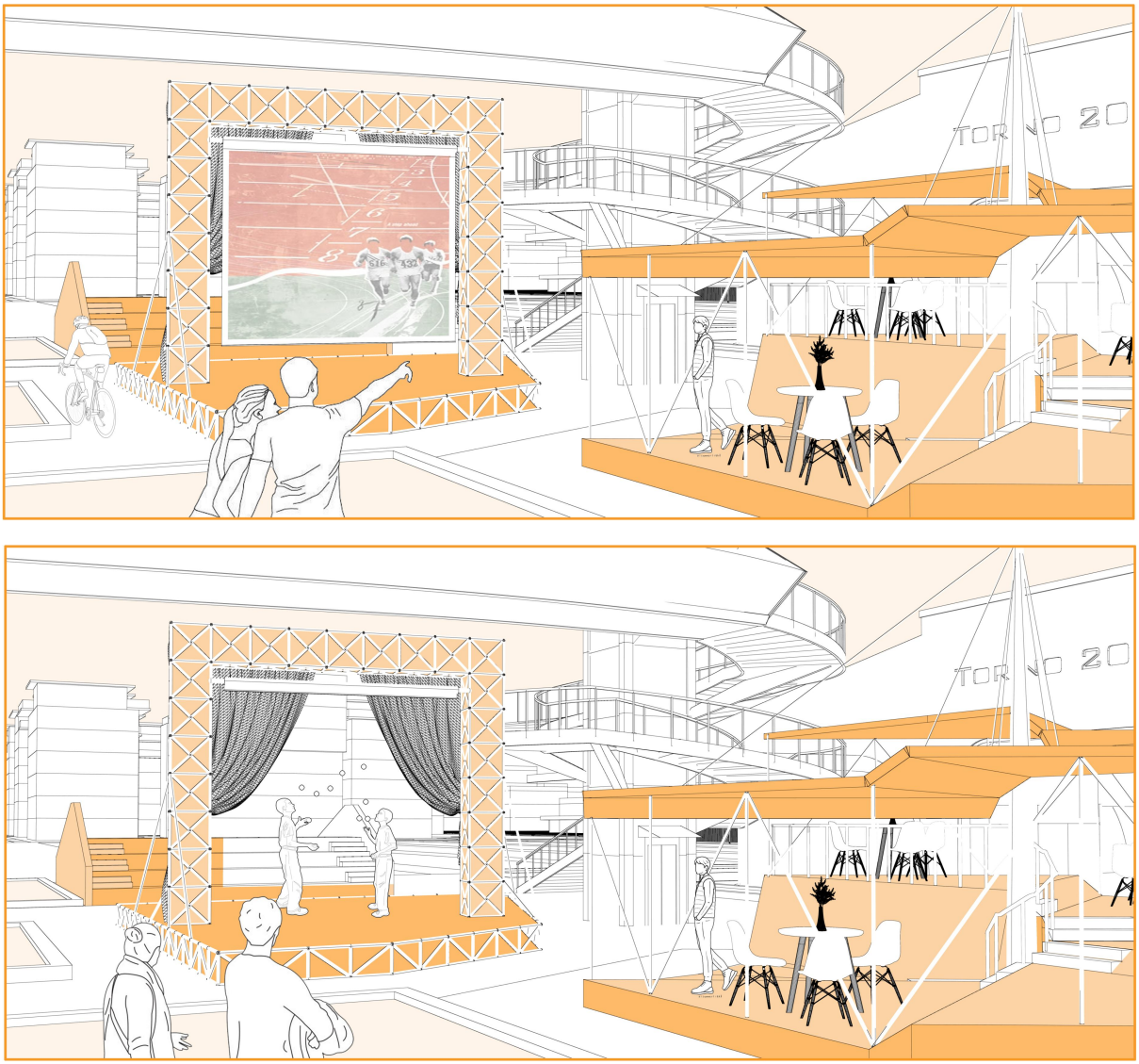


Figure 7-33 Two Modes of Node D Stage

Source: Author's own drawing

7.3.6 Economic Incubation Function Design

Node C is located in the Historical and Cultural Zone, positioned as a temporary market. To activate the site's daily vitality and respond to the practical needs of diverse user groups, the design introduces a low-cost, highly flexible temporary market at Node C. The market adopts a modular stall system and detachable structures, ensuring controllable construction costs, convenient operational adjustments, and clear exit mechanisms, fully aligning with the "light intervention, reversibility" principles of temporary urbanism. The overall layout is divided into three functionally complementary zones—daily necessities area, fast food area, and Olympic-themed cultural and creative products area—forming a composite consumption scenario that balances practicality, experiential quality, and cultural significance.

From the perspective of installation design, this node primarily employs scaffolding and fabric (Figure 7-35), with the following specific characteristics:

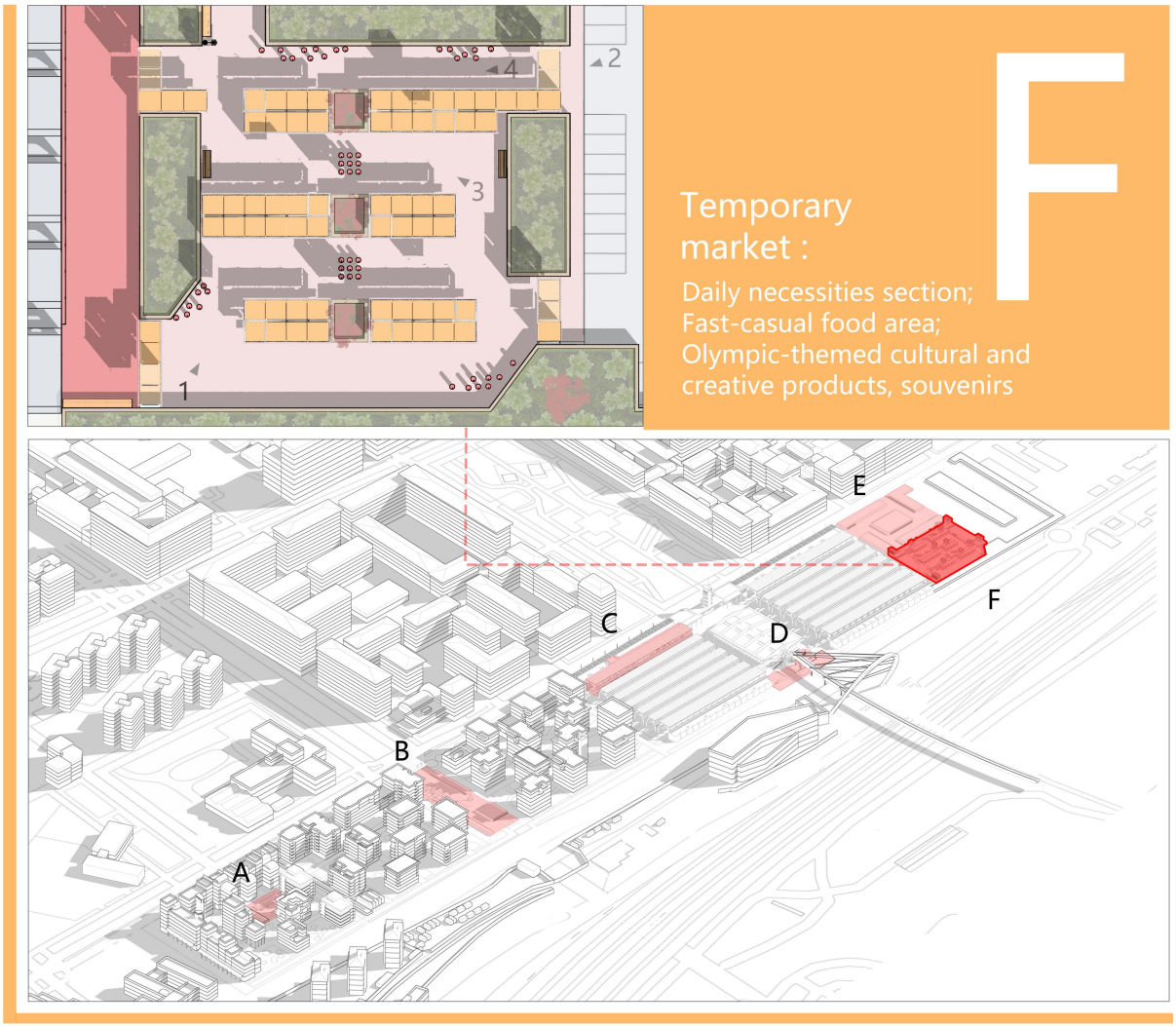


Figure 7-34(a) Comprehensive Introduction to Node F

Source: Author's own drawing

First, it strictly adheres to the core temporality strategy of "modularity and detachability" emphasized in this renewal plan. All components are designed based on standardized interfaces, facilitating rapid installation and subsequent dismantling, genuinely implementing the concept of sustainable development.

Second, blue and orange fabrics are selected as the primary visual tones, not only forming a striking focal point against the gray-toned industrial background to effectively attract pedestrian attention, but also creating a warm-cool contrast and color resonance with the red elements used throughout the park's play axis, establishing a unified yet rhythmically dynamic visual identity system.

Third, standard 3-meter modular square units serve as the basic stall modules, ensuring

spatial efficiency while allowing flexible assembly and reconfiguration according to event scale or merchant type.

Finally, the design incorporates slightly elevated structural elements above certain units to serve as display carriers for advertising signage, stall names, or thematic information. These vertical elements not only strengthen information communication and brand recognition but also break the horizontal extension of the overall layout through scale variation, adding visual rhythm and interest.

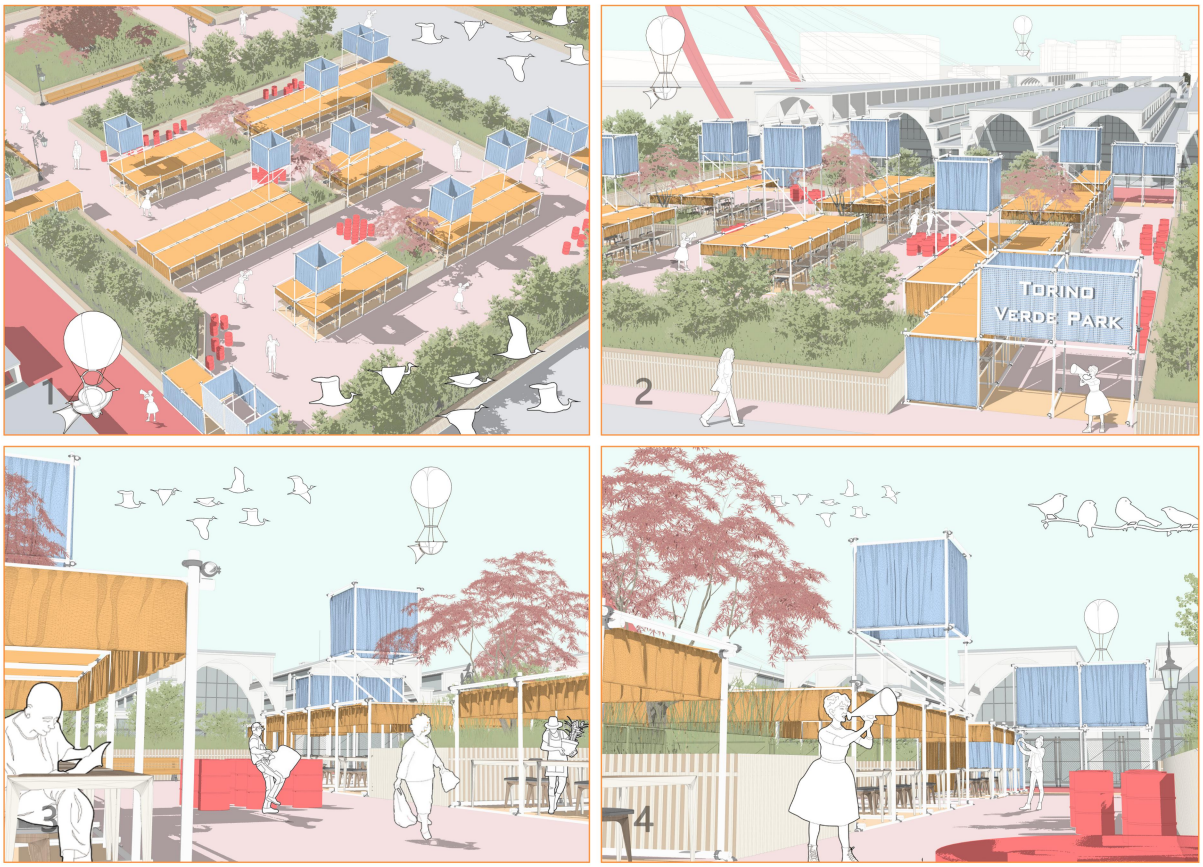


Figure 7-34(b) Comprehensive Introduction to Node F

Source: Author's own drawing

From a functional perspective, it is specifically divided into the following three parts (Figure 7-36):

First, the daily necessities area focuses on community basic service functions, providing daily essentials (such as cleaning supplies, simple kitchenware, stationery, etc.) and convenient services (such as mobile phone charging, express delivery collection, information consultation, etc.), meeting the high-frequency, short-duration daily needs of surrounding residents, and reinforcing the site's role as a "community life supply station."

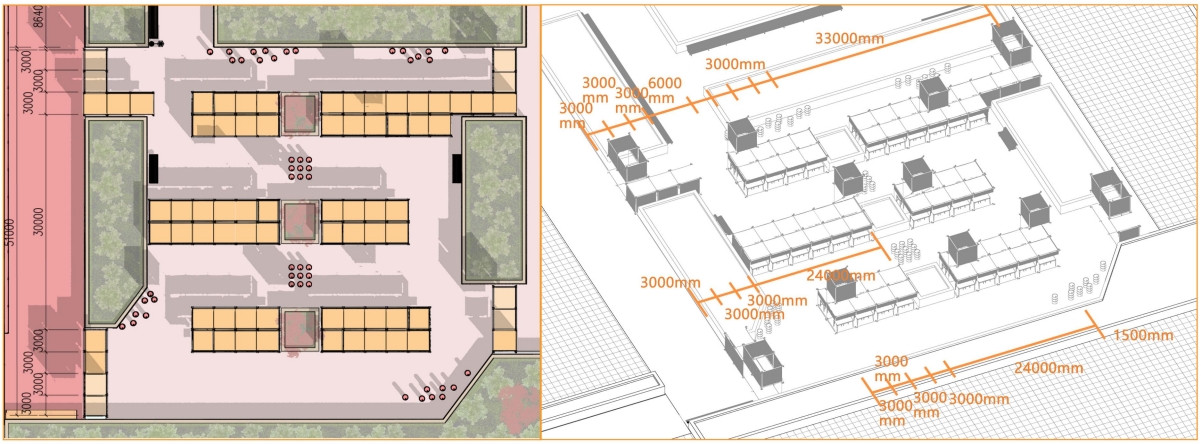


Figure 7-35 Introduction to Temporary Market Installations

Source: Author's own drawing

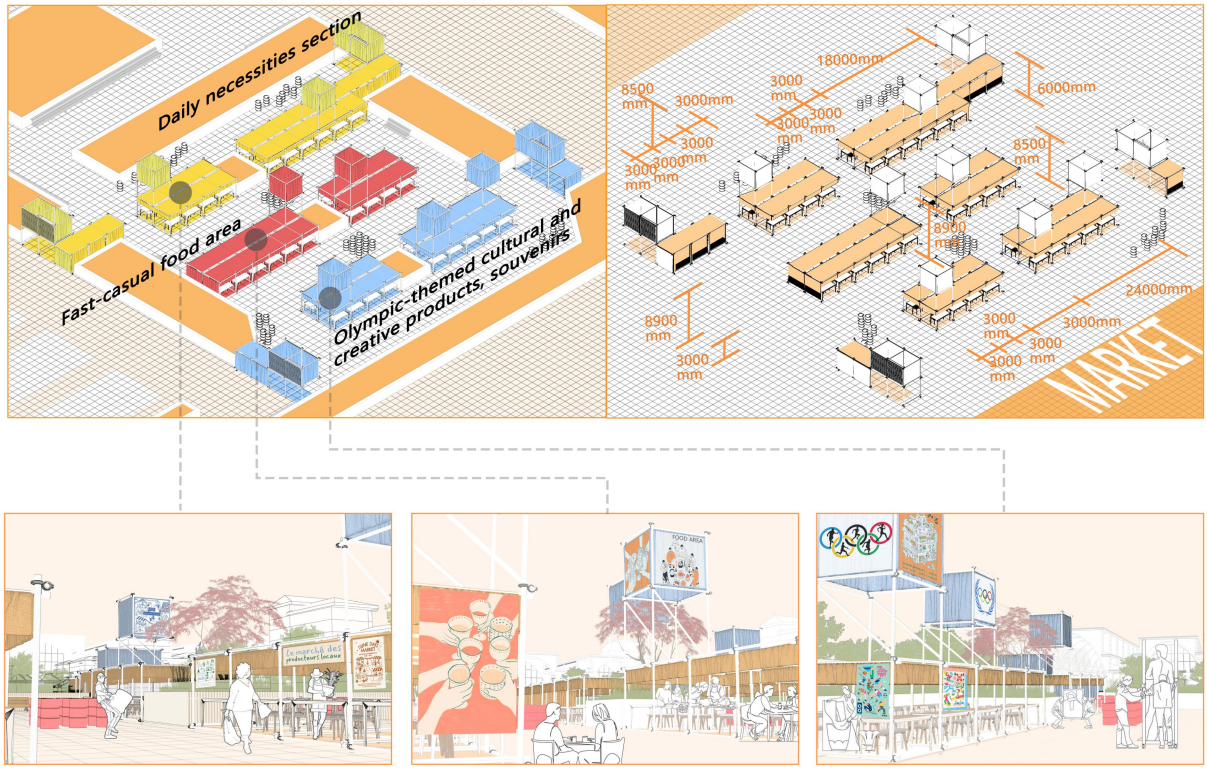


Figure 7-36 Functional Zoning of Temporary MarketFigure

Source: Author's own drawing

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Second, the fast food and leisure area follows the principles of "healthy, convenient, and localized," introducing small catering units that offer ready-to-eat meals, specialty beverages, and light snacks. All stalls adopt uniformly sized mobile food trucks or foldable operation tables, facilitating rapid deployment during peak hours and efficient storage during non-business hours. Simultaneously, by limiting oil fume and noise emissions, harmony with surrounding ecological and recreational functions is ensured.

Third, the Olympic-themed cultural and creative products and souvenirs area carries dual missions of cultural dissemination and creative economy. All merchandise is originally developed by local designers, artisans, and social cooperatives, encompassing hand-drawn illustration postcards, eco-friendly accessories made from recycled materials, 3D-printed Olympic symbol derivatives, and more. These products not only represent contemporary reinterpretations of the 2006 Turin Winter Olympics heritage but also embody sustainable design concepts. Limited releases and localized production models not only enhance product uniqueness but also directly support micro-entrepreneurship and community employment.

7.4 Construction Phase Planning

This study divides the overall planning into several phases. Based on the dynamic changes in site characteristics, implementing entities, and resource conditions, the comprehensive actions from 2026 to 2030 are categorized into five typical intervention modes, corresponding respectively to Nodes A – F (Figure 7-37). Their evolution is not linear progression but presents a complex, interwoven relationship across the temporal dimension (Figure 7-38).

7.4.1 Exit Planning for Temporary Strategies

The phased characteristics of each mode are as follows:

(1) Node A: Relay Diffusion Mode

This mode (Relay Diffusion Mode) manifests as "relay-style" transfer and redeployment of intervention strategies across different plots. For example, the temporary intervention strategy initiated in Lotto V (Plot V) in 2026 migrates to Lotto IV (Plot IV) in 2027, then shifts to Lotto III (Plot III) in 2028, and finally returns to Lotto V or transitions to other areas in 2029. This process simulates the "fluid regeneration" mechanism of Olympic heritage—through spatial rotation of strategies, overuse of single sites is avoided while design language and social momentum are transmitted across different locations, forming a cross-node

knowledge diffusion network.

(2) Nodes B/E: Point-to-Area Expansion Mode

This mode (Point-to-Area Expansion Mode) uses Lotto VII (Node B) as the initial anchor point. Intervention commences in 2026 with Phase I, gradually expanding to Phase II and Phase III. By 2028, the strategy further leaps to Lotto I (Node E), establishing pilot projects at the district scale. Finally, by 2030, comprehensive coverage is achieved followed by orderly exit. This mode emphasizes gradual penetration from "point to area," aligning with the classic pathway in urban renewal of "demonstration leadership—institutional replication—system integration," particularly suitable for high-potential but foundationally weak peripheral areas.

(3) Node C: Direct Termination Mode

This mode (Direct Termination Mode) targets specific sites such as Ex MOI (Node C). After intervention strategies complete predetermined phase objectives (Phase I → Phase II → Phase III), they terminate immediately without subsequent extension or migration. This mode reflects rational conclusion of short-term, task-oriented projects—when site functions have reached preset transformation thresholds (such as community activation, infrastructure readiness), continued investment yields diminishing marginal benefits. Timely termination releases resources for new priority areas, demonstrating dynamic assessment and flexible adjustment capabilities of the strategy.

(4) Node D: Reuse Mode

This mode (Reuse Mode) begins intervention at Ex MOI (Node D) in Phase I of 2028. Upon project completion in 2029, all materials and components are systematically disassembled, categorized, and transferred to other construction sites for reuse. This mode embeds the concept of "material metabolism" into the implementation process, echoing the "closed-loop circulation" principle in sustainable design. Its value lies not only in cost savings but also in constructing a portable lightweight intervention prototype—through standardized modules and rapid assembly systems, achieving "one-time design, multi-site reuse," significantly enhancing the scalability efficiency of the strategy.

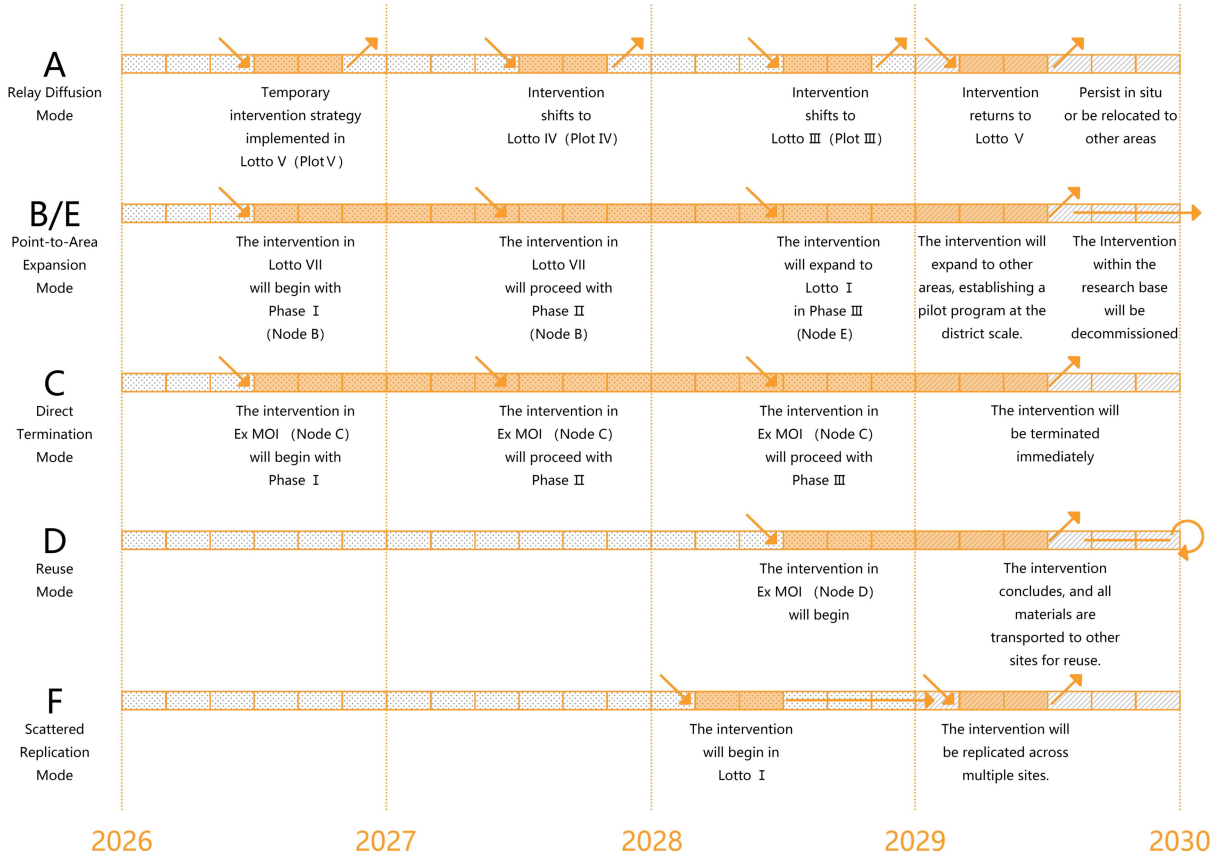


Figure 7-37 Exit Mode Planning

Source: Author's own drawing

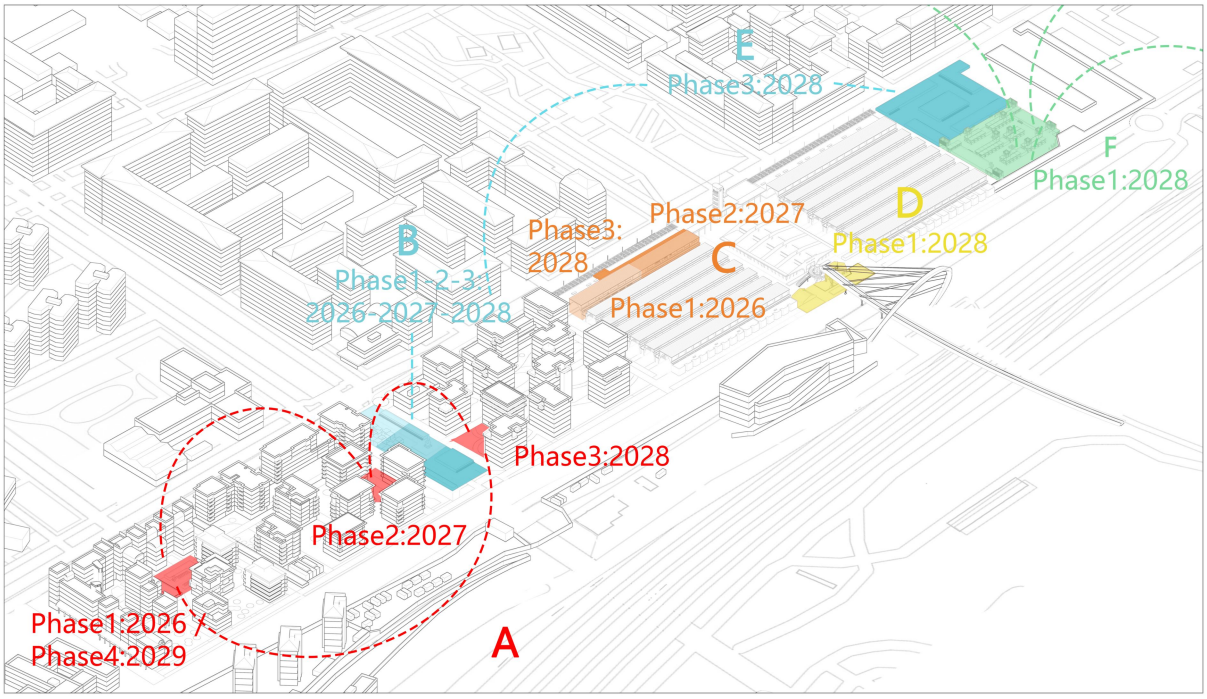


Figure 7-38 Phased Planning

Source: Author's own drawing

(5) Node F: Scattered Replication Mode

This mode (Scattered Replication Mode) starts at Lotto I. After intervention strategies launch in 2028, they rapidly replicate synchronously across multiple heterogeneous sites (such as cross-district deployment in 2029). Distinct from the linear expansion of B/E, this mode emphasizes decentralized, high-concurrency distributed implementation, suitable for highly mature standard modules (such as public furniture systems, micro-greening units). Its advantage lies in quickly forming "visual and experiential consistency," strengthening public cognitive identification with the overall plan, serving as a key mechanism for achieving widespread penetration of "Olympic culture lifestyle integration."

7.4.2 Master Plan After Restoration

Based on the design of temporary strategy exit mechanisms outlined in the previous section, this study further conceptualizes the master plan following the conclusion of temporary interventions (Figure 7-40). Overall, this final-phase scheme continues to uphold the project's core design principles established at inception: strict protection of cultural heritage, anchoring tourism as the dominant industrial positioning, and consistent implementation of sustainable development concepts.

The functional layout after restoration primarily focuses on returning the site to its original state, while selectively retaining certain functional elements widely recognized during the temporary renewal period to respond to future usage needs and development potential of the site. As shown in Figure 7-39, the restoration plan prioritizes preservation of the ecological park's green space structure and the basic framework of market installations—the former aligns with the future positioning of community park public green space, while the latter continues to satisfy surrounding residents' demands for daily commercial services.

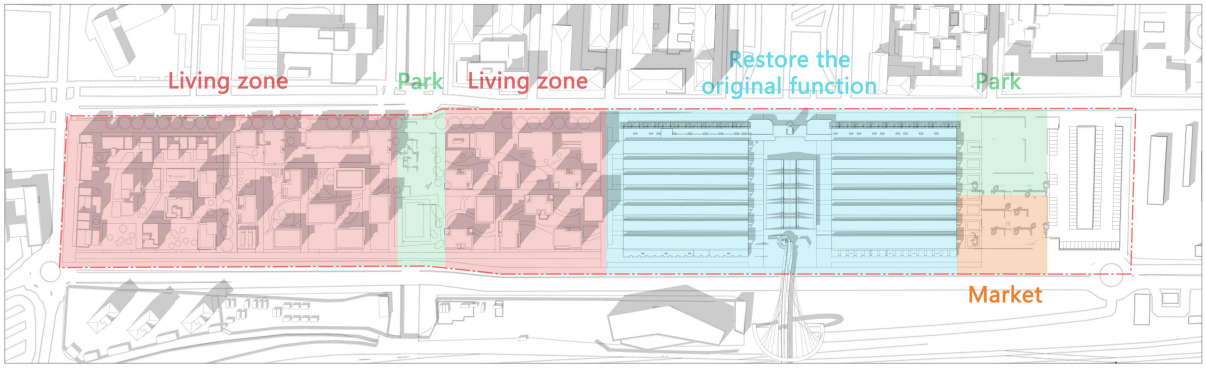


Figure 7-39 Functional Planning After Exit of Temporary Strategies

Source: Author's own drawing

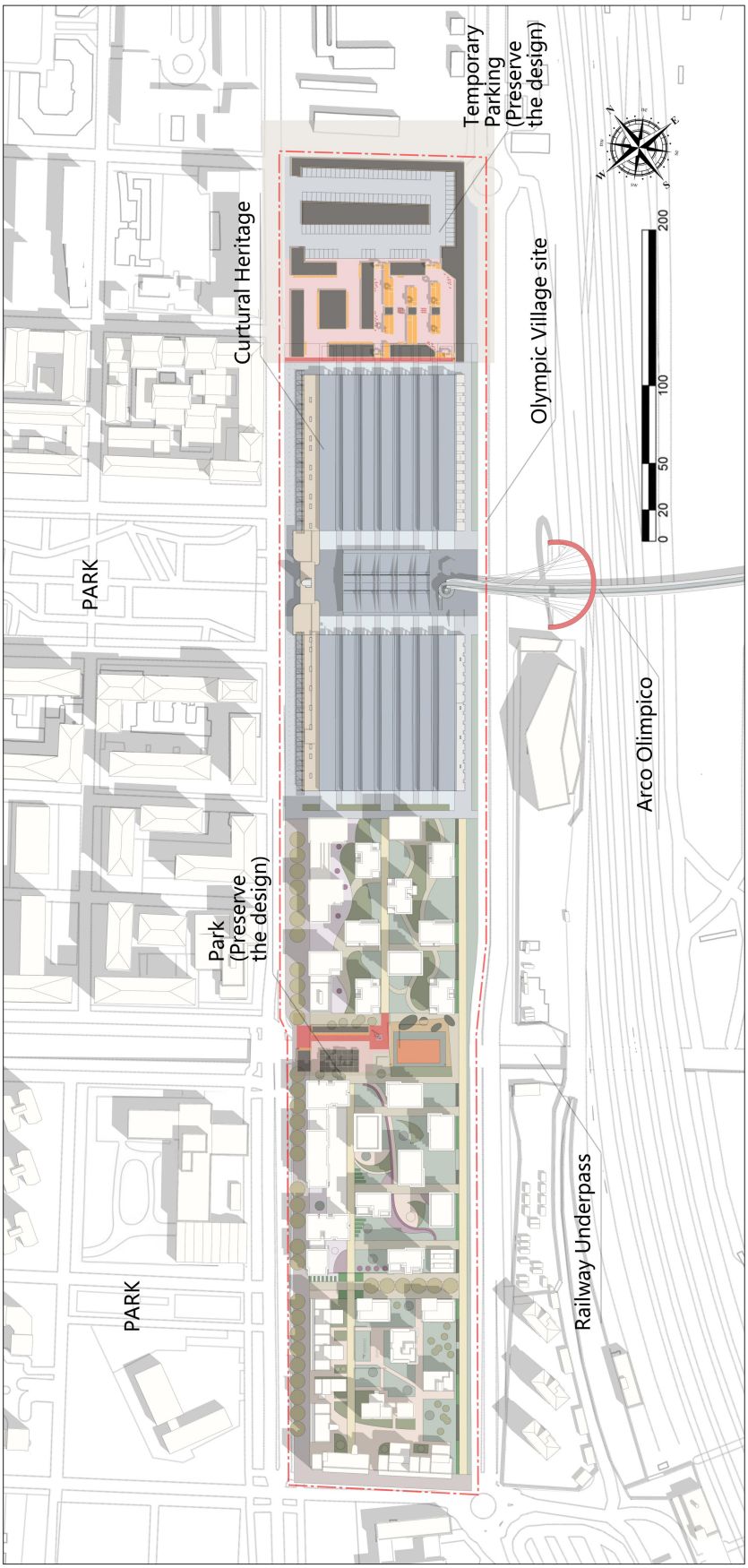


Figure 7-40 Master Plan After Exit of Temporary Strategies

Source: Author's own drawing

Specifically, the disposal methods for each node after temporary strategy exit vary according to functional positioning and installation characteristics:

Temporary installations at Nodes C and D will be directly dismantled. Among them, Node D's structures, due to their appropriate scale and structural integrity, possess high reuse value and are planned for relocation to alternative sites for secondary utilization.

Nodes B, E, and F will selectively retain certain temporary installations under the premise of fully aligning with future site planning. Building upon these, the design models and operational experiences of each node will be explored for promotion to surrounding areas, forming replicable and extensible renewal paradigms.

Installations at Node A will be completely dismantled, while its design strategies and community participation mechanisms will "relay" transfer to the next community space, serving as a methodology for broader application in community renewal practices.

7.5 Chapter Summary

This chapter proposes an overall temporary renewal scheme for the Turin Olympic Village based on preceding research. First, it establishes three core design principles: "emphasizing protection, anchoring industrial positioning, and implementing sustainable development." Subsequently, it constructs a macro-level renovation framework using prototype outcomes as the skeleton, "Turin Green Trail Park" as the theme, and "modular detachability" as the core strategy, further detailing temporary planning content for each functional zone. At the specific level, node-level design deductions are conducted around five functional categories: social services, ecology, culture, leisure, and economy. Finally, a phased implementation pathway is proposed.

Conclusion

This study focuses on the post-event challenges faced by large-scale sports event legacies—particularly Olympic Villages—characterized by "high maintenance costs" and "low benefit returns," systematically exploring low-cost, highly flexible reuse pathways grounded in Temporary Urbanism theory. The research strictly follows the logical framework of "problem identification — problem analysis — problem resolution." The specific progression is as follows:

First, in the problem identification phase, this study employs Temporary Urbanism theory as a macro analytical framework, combined with micro empirical methods such as questionnaires and on-site field surveys, systematically identifying two core issues in Turin's 2006 Winter Olympic Village: First, the incomplete temporary planning system has led to prolonged site vacancy and severely insufficient spatial vitality; Second, the greenery configuration exhibits a "quantity-focused, quality-neglected" characteristic, with scattered vegetation distribution lacking organic connections to buildings, roads, and public activity spaces, creating a negative cycle of "high ecological investment but low environmental benefits."

Second, in the problem analysis phase, this study constructs a methodological system of "Temporary Renewal Methodology for Olympic Villages Based on Prototype Reference." On one hand, it conducts systematic statistical analysis of 56 Summer and Winter Olympic Village cases throughout history, focusing on their post-event temporary reuse patterns, scientifically categorizing four typical types to provide a macro design framework for subsequent renovation design; on the other hand, it extracts strategy prototypes from 115 global temporary urban practice cases, refining specific strategy prototypes aligned with five categories of temporary intervention directions from multiple dimensions including installation types and atmospheric experiences, establishing a rich design content support library for Olympic Village temporary renewal. Simultaneously, the research summarizes six subsequent development models following temporary interventions, providing theoretical foundations for the transformation from temporary interventions to long-term sustainable development. Additionally, based on micro-analysis of questionnaire data and field surveys, this study deeply analyzes the actual functional needs of residents surrounding the Turin Olympic Village and the current site characteristics, providing precise directional guidance and detailed foundational information support for renewal design.

Finally, in the problem resolution phase, this study selects "park" as the core design

theme from the seven "reuse types" of Olympic Villages summarized earlier; from the four "temporary reuse types" of Olympic Villages, it chooses "modularity and detachability" as the core temporary design strategy — these two elements together form the design framework, providing reference for the temporary renewal design of Turin Olympic Village. Meanwhile, based on survey analysis results, it designs "Historical and Cultural Tourism Zone," "Life-Culture Zone," and "Living Zone" as core functional divisions, strategically introducing five function types highly aligned with surrounding residents' needs — including social services, culture, activities, commerce, and ecology — customizing corresponding temporary spatial strategies for each. Through this series of low-cost, highly flexible temporary intervention strategies, systematic adjustments and optimizations are made to the current spatial issues of the original Olympic Village site, achieving a complete closed loop from theoretical construction to practical application.

Main Research Outcomes and Innovations

1. This study attempts to systematically introduce Temporary Urbanism into the research field of Olympic Village renewal. At the theoretical level, it breaks through the limitations of existing research that predominantly focuses on temporary spaces at urban edges or artistic interventions, extending it to the high-complexity scenario of large-event legacy regeneration, deepening academic understanding of Olympic Village "temporary reuse" types, thereby expanding the application boundaries of Temporary Urbanism.

2. This study constructs a closed-loop methodology system integrating "macro typology —meso strategy library—micro design generation." This system begins with typological analysis, extracting prototype patterns through historical case induction; subsequently integrates to form a strategy prototype library; ultimately supporting customized design for specific sites. This methodology combines systematicity and flexibility, providing an operational, transferable toolkit and implementation pathway for low-cost, highly flexible, participatory renewal of future Olympic Villages and other large-event legacies.

3. Based on systematic collation and statistical analysis of 56 Summer and Winter Olympic Village cases throughout history, this study conducts cluster induction from multiple dimensions including site selection characteristics, post-event reuse patterns, and temporary strategy applications, identifying four representative temporary reuse patterns. This classification work advances the refinement and structuring of Olympic Village temporary strategy research to a certain extent, providing a referential classification framework for

subsequent research in this field.

4. This study conducts comprehensive field surveys and data compilation for the Turin Olympic Village. Content covers multiple dimensional information including historical evolution, property rights changes, building conditions, spatial attributes, industrial development, resident demands, and future potential, providing reliable first-hand data support for targeted research by the academic community.

5. Based on the aforementioned outcomes, this study proposes a temporary renewal design scheme for the Turin Olympic Village site, forming a renovation paradigm with practical feasibility. This provides direct reference for the Turin municipal government and relevant decision-making departments, promoting the transformation from "theoretical conception" to "practical response."

Application Prospects and Value

The renewal pathway oriented toward Temporary Urbanism proposed in this study demonstrates significant value across social, economic, and promotional dimensions, combining practical feasibility with strategic foresight:

At the social level, this pathway emphasizes activating idle spaces through low-cost, highly flexible means, awakening dormant urban corners through temporary interventions, effectively bridging spatial fragmentation and social alienation caused by large-event withdrawal, promoting multi-stakeholder co-construction and co-governance, and advancing more inclusive and equitable urban renewal.

At the economic level, its core advantage lies in "light investment, quick results, sustainability." Distinct from traditional heavy-asset renovation models, temporary strategies can rapidly enhance site vitality and usage efficiency, attracting micro-businesses, creative industries, and local services to establish residence, forming a "micro-circular economy" oriented toward resident needs; simultaneously reducing government pre-investment risks, reserving flexible space for subsequent incremental renewal, aligning with current urban governance realities under fiscal austerity.

Regarding promotional potential, the methodology and strategy library constructed in this study demonstrate excellent replicability and adaptability: applicable not only to typical event legacies such as Olympic Villages but also extendable to widespread scenarios including Expo sites, Universiade Villages, industrial heritage, and even urban inefficient land. Its core logic—namely the closed-loop process of "type identification→strategy matching→flexible

implementation" — provides a universal reference framework for stock space regeneration under different geographical, institutional, and cultural contexts.

Future Research Outlook

To further deepen research in this field and promote practical transformation, subsequent work can continue to advance in the following four aspects:

1. Establish dynamic monitoring and effectiveness evaluation mechanisms: combining digital technologies (such as mobile signaling, sensor networks, public feedback platforms), conducting long-term tracking of temporary renewal projects' usage intensity, crowd behavior, environmental performance, and social impact, constructing a closed-loop evaluation system of "design—implementation—feedback—optimization," enhancing strategy scientificity and responsiveness.
2. Explore policy innovation and institutional flexibility support: temporary renewal is often constrained by current rigid planning management restrictions. Future research needs to deeply investigate institutional tools adaptable to temporary use, such as "temporary land use permits," "deficiency-tolerant approval lists," "community self-governance agreements," etc.
3. Expand the breadth and depth of typological research: current research focuses on Olympic Village reuse types and their temporary renewal strategies; future work can systematically examine the influence of multidimensional factors such as political systems, climatic conditions, and social structures on renewal patterns, thereby constructing more universal and context-adaptive classification frameworks and intervention logics.
4. Integrate ecological technologies, advancing toward green and low-carbon renewal: combining temporary renewal with carbon neutrality goals, exploring integrated applications of low-intervention ecological technologies such as detachable building materials, modular green planting systems, rainwater recycling devices, etc., assisting the sustainable transformation of urban renewal.

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Appendix 1

Table 1 Summary of Olympic Village Information

Period	Ssn. [21]	Year	Host City	Type				
				A. S. [22]		Site Selection	Reuse Approach	Temporary Strategy
Temporary Accommodation Period 1896-1928	S	1896	Athens [40]	-	-	Accommodation provided by hotels or residents (borrowed)	Restore to original	Temporary use of existing buildings
		1900	Paris [61]	-	-	Around the venue	Direct demolition	Temporary wooden houses
		1904	St. Louis [61]	-	-	Hotels (borrowed）	Restore to original	Temporary use of existing buildings
		1908	London [62]	-	-	Accommodation provided by hotels or residents (borrowed)	Restore to original	Temporary use of existing buildings
		1912	Stockholm [63]	-	-	Schools, hotels (borrowed)	Restore to original	Temporary use of existing buildings
		1916	Berlin (canceled due to WWI)）	-	-	-	-	-
		1920	Antwerp [62]	-	-	Schools (borrowed)	Restore to original	Temporary use of existing buildings
		1924	Paris [45][46]	-	-	Around the venue	Direct demolition	Temporary wooden houses
		1928	Amsterdam	-	-	Hotels, schools[64], ships (borrowed)[65]	Restore to original	Temporary use of existing buildings

[21] Ssn=Season; S=Summer; W=Winter

[22] A.S.=Architectural Style; DH=Detached House; AB=Apartment Block; HR=High-Rise Residential Complex

Period	Ssn. [21]	Year	Host City	Type				
				A. S. [22]		Site Selection	Reuse Approach	Temporary Strategy
	W	1924	Chamonix[66]	-	-	Accommodation provided by hotels or residents (borrowed)	Restore to original	Temporary use of existing buildings
		1928	St.Moritz[67]	-	-	Hotels (borrowed）	Restore to original	Temporary use of existing buildings
Exploration Period 1932-1936	S	1932	Los Angeles [68][69]	D H	SL [23]	Peri-urban mountainous areas (new construction + temporary construction)	Reclaim building materials for reconstruction	Use lightweight, disassemblable wooden structures; dismantle and reuse after the event
		1936	Berlin[70]	D H	SL	Military base (reconstruction)	Barracks → Refugee camp → Open-air museum	Temporarily used to accommodate refugees, later converted into a museum, with some buildings repurposed as residential units and apartments
	W	1932	Lake Placid[71]	-	-	Accommodation provided by hotels or residents (borrowed)	Restore to original	Temporary use of existing buildings
		1936	Garmisch Partenkirchen [72]	-	-	Hotels (borrowed）	Restore to original	Temporary use of existing buildings

[23]SL= Suburban Landscape Type

Period	Ssn. [21]	Year	Host City	Type				
				A. S. [22]		Site Selection	Reuse Approach	Temporary Strategy
Initial Development Period 1948-1956	S	1948	London[73]	-	-	Military base (reconstruction), school (borrowed)	Restore to original	Temporary use of existing buildings
		1952	Helsinki [74]	AB	SL	Suburban areas (new construction)	Converted to Residential area	-
		1956	Melbourne [75]	AB	SL	Suburban areas (new construction)	Converted to Community area	-
			Stockholm [38][39]	-	-	Military Academy, Naval School (borrowed)	Restore to original	Temporary use of existing buildings
	W	1948	St.Moritz[76]	-	-	Hotels (borrowed）	Restore to original	Temporary use of existing buildings
		1952	Oslo[77]	AB	UC [24]	Urban living areas (new construction)	Student village, hospital staff housing, elderly housing	-
		1956	Cortina d'Ampezzo [78]	-	-	Hotels (borrowed）	Restore to original	Temporary use of existing buildings
Comprehensive Development Period 1960-1976	S	1960	Rome [79][80]	AB	SC [25]	Slum areas on urban periphery (reconstruction)	Converted to Residential area	-

[24] UC=Urban Center Type
[25] SC=Satellite City Type

Period	Ssn. [21]	Year	Host City	Type				
				A. S. [22]		Site Selection	Reuse Approach	Temporary Strategy
		1964	Tokyo[81]	AB	SC	U.S. military dormitory areas on urban periphery (reconstruction)	Converted to Yoyogi Park, retaining one house	-
		1968	Mexico City [82]	HR	SC	Suburban areas (new construction)	Converted to Residential area	-
		1972	Munich [83][84][85]	HR	UC	Former airport site (reconstruction)	Converted to Residential area	-
		1976	Montreal [86]	HR	UC	City center area (new construction)	Converted to Residential area	-
	W	1960	Squaw Valley [87][88][89]	AB	-	Valley (new construction)	Hotel resort apartments and conference center → Training center	-
		1964	Innsbruck [90][91]	AB	UC	Urban residential area (new construction)	Converted to Residential accommodation	-
		1968	Grenoble [92][93]	HR	SC	Southern expansion area of the city (new construction)	Converted to Residential area	-
		1972	Sapporo[94][95]	HR	UC	Former Hokkaido Police Academy site (reconstruction)	Converted to Residential area	-
		1976	Innsbruck [96][97]	HR	UC	Near the former Olympic Village (reconstruction and new construction)	Converted to Residential area	-

Period	Ssn. [21]	Year	Host City	Type				
				A. S. [22]		Site Selection	Reuse Approach	Temporary Strategy
Sustainable Development Period1980-2024	S	1980	Moscow[98]	HR	UC	Between urban periphery and city center (new construction)	Converted to Residential area	-
		1984	Los Angeles [99][100]	-	-	University campus (borrowed)	Returned to students, one restaurant converted to campus canteen	Borrowing school space, constructing temporary buildings, dismantling after the event, and returning space to campus
		1988	Seoul [101][102]	HR	RT [26]	Between urban periphery and city center (new construction)	Converted to Residential area	-
		1992	Barcelona [103][104]	HR	RT	Former coastal industrial belt site (reconstruction)	Converted to Residential area	-
		1996	Atlanta [41][42][43][44]	AB	-	University campus (borrowed)	Returned to students; new dormitory built from repurposed facilities	Space temporarily borrowed from the university; to be returned to campus post-event.
		2000	Sydney [105][106]	AB	RT	Abandoned heavy industrial area (reconstruction)	Converted to Residential area，partially repurposed for school	-

[26] RT=Revitalization Type

Period	Ssn. [21]	Year	Host City	Type				
				A. S. [22]		Site Selection	Reuse Approach	Temporary Strategy
		2004	Athens [107][108][109]	AB	SC	Northern suburban zone (new construction)	Converted to Residential area	-
		2008	Beijing [110][111][112]	AB	RT	Urban central axis (new construction)	Turned into Olympic Forest Park,public areas and apartment for sale.	-
		2012	London [113][114][115]	AB	RT	Abandoned heavy industrial area (reconstruction)	Converted to Residential area(including living facilities, schools, health centers)	-
		2016	Rio de Janeiro [116][117][118]	HR	RT	Urban periphery new zone (new construction)	Converted to Residential area	-
		2020	Tokyo [119][120][121][122]	HR	RT	Idle port area (new construction)	Converted to Community area	New temporary facilities built with reusable materials (e.g., wood); dismantled and recycled post-event
		2024	Pairs [123][124][125]	AB	RT	Abandoned heavy industrial area (reconstruction)	Converted to Community area	-
	W	1980	Lake Placid [126][127]	AB	-	Former sanatorium site (reconstruction)	Transferred to federal correctional institution	-

Period	Ssn. [21]	Year	Host City	Type				
				A. S. [22]		Site Selection	Reuse Approach	Temporary Strategy
		1984	Sarajevo [128][129][130]	AB	SC	Urban emerging residential zone (new construction)	Converted to Residential area	-
		1988	Calgary [131][132]	AB	-	School (reconstruction); Mountainous area (new construction)	Transformed into student dormitories (Galaxy) and public sports facilities (Canmore)	-
		1992	Albertville [133][134]	AB	-	Hostel (reconstruction)	Restore to original	Leased for temporary use; restored to original function post-Games
		1994	Lillehammer [48][49][47]	D H	-	Urban periphery new zone (new construction)	Converted to Residential area and public facilities; temporary facilities reconstructed elsewhere	Modular wooden units built; dismantled and reconstructed elsewhere post-Games
		1998	Nagano[135]	AB	-	Suburban vacant land (new construction)	Converted to Residential area; partial land sold for housing	-
		2002	Salt Lake City [136][137]	AB	-	School (reconstruction)	Converted to accommodation for students	-
		2006	Turin [138][139]	AB	RT	Former industrial zone (reconstruction)	Converted to residential and R&D complex	-

Period	Ssn. [21]	Year	Host City	Type				
				A. S. [22]		Site Selection	Reuse Approach	Temporary Strategy
		2010	Vancouver [140][141]	AB	RT	Former industrial zone and landfill (reconstruction)	Converted to Community area（Vancouver），accommodation units（Whistler）	-
		2014	Sochi [142][143]	AB	SC	Coastal and mountainous areas (new construction)	Converted to apartments and hotels	-
		2018	Pyeongchang [144]	HR	RT	Underdeveloped urban area (new construction)	Converted to private apartments	-
		2022	Beijing [145][146]	AB	-	New urban zone (new construction)	Converted to accommodation（Beijing），hotel，apartment，business center（Yanqing，Zhangjiakou）	-

Source: Author’s own drawing

Appendix 2

Table 2 Statistical Summary of Cases by Cultural Activation Type

Case Name		SOT [27]	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC [28]
			Installation Types	IF [29]	Function	Atmosphere Creation	PT [30]	
1. Electric Hotel *http://www.containercity.com/the-electric-hotel*		CO	Modular container-based construction	FX	Pop-up accommodati-on facility	Container morphology: floor-to-ceiling glazing, exposed industrial facade, nocturnal lighting ambiance	OW	ST
2. NDSM Wharf – Pop-up Container City *https://www.ndsmloods.nl/kunststad-map*		CO	Modular container-based construction	FX	Art performance venue	Container morphology: stacked containers, modular urban aggregation	IE	ST
3. NDSM Wharf *http://betaoffice.com/project*		SV	Modular container-based construction	FX	Art creation studio	Interior partitioning → "room-in-room"spatial logic; industrial structural elements retained	PM	LT
4. Wall Pavilion *https://mp.weixin.qq.com/s/NpVJ2nqDMl1FafbuMEGUzA*		PA	Ultra-thin exhibition module (lightweight metal + timber frame)	AD	Photography & Exhibition	Constrained sightlines through narrow apertures: a peephole-like exhibition experience; nocturnal backlighting creates a luminous façade	OW	ST

[27]SOT=Spatial Organization Type ; SI=Stand in ; SV=Subversion ; CO=Coexistence ; PA=Parasite ; PI = Pioneer

[28] UC=Usage Cycle ; ST=Short-term pop-ups ; PO=Periodic openings ; LT=Long-term temporary use

[29]IF=Intervention Forms ; FX=Fixed ; MB=Mobile ; AD=EasilyAssembled/Disassembled

[30]PT=Participation ; OW=One-way use ; IE=Interactive experience ; PM=Participatory modification

Case Name		SOT [27]	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC [28]
			Installation Types	IF [29]	Function	Atmosphere Creation	PT [30]	
5. City Book *https://mp.weixin.qq.com/s/NpVJ2nqDMl1FafbuMEGUzA*		PA	Transformable installation: foldable book-shaped module (timber/metal)	AD	Photography & Exhibition	Transformable multi-state space: mobile apparatus generates diverse spatial configurations; Viewing sequences guided by strategic openings choreograph an urban theater experience	IE	ST
6. Hutong Pop-up Laboratory *https://www.asla.org/2019studentawards/637554_Urban_Regeneration_With_Community_Building.html*		CO	Transformable installation: foldable exhibition wall units	MB	Historical Exhibition	Integration of historical and cultural elements: Community narratives conveyed through multiple media—sound, photography, crafts, etc.—embedded within the traditional hutong context through site-specific programming	PM	ST
7. RESONANCE OF SHADOWS *https://plastique-fantastique.de/RESONANCE-OF-SHADOWS*		SI	Plastic Inflatable Bubbles (hemispherical structures)	AD	Art Performance	Transparent envelope interacting with external landscape and light: Semi-translucent shell modulated by shifting tree shadows; integrated audiovisual projections	OW	ST

Case Name		SOT [27]	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC [28]
			Installation Types	IF [29]	Function	Atmosphere Creation	PT [30]	
8. TREES & TRACES *https://plastique-fantastique.de/TREES-TRACES*		SI	Plastic Inflatable Bubbles (hemispherical structures)	AD	Historical Exhibition	Transparent envelope interacting with external landscape and light: Semi-translucent shell responsive to diurnal light variations; interior displays authentic archaeological artifacts unearthed on-site	OW	ST
9. MODERNA MUSEET MALMÖ *https://plastique-fantastique.de/MODERNA-MUSEET-MALMO*		SI	Plastic Inflatable Bubbles (hemispherical structures)	AD	Art Exhibition	Transparent Envelope Interacting with External Landscape and Light: Externally, the transparent bubble integrates seamlessly with the museum architecture; internally, it screens art videos	OW	ST
10. 100 Jahre Revolution *https://plastique-fantastique.de/PNEU-REVOLUTION*		SI	Plastic Inflatable Bubbles (hemispherical structures); Vintage Carriage	AD	Historical Exhibition	Transparent Envelope Interacting with External Landscape and Light: The bubble structure mimics transparent street barriers, evoking collective memory of historical urban uprisings; inside the vintage carriage, historical narratives are displayed	IE	ST

Case Name		SOT [27]	Installation Types / Intervention Forms		Atmosphere / Functional Experience		PT [30]	UC [28]
			Installation Types	IF [29]	Function	Atmosphere Creation		
11. Hy-Fi：MoMA PS1 Temporary Pavilion *https://www.dezeen.com/2014/07/01/tower-of-grown-bio-bricks-by-the-living-opens-at-moma-ps1-gallery*		SI	Masonry Structure: Organic brick cylindrical tower	AD	Art Exhibition	Organic Form: Gaps between brick modules incorporate light-reflective film to create dynamic light-and-shadow effects; natural ventilation is enhanced by the tower’s height and organic geometry, which channels airflow	OW	ST
12. Palletscape ——Seoul Museum of Art *http://palletscape.kr/?p=79*		CO	Modular Assembly System: Stackable pallet-based construction	AD	Art Performance	Organic Form: Dual-sided projection screens paired with diffusive pallet materials generate a soft-lit, interactive field; seating is arranged in a surrounding configuration to foster engagement	IE	ST
13. Kreuzweg *https://concentrico.es/en/kreuzweg/*		SI	Passageway Structure: Black cruciform corridor framework	AD	Religious Experience	Fully Enclosed Space: A completely sealed, pitch-dark interior corridor	OW	ST
14. Abwab Pavilion 2017 *https://www.dezeen.com/2017/11/21/fahed-architects-bulbous-copper-pavilion-old-bedsprings-dubai-design-week/*		SI	Mesh Spherical Structure: Geodesic sphere constructed from repurposed mattress springs	AD	Art Exhibition	Organic Form: The spring-based structure creates a cloud-like visual effect; spiral layers enable subtle light filtration and shadow play	OW	ST

Case Name		SOT [27]	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC [28]
			Installation Types	IF [29]	Function	Atmosphere Creation	PT [30]	
15. Concerto (Elastic Band Installation) *https://www.sohu.com/a/208634997_650547*		CO	Transformable Installation: Elastic-band-based kinetic structure (morphable form)	MB	Historical Exhibition	Integration of Historical/Cultural Elements: Industrial elastic bands serve as the core structural component—capable of folding and unfolding—to emulate the operational logic of machinery	IE	LT
16. Rainforest *https://www.sohu.com/a/208634997_650547*		PA	Light Ribbon Installation: Fiber-optic ribbon lighting element	AD	Visual Experience	Organic Form: Optical fibers reveal varying textures and depths under daylight and night lighting, evoking the poetic atmosphere of “Misty Rain in Jiangnan”; undulating wave-like forms complete the sensory experience	OW	LT
17. Urbanimal *https://www.playablecity.com/projects/urbanimals/ https://lax.com.pl/portfolio_page/urbanimals/*		PA	Interactive Projection Installation	AD	Visual Experience	Interactive Lighting: Animated animal silhouettes in motion; light effects respond dynamically to viewers’ positions and movements, creating a collective “urban dance” experience	IE	ST

Case Name		SOT [27]	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC [28]
			Installation Types	IF [29]	Function	Atmosphere Creation	PT [30]	
18. Sonoscriptum *https://www.antoninfourneau.com/2021/09/12/sonoscriptum/*		PA	Interactive Projection Installation	AD	Artistic Interaction	Interactive Lighting: Gestures or body movements gliding across a surface generate luminous trails; trail colors shift along a spectrum from red to blue, modulated by musical pitch—linking auditory, tactile, and visual perception	PM	ST
19. Water Light Graffiti *http://www.waterlightgraffiti.com/wp-content/uploads/2015/04/WLG-parizoneadream-2013-photo-quentin-chevrier-2.jpg*		PA	Interactive Projection Installation	AD	Artistic Interaction	Interactive Lighting: Drawing with water on a wall triggers light points that coalesce into visible imagery, enabling real-time visual expression	PM	ST
20. Folly for a Flyover *https://assemblestudio.co.uk/projects/folly-for-a-flyover*		PI	Masonry Structure: Red brick construction	AD	Art Performance	Material Texture and Light: Absurdist forms construct narrative depth; the tactile grain of red brick combined with semi-transparent bead-curtain structures enriches sensory materiality	PM	ST

Case Name		SOT [27]	Installation Types / Intervention Forms		Atmosphere / Functional Experience		UC [28]
			Installation Types	IF [29]	Function	Atmosphere Creation	PT [30]	
21. The Jellyfish Theatre *https://www.structuredenvironment.com/jellyfish-theatre*		PI	Scaffolding / Steel Frame / Timber Frame: Scaffolding framework incorporating reclaimed materials (e.g., wooden pallets, theatrical set pieces)	AD	Art Performance	Organic Form: The exterior features stacked materials forming a dynamic, biomorphic silhouette; the interior employs collaged reclaimed materials, blending diverse colors and textures of recycled building elements	PM	ST
22. West Kowloon Bamboo Theatre *https://sheji.pchouse.com.cn/65/655212.html*		PI	Scaffolding / Steel Frame / Timber Frame: Bamboo-structured opera tent (xipeng) and market stall	AD	Art Performance	Integration of Historical/Cultural Elements: Bamboo poles, orange nylon netting, LED lights, and large decorative floral plaques collectively evoke an immersive atmosphere reminiscent of traditional Chinese opera tents (xipeng) and temple fairs	IE	PO
23. Play Open 2020 Market – Street Gallery *https://www.archdaily.cn/cn/950472/you-le-chang-2020shi-ji-uao-rui-tuo-she-ji*		CO	Scaffolding / Steel Frame / Timber Frame: Scaffolding with tarpaulin canopy and OSB (oriented strand board) panels	AD	Art Exhibition	Open-Air Rooftop: An accessible rooftop exhibition space atop the museum—compact in scale yet visually open and airy	OW	ST

Case Name		SOT [27]	Installation Types / Intervention Forms		Atmosphere / Functional Experience		UC [28]
			Installation Types	IF [29]	Function	Atmosphere Creation	PT [30]	
24. Theatre on the Fly *https://assemblestudio.co.uk/projects/theatre-on-the-fly*		CO	Scaffolding / Steel Frame / Timber Frame: S scaffolding combined with timber framing	AD	Art Performance	Transformable Polymorphic Space: A semi-enclosed, expandable theater design that can extend the stage outdoors or contract into an intimate indoor configuration, adapting flexibly to the requirements of different performances	IE	ST
25. Tiny Traveling Theatre *https://www.dezeen.com/2012/05/31/tiny-travelling-theatre-by-aberrant-architecture-2/*		SI	Modular Movable Unit: Miniature theater pod featuring a funnel-chimney apparatus, constructed from wood and metal components	AD	Art Performance	Fully Enclosed Space: The form pays homage to 17th-century coal-shed micro-concert halls: a small arched chamber featuring a chimney skylight and wooden partitioned seating creates a pocket ritual space.A giant acoustic funnel amplifies internal performances outward, generating curiosity and drawing external audiences in	PM	LT

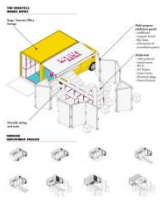
Case Name		SOT [27]	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC [28]
			Installation Types	IF [29]	Function	Atmosphere Creation	PT [30]	
26. Tea, Chocolate & Coffee *https://concentrico.es/en/tea-chocolate-coffee/*		CO	Modular Movable Unit: Central stage surrounded by five narrative modules: bar counter, bed, staircase, festejador (celebratory figure or festive element), and confessional booth	AD	Art Performance	Integration of Historical/Cultural Elements: Each module simulates a domestic space imbued with narrative suggestion, forming an enterable, immersive theater unit; the audience’s own movements and interactions become integral “stage events.”	PM	ST

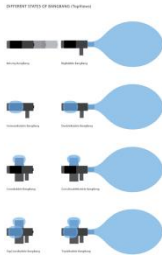
Source: Author’s own drawing

Table 3 Statistical Summary of Cases by Leisure and Activity Type

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
1. Greater Hazelwood Better Block 2024 *https://www.betterblock.org/our-work?pgid=mcwgrylf-5aa969bc-2ad6-4eb7-833d-9e6759fb5057*		CO	Ground graffiti delineates spatial zones; shipping container stalls; temporary stage	AD	Neighborhood Gathering	Ground murals	PM	ST
2. The Backyard Better Block 2024 *https://www.betterblock.org/our-work?pgid=mcwgrylf-fb27b2cc-ea6b-4787-a13e-3c719810fabc*		PI	Ground graffiti defines the area; container-based vendor booths; pop-up stage	AD	Neighborhood Gathering	Ground murals	IE	ST
3. Eastlake Street Fair Better Block 2024 *https://www.betterblock.org/our-work?pgid=mcwgrylf-383e15cb-45a3-482e-bbb4-0c35c24298cd*		SI	Floor markings / ground murals outline activity zones; modular container kiosks; temporary performance platform	AD	Neighborhood Gathering	Ground murals	IE	ST

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
4. Big Slide *https://assemblestudio.co.uk/projects/the-big-slide*		SI	Slide and grand stepped seating	A D	Entertainment Activities (Viewing & Performance)	Vibrant patterns (on slide surfaces)	IE	ST
5. Circo Aéreo *https://www.designboom.com/architecture/kogaa-circo-aereo-inflatable-ring-installation-empty-urban-spaces-01-31-2021/*		PI	Inflatable ring structure	A D	Temporary Stage / Event Venue	Semi-enclosed inflatable enclosure elements	IE	ST
6. Siluroño *https://concentrico.es/en/siluro no/*		PI	Figurative wooden installation	A D	Neighborhood Gathering (Lectures, Film Screenings)	Myth-to-structure translation: Physical installations inspired by local stories/legends (e.g., the catfish myth)	P M	ST
7. Suspended Hexagon *https://100architects.com/zh-hans/project/suspended-hexagon/*		CO	Crane-mounted hexagonal multi-functional module	M B	Entertainment Activities (e.g., Aerial Dining Table)	Anti-gravity suspension: Crane-hung platforms with multi-level geometric modules, evoking a futuristic aesthetic	IE	ST
8. T-Horse *https://cityrepair.org/thorse-mobile*		PI	Modified vehicle as spatial element: Retractable canopy	M B	Neighborhood Gathering (Tea Culture Sharing)	Mobile intervention spaces formed by retrofitted vehicles: A temporary roving teahouse featuring carpets and a bamboo canopy	IE	LT

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
9. Cricklewood Town Square *https://www.dezeen.com/2013/09/10/cricklewood-mobile-town-square-by-spacemakers/*		PI	Modified vehicle as spatial element: Foldable furniture	MB	Neighborhood gatherings (tea parties, chess tournaments, open-air cinema, etc.)	Mobile intervention spaces formed by retrofitted vehicles: A retro clock tower reimagined as a converted vehicle	PM	ST
10. Roaming Market *https://www.dezeen.com/2013/05/31/roaming-market-by-aberrant-architecture/*		PI	Modified vehicle as spatial element: Rooftop platform	MB	Performances and fortune-telling	Mobile intervention spaces formed by retrofitted vehicles: A 16th-century-inspired mobile unit colliding with contemporary colors and symbols	IE	PO
11. Urboteca *https://futurearchitectureplatform.org/projects/171170a8-aa29-4170-9563-43855a682c41/*		PI	Modified vehicle as spatial element: Foldable furniture	MB	Discussions and training sessions	Mobile intervention spaces formed by retrofitted vehicles: A pop-up office in the form of a cargo truck, integrated into community festivals	PM	PO
12. AEROPOLIS *https://plastique-fantastique.de/AEROPOLIS*		PI	Inflatable membrane structure	AD	Recreational activities (stargazing, yoga, performances, cultural talks)	Translucent membrane structures that interact dynamically with changing light conditions	IE	ST

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
13. LOUD SHADOWS *https://plastique-fantastique.de/LOUD-SHADOWS*		CO	Inflatable membrane structure	AD	Performances (experimental dance, live music integrated with forest landscape)	Translucent membrane structures that interact dynamically with changing light conditions	IE	ST
14. Bangbang *https://raumlabor.net/bang-bang/*		PI	Modified vehicle + inflatable membrane structure	MB	Hands-on workshops, film screenings, community meetings, stage performances	Translucent membrane + retrofitted vehicle as a distinct visual identity	PM	ST
15. UNIQLO Cubes *https://architizer.com/projects/uniqlo-cubes/*		CO	Grid-frame cube, skating rink	AD	Commercial activations and sports/leisure programs	Artistic pop-up installation (cubic form) merging retail and recreation: Pop-up fashion boutique integrated with an ice-skating rink	IE	ST
16. Summer Streets NYC *https://www.nyc.gov/html/dot/html/pedestrians/summerstreets.shtml*		CO	Themed activity installations	AD	Sports and recreational events (spectator performances, exhibitions)	Transformation of traffic function (from vehicular to pedestrian use), enhanced with diverse installations to amplify festive atmosphere	IE	ST
17. CLOUDS for Commons *https://futurearchitectureplatform.org/projects/7196392b-ad67-45f5-8255-7340fda76bc2/*		CO	Timber modules (hand-assembled furniture): Cubic module	AD	Community events (social gatherings, exhibitions, workshops)	Hand-assembled furniture: Modular wooden cubes	PM	LT

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
18. Get out the chairs! *https://concentrico.es/en/get-out-the-chairs/*		CO	Timber modules (hand-assembled furniture): Lattice/grille module	AD	Leisure reading	Hand-assembled furniture: Recreational seating constructed from combinable wooden blocks	PM	ST
19. Palletscape——Korean Playul *http://palletscape.kr/?p=826*		SI	Modular interlocking system: Assemblable pallet-based structure	AD	Recreational activities	Modular lettering: Korean characters assembled from recycled plastic pallets to embed cultural narratives into space	IE	ST
20. The Cineroleum *https://assemblestudio.co.uk/projects*		SV	Enclosing fabric drapes (as wall substitutes for light blocking	AD	Pop-up cinema	Adaptive reuse of existing structures: An old gas station paired with lightweight light-filtering fabric to create an immersive theater experience	PM	ST
21. The Floating Cinema *https://www.studioweave.com/projects/the-floating-cinema/*		SV	Repurposed transport vehicles: Converted boat hull	FX	Pop-up cinema	Repurposed transport vehicles (e.g., retired boats) integrated with new decorative elements	IE	ST

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
22. The 'Genesis'Floating Church *https://www.designboom.com/architecture/denizen-works-genesis-floating-church-east-london-10-30-2020*		SV	Repurposed transport vehicles: Converted boat hull	FX	Church services and community events (gatherings, lectures, etc.)	Repurposed transport vehicles (e.g., retired boats) integrated with new decorative elements: A vintage hull combined with a dynamic, kinetic roof structure	IE	ST
23. School of Narrative Dance *https://www.assemblestudio.co.uk/projects/the-school-of-narrative-dance*		SI	Sand-stage performance area; low circular perimeter wall	AD	Instructional programs (dance, drama, etc.) and workshops	Circular sand area evoking the ambiance of a circus ring	PM	ST
24. Stairway Cinema *https://ohnosumo.com/*		PA	Truss structure: Cantilevered timber truss system	FX	Pop-up cinema	Corner spaces enhanced with canopies: Creating a warm and contemplative outdoor cinema setting	IE	ST
25. Passage *https://concentrico.es/en/passage*		CO	Timber installation: Continuous timber framing system	AD	Recreational activities	Dynamic linear timber installation: Organizing pedestrian movement through rhythmic linear sequences	IE	ST

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
26. Across Boundaries *https://concentrico.es/en/across-boundaries/*		CO	Framing system: Modular timber frame system	AD	Recreational activities	In-between spaces under open frameworks: Lightweight timber frames creating "permeable, traversable thresholds"	IE	ST
27. BMW Guggenheim Lab Mumbai *https://architizer.com/idea/818475/*		SI	Framing system: Modular bamboo structure	AD	Neighborhood gatherings	In-between spaces under open frameworks: Bamboo structures inspired by Mandapa (traditional South/Southeast Asian pavilion) fostering cultural resonance; rope curtains and tensile canopies evoke ritualistic atmosphere	PM	PO
28. Alley Utopia *https://www.flickr.com/photos/jutfoundation/albums/72157626147463097/*		PA	Framing system: Rapid-deployment steel tube scaffolding system (quick-assembly/quick-disassembly)	AD	Neighborhood gatherings	In-between spaces under open frameworks: Exposed structural honesty that blurs the boundary between public and private realms	PM	LT

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
29. BMW Guggenheim Lab New York *http://www.chebrake.com/imp/impnews/2011/08/08/10377.html*		SI	Translucent grid-box structure	AD	Neighborhood gatherings	Suspended semi-transparent enclosures: Defining vertical spatial layers and mediating upper/lower zones	IE	ST

Source: Author’s own drawing

Table 4 Statistical Summary of Cases by Social Service Type

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
1. Chrisp Street On Air *http://www.containercity.com/the-electric-hotel*		PA	Indoor radio studio installation, featuring basic recording/broadcast equipment and set-building space	AD	Public opinion surveys and outreach campaigns (on culture, events, and policy)	Place broadcasting equipment in vacant retail units and regularly host events (concerts, movies, boxing, etc.)	IE	ST
2. Urban Micro Living Room *https://ishare.ifeng.com/c/s/7oGB87qgpHR*		CO	Temporary framing system (timber or steel)	FX	Community information hub: Providing local information exchange services	Frame structure creates semi-enclosed micro-spaces	IE	LT
3. ParkUp *https://www.parkup.tw/parkup-gt*		CO	Multi-functional lightweight framework: White horizontal bar system with integrated swings / hammocks / convertible display racks	AD	Multi-generational recreational facilities: Dedicated sports and activity spaces for children, youth, and seniors; Venue for public-benefit activities: Hosting community lectures, film screenings, and civic programs	Greenery arrangement, open design, prominent white color	PM	LT

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
4. RIDLEY'S Pop-Up Restaurant *https://wearethecityheroes2013.wordpress.com/2013/12/27/phase-3a-reference-1-ridleys-pop-up-restaurant*		CO	Temporary scaffold-based frame, incorporating a pop-up kitchen, dining terrace, and mechanical platform	AD	Community dining	Frame structure used to create an open restaurant and social space, with a unique food exchange mechanism displayed on a blackboard	PM	ST
5. Torino Olympic Village Housing Reuse *https://www.camerana.com/en/portfolio-items/villaggio-olimpico-area-residenziale/*		CO	Sustainably repurposed large-scale building ensemble	FX	Residential functions: Family housing and student dormitories	Furniture and interior renovation adapted to new usage needs	OW	LT
6. Orange Phonebooths *https://100architects.com/zh-hans/project/orange-phonebooths/*	 	PA	Upgraded small installation nodes (e.g., retrofitted vintage phone booths) with LED light boxes and multifunctional seating/furniture	FX	Convenience service nodes: Offering phone charging, coffee, and emergency contact support	Artistic form: "train-car-like" metal cladding reconstructs the original appearance; LED illuminated light boxes create a visual landmark; bright paint (orange) enhances recognizability	OW	LT

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
7. The Befriending Kitchen *http://toposmagazine.com/befriending-kitchen/ https://www.merretthoumoller.com/beyond-borders*		SI	Modular kitchen unit, equipped with stove, sink, table & chairs, and food-serving counter	AD	Community dining(Humanitarian meal assistance)	Mobile service pods, attract attention through colorful painting, offering convenient deployable and storable services for the community	IE	LT
8. Intermedio *https://concentrico.es/en/intermedio/*		CO	Temporary timber boardwalk	AD	Pedestrian access enhancement: Facilitating convenient walking routes into campus areas	Spanning across the garden, multiple steps are set without interrupting the shrubbery, providing a natural strolling experience	IE	ST

Source: Author's own drawing

Table 5 Statistical Summary of Cases by Economic Incubation Type

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
1. Frank's Café *https://practicearchitecture.co.uk/project/franks-cafe/*		PA	Temporary frame (scaffolding)	A D	Café	Red canopy creates strong visual identity; elevated panoramic view; rugged assemblage of scaffolding and reclaimed materials	O W	PO
2. Try-on-Truck (Pop-up Lingerie Store) *https://www.dezeen.com/2016/03/26/mobile-lingerie-shop-try-on-truck-saw-moa-online-retailer-architecture-design/*		PI	Modified vehicle	M B	Brand showcase, product experience, offline sales	Modified vehicle space evokes a sense of novelty; translucent glass curtain wall enables semi-peeping display; soft interior lighting	IE	PO
3. Wheely's Moby Mart (Autonomous Mobile Grocery Store) *https://www.dezeen.com/2017/06/28/wheelys-self-driving-moby-mart-grocery-store-holographic-shop-assistant-design-technology/*		PI	Smart autonomous vehicle chassis	M B	Unmanned retail, smart shopping experience	Intelligent and automated features: holographic assistant, data-driven personalized recommendations, transparent façade interface, smart lighting	IE	PO

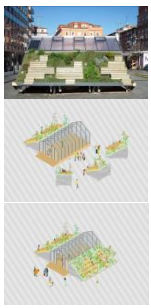
Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
4. Play & Open 2020 Market *https://www.archdaily.cn/cn/950472/you-le-chang-2020shi-ji-uao-rui-tuo-she-ji*		CO	Temporary frame (scaffolding)	AD	Temporary market	Blue tarpaulin canopy and orange sky lantern lighthouse elements create intense color contrast and a lightweight, floating sensation	OW	ST
5. McKeesport Better Block 2024 *https://www.betterblock.org/our-work?pgid=mcwgrylf-75e56767-1dd0-4992-a1a2-8017dae6e2a6*		SI	Container stall	AD	Temporary market	Enhance visual appeal and stimulate economic activity through ground graffiti and temporary installations (e.g., stages)	OW	ST
6. Greater Hazelwood Better Block 2024 *https://www.betterblock.org/our-work?pgid=mcwgrylf-5aa969bc-2ad6-4eb7-833d-9e6759fb5057*		CO	Container stall	AD	Temporary market	Enhance visual appeal and stimulate economic activity through ground graffiti and temporary installations (e.g., stages)	OW	ST

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
7. The Backyard Better Block 2024 *https://www.betterblock.org/our-work?pgid=mcwgrylf-fb27b2cc-ea6b-4787-a13e-3c719810fabc*		PI	Container stall	A D	Temporary market	Enhance visual appeal and stimulate economic activity through ground graffiti and temporary installations (e.g., stages)	O W	ST
8. Eastlake Street Fair Better Block 2024 *https://www.betterblock.org/our-work?pgid=mcwgrylf-383e15cb-45a3-482e-bbb4-0c35c24298cd*		SI	Container stall	A D	Temporary market	Enhance visual appeal and stimulate economic activity through ground graffiti and temporary installations (e.g., stages)	O W	ST
9. UNIQLO Cubes *https://architizer.com/projects/uniqlo-cubes/*		CO	Grid cube, skating rink	A D	Fashion retail, sportswear and casual wear	Artistic form (cube-shaped) pop-up store integrated with sports area: pop-up fashion store combined with skating rink	IE	ST

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
10. Faralda Crane Hotel (Amsterdam NDSM Wharf) *http://www.faralda.nl/*		PA	Container module, abandoned overhead crane structure	FX	Experiential hotel (accommodation + urban landscape experience)	Utilize the 50-meter-high structure’s suspended quality to create an “extreme experience”; industrial-style paintwork combined with urban graffiti	OW	LT

Source: Author’s own drawing

Table 6 Statistical Summary of Cases by Ecological Environment Type

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
1. Parking Day *https://agile-city.com/blog/parking-day/*		SV	Grass mats, temporary canopies, urban furniture, art installations	AD	Temporary park	Construct a "park-like" image through green lawns and bold signage to encourage public lingering and interaction	PM	ST
2. Poplar Assembly *https://concentrico.es/en/poplar-assembly/*		CO	Large-scale wooden planters with integrated seating	AD	Urban oasis	Use green vegetated walls to create the serene and tranquil atmosphere of an "urban oasis"; layout is irregular in form, with an overall enclosed boundary but intentional openings to ensure accessibility and openness	IE	ST
3. Montaña en la Luna *https://www.archdaily.cn/cn/890906/montana-en-la-luna-enorme-studio?ad_name=article_cn_redirect=popup*		CO	Gable-roof mobile building modules, demountable and relocatable landscape steps, solar energy installations	MB	Office, public gathering /discussion, urban oasis	Installation form mimics "mountain peaks," carrying clear visual symbolism; natural wood, greenery, and stepped platforms enhance both ecological quality and social atmosphere	IE	ST

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
4. urban bloom *https://www.archdaily.cn/cn/891820/shang-hai-an-fu-lu-cheng-shi-zhan-fang-kuai-shan-hua-yuan-aim-architecture-plus-urban-matters?ad_name=article_cn_redirect=popup*	 	SV	Modular assembly: wooden pallet units, vegetation units	AD	Temporary garden, urban leisure area	Abundant planting creates a strong “urban oasis” feeling; balloon-like containers cast dynamic light and shadow, generating a dreamlike ambiance; planters, steps, open lawns, and the urban backdrop together compose a multi-layered visual experience	IE	ST
5. Green Cloud *https://www.archdaily.cn/cn/902389/shen-zhen-cheng-shang-lu-yun-zhu-bo-she-ji-lian-he-gong-she*	  	PI	Modular assembly: cubic vegetation modules	AD	Green roofs, micro public spaces	Simulated natural topography (vertical/Z-axis variation) delivers an earth-connected “green hill” experience; pavilion-like nodes add spatial interest and user engagement; community activities such as vegetable gardening and concerts enrich everyday life in the space	PM	LT

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
6. Make it Rain *https://concentrico.es/en/make-it-rain/*	 	CO	Modular assembly: brick structures; sunshade and rain canopies	AD	Urban microclimate regulation, public recreation area	Evaporative cooling via brick-and-water system invites public participation (e.g., watering); shade canopies create a soft, enveloping spatial quality	IE	ST
7. Fleeting Forest *https://assemblestudio.co.uk/projects/fleeting-forest*		SI	Tree nursery, straw bale walls	AD	Urban oasis	Urban oasis" evokes a woodland imagery; small-scale enclosures foster a contemplative atmosphere	OW	ST
8. Square and Round Pavilion *https://www.flickr.com/photos/jutfoundation/albums/72157626147454613/*		PA	Timber dome installation	AD	Rooftop activity area, exhibitions	Dome structure establishes a sense of ritual and serves as a visual focal point; timber materials convey lightness and approachability	OW	ST
9. Hy-Fi: MoMA PS1 Temporary Pavilion *https://www.dezeen.com/2014/07/01/tower-of-grown-bio-bricks-by-the-living-opens-at-moma-ps1-gallery/*		SI	Masonry structures: organic brick cylindrical towers	AD	Art exhibitions	Organic forms: gaps between bricks combined with light-reflective films generate dynamic light-play; natural ventilation enhanced by tower height channels airflow	OW	ST

Case Name		SOT	Installation Types / Intervention Forms		Atmosphere / Functional Experience			UC
			Installation Types	IF	Function	Atmosphere Creation	PT	
10. Southwark Lido (London Architecture Festival 2008 - EXYZT) *https://old.constructlab.net/projects/southwark-lido/*		SI	Temporary frames (wood/steel tube); vegetation units	AD	Urban garden, community leisure and entertainment	Mobile gardens reinforce the green ecological identity; pools, saunas, and mist systems evoke a relaxed resort-like atmosphere	OW	ST
11. Straw Auditorium *https://practicearchitecture.co.uk/project/straw-auditorium/*		PA	Straw bales (used as walls and seating steps); simple lighting system	AD	Art performance venue	Material selection: natural straw creates a raw yet warm spatial texture	OW	PO

Source: Author's own drawing

Appendix 3

Table 7 List of Figure and Table Sources

Chart Title	Source
Figure 3-2 Culture and Cultural Heritage	https://www.coe.int/en/web/culture-and-heritage/strategy-21
Figure 6-10 Turin Municipal Master Plan (PRG)	geoportale.comune.torino.it
Figure 6-11 Latest Plan for Lotto I	comune.torino.it
Figure 6-12 General Layout Plan of the Turin Olympic Village	Garberana. (n.d.). Planimetria del Villaggio Olimpico, 2006. Retrieved September 2, 2018, from http://www.garberana.com

Source: Author’s own drawing

Appendix 4

Expert Questionnaire on the Evaluation of the Influence of Urban Spatial Factors on Pedestrian Flow

Instructions: This questionnaire aims to collect your professional judgment on the capacity of different urban spatial factors to attract and guide pedestrian flow. Your responses will be used to construct a scientific evaluation model of pedestrian flow influence. The questionnaire is anonymous and is expected to take about 1–3 minutes to complete. Thank you for your support. *(All information will be used for research purposes only and kept strictly confidential.)*

(1) Basic Information *(For background analysis only; strictly confidential.)*

Affiliation	□ University Teacher / Researcher □ Government Planning Department □ Design Institute / Architectural Firm □ Transport Engineering Company □ Other: _____
Discipline	□ Urban Planning □ Transport Planning □ Landscape Design □ Architectural Design □ Other: _____
Years of Professional Experience	□ <5 years □ 5–10 years □ 10–20 years □ >20 years

(2) Explanation of the Rating Scale

Based on your professional knowledge and practical experience, please evaluate the attraction and aggregation capacity of the following 16 urban spatial factors with respect to the daily pedestrian flow of a given site, including commuting, leisure, and consumption. A 1–6 rating scale is adopted, defined as follows:

Score	Degree of Influence
1	**Very strong:** has a very strong attraction to pedestrian flow and can easily form an urban-level center of vitality.
2	**Strong:** has a strong attraction to pedestrian flow and maintains high daily activity.
3	**Moderately strong:** can effectively guide or gather pedestrian flow and has a certain degree of vitality.
4	**Moderate:** has a moderate level of attraction, but is not a primary attraction point.
5	**Weak:** attracts pedestrian flow only during specific periods or under certain conditions.
6	**Very weak:** has very limited attraction to pedestrian flow.

(3) Urban Spatial Factor Rating Table

Please tick the corresponding score (✓) on the right side of each item, and briefly explain the reason if necessary (optional).

No.	Spatial Factor	1	2	3	4	5	6	Reason
1	Commercial Facilities							
2	Green Space / Parks							
3	Leisure and Entertainment Facilities							
4	Mixed Commercial-Residential Land							
5	Cultural Venues (Museums, Theatres, etc.)							
6	Bus Stops / Metro Stations							
7	Public Service Facilities (Hospitals, Schools, etc.)							
8	Public Open Space (Squares, etc.)							
9	Landmark Buildings or Structures							
10	Residential Areas							
11	Road Intersections / Hubs							
12	Office Building Clusters							
13	Urban Arterial Roads							
14	Parking Lots (Surface / Underground)							
15	Urban Secondary Roads / Local Streets							
16	Development Strategy of Surrounding Areas (Related to the Site)							

(4) Open-ended Questions (Please answer briefly.)

1. Are there any other important spatial factors that have not been listed? Please specify them and explain their mechanisms of influence on pedestrian flow.

2. Which external factors may significantly alter the actual pedestrian-flow performance of the above factors? (e.g. time, weather, policies, events)

3. Do you have any suggestions for this evaluation framework?

Thank you for taking the time to complete this questionnaire. Your professional insights are of great significance to promoting refined urban spatial design.

If follow-up interviews or result-sharing are needed, we will contact you through the contact information you have provided, if applicable.

攻读硕士学位期间取得的研究成果

一、已发表（包括已接受待发表）的论文，以及已投稿、或已成文打算投稿、或拟成文投稿的论文情况**（只填写与学位论文内容相关的部分）：**

序号	作者（全体作者，按顺序排列）	题　　目	发表或投稿刊物名称、级别	发表的卷期、年月、页码	与学位论文哪一部分(章、节)相关	被索引收录情况

注：在“发表的卷期、年月、页码”栏：
1 如果论文已发表，请填写发表的卷期、年月、页码；
2 如果论文已被接受，填写将要发表的卷期、年月；
3 以上都不是，请据实填写“已投稿”，“拟投稿”。
不够请另加页。

二、与学位内容相关的其它成果（包括专利、著作、获奖项目等）

1. 2024 年 12 月，在第四届当代艺术与设计大赛（地域·融合）中，设计作品《罅隙》《规则外界》荣获二等奖；
2. 2024 年 12 月，在第四届当代艺术与设计大赛（地域·融合）中，设计作品《寻》《双轴律动》《盘旋环心》获三等奖。

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I also express sincere appreciation to the faculty of the School of Architecture for their instructive contributions during my studies, which established a robust theoretical foundation for this work. Furthermore, I am grateful to the members of the thesis defense committee for their time and constructive feedback amid demanding professional commitments.

Special thanks are due to my classmate Chang Xinyue, whose steadfast encouragement sustained me through the arduous writing process. Your companionship served as both a source of resilience during moments of uncertainty and a calming presence that fostered optimism, enabling me to navigate academic challenges with clarity and composure. This enduring camaraderie will remain deeply cherished.

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This thesis is dedicated to all who have inspired and sustained me.

四、答辩委员会决议书

答辩委员会对学位（毕业）论文的评语（主要内容包括：1.论文选题与综述；2.学术水平与创新性；3.论文综合能力表现；4.学位（毕业）论文答辩情况；5.存在的不足之处和建议等）

该学生的论文选题精准切入"存量更新"时代背景下奥运遗产再利用的核心痛点。选题直面奥运村赛后面临的"高维护成本"与"空间闲置"的难题。该生突破传统"大拆大建"或"静态保护"的固有思路，创造性地引入"临时都市主义"作为理论工具与实践路径，体现了对前沿理论的敏锐把握与创新应用。

论文在建筑学硕士论文中实现了难得的大样本量化研究，系统收集、编码了历届56个奥运村及全球115个临时都市主义实践案例。研究方法科学严密，综合运用SPSS层次聚类提取临时策略原型，结合空间句法对都灵案例进行视域与人流潜力的量化分析，构建了"类型识别—问题诊断—介入类型—再生策略—后续发展"的完整方法论闭环。研究为全球类似巨型事件遗产的微更新与活力重塑探索出一条高性价比的破局路径，理论拓新与实践导向均十分显著。

该生展现出卓越的跨学科素养与严谨的学术态度，面对小样本局限时巧妙结合定性分析，结论水到渠成。最终提出的模块化、可拆卸设计方案及策略工具箱，兼具可落地性与全球推广价值，体现了从理论到实践的有效转化，综合研究能力突出。

论文在以下两方面有待深化：一是聚类分析受奥运会可用样本总量限制，存在统计学局限，建议引入定性比较分析法（OCA）增强科学性；二是未对临时策略的经济成本与商业效益进行核算，需补充经济可行性评估以提升方案说服力。

根据投票结果，答辩委员会一致同意陈大齐通过硕士学位论文答辩，同意其毕业，并建议授予建筑学硕士学位。

论文答辩日期：2026 年 5 月 21 日　　答辩委员会委员 5 人

毕业表决票数：通过（5）票；不通过（0）票

学位表决票数：通过（5）票；不通过（0）票

答辩委员会决议（打"√"）：

毕业：通过（✓）；不通过（　）

学位：通过（✓）；不通过（　）

答辩成员签名	（主席）　Emanuele Morezzi（陈可代）
答辩秘书签名	陈可