A Review of CiteSpace-Based Research on Youth Community Renewal

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Abstract: *This study examines youth-friendly community renewal, focusing on the needs of youth groups. Various strategies for community renewal have been proposed globally, and synthesizing these studies is crucial for China's youth community renewal. Using the CiteSpace analysis tool, literature from 1985 to the present is reviewed. Key findings include: (1) Limited exploration of specific youth group needs; a focus on diverse groups and more human-centered design is recommended. (2) Insufficient research on youth interior design; attention should be given to youth's social and privacy needs with flexible space options. (3) Youth community planning is case-specific and lacks universal frameworks; adapting international evaluation systems to local contexts is suggested. This study contributes to advancing youth community research and offers guidance for renewal efforts in China.*

Keywords: *Youth; Youth Apartments; Youth Communities; Research Review; CiteSpace*

1. Introduction

Youth groups play a crucial role in the global population. In 1995, the United Nations adopted the first Agenda for Youth, emphasizing the need to address youth issues during urbanization[1]. In 2017, China issued its first youth development plan, highlighting the importance of comprehensive support for youth[2]. By 2022, the Party Central Committee prioritized the development of youth-friendly cities, launching 17 pilot cities, making youth community renewal a focal point for scholars[3].

Extensive research, both domestically and internationally, has been conducted on youth community renewal, focusing on meeting the needs of youth. Scholars have proposed renewal programs that address the various needs of youth—housing, gathering spaces, social interaction, and entrepreneurship—and identified youthful vitality, complexity, and diversity as key characteristics of a youth community.

Recent research has seen rapid growth, particularly in understanding youth needs, spatial use, community planning, and research system development. There have been advancements in research perspectives and methodology, contributing significantly to the renewal of youth communities. However, most current studies focus on design strategies, and there is a pressing need to synthesize and evaluate existing research. Traditional literature analysis methods struggle to capture the evolving trends and hotspots in youth community renewal. Therefore, this paper utilizes the CiteSpace tool to visualize and analyze domestic and international research, aiming to provide insights and future directions for youth community studies in China[4].

2. Data sources and research methodology

The study was based on the China Knowledge Network (CNKI) and Web of Science Core Collection (WOS) databases for literature search, operated on March 29, 2024. Based on the CNKI database, with topic=("youth apartment" OR "youth community" OR "youth group" OR "sharing design ") AND literature type = (academic journals) as keywords for searching, and 327 documents were obtained after excluding irrelevant disciplines; based on the WOS core ensemble database, we searched with theme = ("Youth Community" OR " Youth apartment" OR 'Youth' OR 'Shared design') AND literature type = (Article) as keywords for searching, and 1048 documents were obtained after excluding irrelevant disciplines. 1048 documents were obtained after excluding irrelevant disciplines.

By using CiteSpace (6.3.R1) software to visualize and analyze the literature and data, a knowledge map of domestic and international literature on the topic of youth community renewal was generated for the time range of 1985-2024, and through the visual expression of co-occurrence map, cluster map, and

time-zone map, we sorted out the overall development of the research on youth community renewal and the key hotspots, and summarized the current stage of research on the theory and practice of youth community renewal, and carried out a multi-disciplinary research on the topic of youth community renewal. It also summarizes the current stage of youth community regeneration research in terms of theory and practice, and carries out a multi-faceted research review.

3. Research process and field overview

3.1. Analysis of Research Trends

CiteSpace tool was used to organize the data for the literature. In the keyword co-occurrence map, the research direction of youth and community renewal is characterized by "large dispersion and small aggregation", except for the basic keywords such as "youth apartment" and "youth group". In addition to the basic keywords such as "youth apartment" and "youth group", the research directions of "community building", "urban renewal", "public space" and "interior design" are characterized by "large dispersion and small aggregation", The frequency of keywords such as "community building", "urban renewal", "public space", "interior design", and "shared design" is also high, indicating that the field of youth community-related research is gradually developing. In the keyword clustering diagram (Figure 1), the keywords contained in many clusters other than "#0 youth (apartment)" basically cover all kinds of high-frequency nodes, and the clusters between the clusters are interconnected and extended outward, implying that the research on the youth sharing community is gradually expanding in depth. In the timeline map (Figure 2), the high-frequency keywords related to "youth" appear in different time nodes and are interrelated with other keywords, indicating that the research process of youth community renewal is driven by various factors.
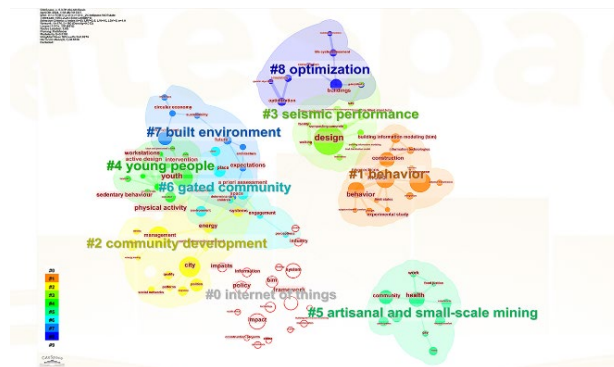

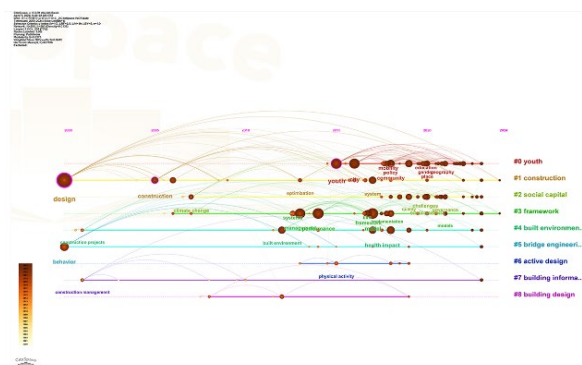*Fig. 1 Clustering of domestic and foreign keywords*

Figure 2 Domestic timeline mapping

3.2. Analysis of research process

Based on the analysis of comprehensive factors such as the emergence of keywords at different times (Fig. 3), policy background, academic activities, and important theoretical perspectives, this paper divides the research related to youth community renewal into the following three stages.
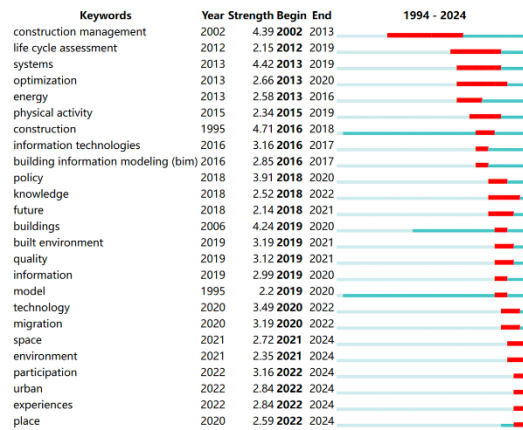
Keywords	Year	Strength	Begin	End	1994 - 2024
construction management	2002	4.39	2002	2013	
life cycle assessment	2012	2.15	2012	2019	
systems	2013	4.42	2013	2019	
optimization	2013	2.66	2013	2020	
energy	2013	2.58	2013	2016	
physical activity	2015	2.34	2015	2019	
construction	1995	4.71	2016	2018	
information technologies	2016	3.16	2016	2017	
building information modeling (bim)	2016	2.85	2016	2017	
policy	2018	3.91	2018	2020	
knowledge	2018	2.52	2018	2022	
future	2018	2.14	2018	2021	
buildings	2006	4.24	2019	2020	
built environment	2019	3.19	2019	2021	
quality	2019	3.12	2019	2021	
information	2019	2.99	2019	2020	
model	1995	2.2	2019	2020	
technology	2020	3.49	2020	2022	
migration	2020	3.19	2020	2022	
space	2021	2.72	2021	2024	
environment	2021	2.35	2021	2024	
participation	2022	3.16	2022	2024	
urban	2022	2.84	2022	2024	
experiences	2022	2.84	2022	2024	
place	2020	2.59	2022	2024	

Figure 3 Keyword emergence

(1) The first stage: the beginning of sprouting (1985-2009)

Following the United Nations' youth program issued in 1995, research on youth community renewal began. During this period, 151 papers were published. Domestic scholars focused on youth apartments and housing needs, discussing design strategies for a wide range of youth groups, with several notable practical cases[5，6]. International research, on the other hand, centered on architectural technology for building renovation, evaluating aspects like building performance and practicality. This stage marked the foundational development of knowledge around housing design for youth.

(2) The second stage: deepening exploration (2010-2017)

In the second stage, research on youth community renewal expanded, with 219 publications. Core journals like the Journal of Architecture began publishing related studies. Scholars focused on the daily use of spaces like youth apartments, schools, and offices, incorporating technologies like green building and BIM[7,8]. International research also began to address the needs of specific youth groups, such as marginalized populations (e.g., poor youth, international students, and post-war youth), emphasizing more humanistic social care. This phase broadened the scope of youth group needs and deepened the focus on human-centered design.

(3) Third stage: diversified development (2018-present)

Following the release of China's Medium- and Long-Term Youth Development Plan (2016-2025) in 2017, research saw a dramatic rise, with 1,004 papers published. Domestic scholars explored a range of new youth living models, including future apartments, green apartments, and symbiotic communities. Attention also shifted to diverse youth groups, such as empty nesters and young people living alone, addressing their personalized needs[9]. Internationally, scholars focused on youth from various racial and gender backgrounds, integrating these concerns into urban development and planning. This phase saw a diversification of academic research on youth communities, incorporating architectural, urban, and social justice perspectives.

4. Research Hot Spots

According to the content of the acquired literature, based on the analysis of CiteSpace tool, combined with the keyword clustering to summarize, the three research hotspots of "the living needs of youth groups", "youth space design", and "youth-friendly community planning" are chosen to sort out the research in the field of youth community renewal in combination with practical activities and theoretical research, The three research hotspots of "youth-friendly community planning" are selected to summarize the research in the field of youth community regeneration by combining practical activities and theoretical research.

4.1. Youth Groups' Life Needs

The housing needs of youth groups are always around the process of youth community renewal; at the same time, the daily life trajectory of youth groups and more needs derived behind them also need to be targeted for reflection and response(Figure 4).

(1) The housing needs of youth groups are fundamental to the study of youth community renewal. Scholars have highlighted that many youth face significant housing challenges, particularly in rental markets[10]. These challenges vary depending on factors like family background and social environment. Research has proposed solutions like shared apartments, focusing on improving housing conditions for youth in different contexts.

(2) Beyond basic housing, youth communities must also address the social and privacy needs of young people. Studies suggest that designs should cater to both privacy and social interaction. Proposals have been made for strategies that meet these needs, and some scholars argue that youth should be involved in the community design process to ensure their needs are fully addressed[11].

(3) In addition to the general needs of youth, there is a need to focus on the requirements of special youth groups. Researchers have explored the unique challenges faced by various subgroups, including rural youth, youth in consumerist societies, small-town youth, homeless youth, student youth, queer youth, low-income youth, and Muslim youth[12]. These studies offer diverse perspectives and solution strategies tailored to the distinct needs of these groups.

Figure 4 Co-occurrence map interception

4.2. Design of Youth Use Space

In the construction and renewal of youth communities, scholars at home and abroad have researched from various aspects such as urban public service facilities, communities and their supporting facilities, and indoor space design, and put forward applicable design programs for the above(Figure 5).
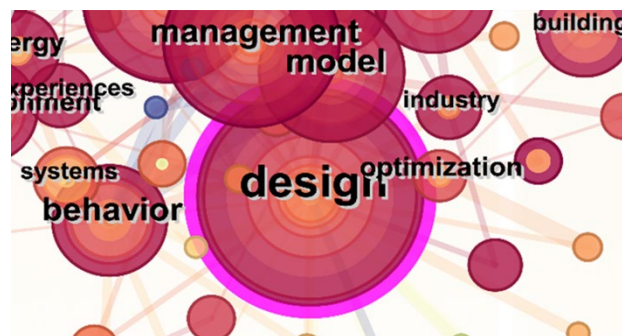

Figure 5 Co-occurrence map interception

(1) The concept of a "15-minute living circle" has been introduced, emphasizing the importance of accessible education and medical facilities near youth communities. Studies on the spatial distribution of urban vitality for different age groups highlight that public spaces are crucial for youth[13]. Improving urban public service facilities is believed to strengthen the social networks of youth in urban areas.

(2) Research has focused on understanding the diverse needs of youth groups and improving public spaces within communities. Scholars propose enhancing community living environments to make them more attractive, comfortable, and sustainable. The importance of creating positive social spaces is emphasized, with theories suggesting that improved urban services can foster better social networks[14]. The concept of "virtual communities" and the use of landscape assessment methodologies, particularly from North America, have been introduced to enhance community spaces, focusing on creating positive social atmospheres.

(3) For indoor space renewal, scholars advocate for flexible, shared spaces, diverse living options, and personalized designs to suit the lifestyles of youth[15]. The goal is to maximize the functionality of spaces to support social interaction and the needs of young residents.

4.3. Youth-friendly community planning

Youth-friendly city, is the direction of urban development that the world is gradually concerned about, this concept will gradually introduce the needs of youth groups into the focus of research; the same in the urban community, can also be flexibly utilized to complete the community design of this concept(Figure 6).

(1) Scholars have explored key elements and pathways for youth-focused urban planning in Europe and the United States, finding a positive correlation between youth development and economic growth. They emphasize the importance of involving youth in the urban planning process and developing spaces that attract them. Flexibility, collaborative cooperation, and mutual-benefit mechanisms are seen as crucial for promoting youth development[16].

(2) In the context of youth community renewal, scholars have proposed various types of youth development spaces and planning strategies. These include integrating multi-scale residential spaces and developing new residential systems to meet the needs of diverse talent. The concept of "resilient communities" has been introduced, suggesting that youth communities should be more adaptable and flexible, playing a key role in promoting community innovation and urban action planning[17]. Access to urban spaces for young people is emphasized as essential for fostering community engagement and development.

Figure 6 Co-occurrence map interception

5. Conclusion

This paper explores the research hotspots and research frontiers in the field of youth community renewal at home and abroad through clustering analysis, and classifies and summarizes the research process of youth community renewal based on keyword clustering and timeline mapping, and obtains the following conclusions.

(1) Scholars have focused on the daily needs of youth, such as housing, as well as the special needs of specific youth groups, forming strategies for community renewal. However, the exploration of special youth groups remains shallow, and the concept of these groups is often limited. It is recommended to broaden the scope of research, focus on diverse youth groups, and enhance humanistic care in design. Additionally, more attention should be given to the socialization, sharing, and privacy needs of youth, offering inclusive design solutions from a holistic, multi-dimensional perspective.

(2) Research has largely focused on urban public service facilities, community infrastructure, and indoor spaces, exploring design strategies for youth spaces. However, there is limited research on youth interior space design. It is suggested to expand research on interior design with youth-specific attributes, meeting the residential needs of youth while better accommodating their social and privacy needs, both when alone and in groups.

(3) Drawing on youth-friendly city research, scholars have enriched the design strategies for youth communities. However, most youth community planning is case-specific and lacks broader, universal guidance. It is recommended to utilize existing evaluation systems for communities, public spaces, and

parks from both domestic and international contexts. These should be adapted to the current state of youth communities in China to build youth-friendly theories, policies, and evaluation models tailored to local conditions, providing clearer design guidelines for the development of youth communities.

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