

Research on Urban Social Spatial Structure from the Perspective of Feminist Geography

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ABSTRACT

With the continuous development of society, improving the quality of life for women and enhancing their sense of happiness and social belonging have become crucial issues in contemporary urban spatial planning. In 2006, the United Nations launched the "Women-Friendly Cities" public care project, emphasizing the integration of a gender perspective into urban governance. Since then, women-friendly initiatives have gradually become a focus of urban planning. Scholars both domestically and internationally have conducted a series of studies from various feminist perspectives. This paper, from the perspective of feminist geography, selects commuting spaces, public spaces, and landscape spaces as research subjects to analyze the current state of urban spatial planning in China and proposes corresponding reform suggestions.

KEYWORDS

Feminist Geography; Urban Spatial Planning; Current State; Reform

1. INTRODUCTION

Globally, women are not only a minority in terms of numbers but also occupy a disadvantaged position in economic, political, and cultural spheres. Feminism posits that the phenomenon of male dominance and female subordination is still prevalent in human society and that gender equality must be achieved through social movements. However, for a long time, the field of geography has overlooked gender issues. On one hand, this field has historically excluded female researchers; on the other hand, "gender blindness" is not uncommon, as geography has ignored women's spatial behaviors and experiences in human-environment relationships, let alone addressing gender inequality issues. For example, between 1893 and 1913, the Royal Geographical Society in the UK debated whether to admit female members, with many conservatives arguing that women were merely spectators in geographical research and could not become rational and rigorous geographers. They feared that admitting women would turn the society into a social club.

With the rise of women's consciousness in the 1960s and 1970s, the second wave of feminism significantly impacted the "gender blindness" in human geography research. Through the efforts of a group of scholars, feminist thought began to merge with human geography research, analyzing seemingly neutral places and spaces from a social gender perspective. Gender discrimination in "male-constructed environments" was revealed, giving birth to feminist geography, which has since become one of the major schools of thought in contemporary geographical research.

2. OVERVIEW OF FEMINIST GEOGRAPHY RESEARCH AT HOME AND ABROAD

2.1. International Research

Feminist geography originated in the 1960s and 1970s, developed in the 1990s, and has continued to evolve to meet the needs of the times. In 1949, Simone de Beauvoir, in her book *The Second Sex*, proposed the important idea that women are not born but made. Zarinsky published the first paper on women's geography in 1973, titled *Women in Geography: A Brief Factual Overview*. In the same year, Pat Burnett's *Gender and Urban Structure* was the first work to analyze geographical issues from a social gender perspective, marking the embryonic form of feminist geography. In 1980, the Women and Geography Study Group was established by the Institute of British Geographers, aiming to encourage women's research and improve their status in the field of geography, thus formally establishing feminist geography. In 1994, the academic journal *Gender, Place & Culture* began publication, with the subtitle "A Journal of Feminist Geography," reflecting the founders' clear intention to pioneer a new discipline.

The core concept of feminist geography is "sex," encompassing gender and sexual orientation. Notably, it not only focuses on women but also considers men. For example, when examining cultural landscapes, researchers consider sexual desire, gender, and sexual orientation, and consider whether masculinization or feminization occurs during the process of othering.

2.2. Domestic Research

Feminist geography research in China started relatively late. In 1988, the concept of feminism was introduced to China through Song Guochen and Gu Chaolin's introduction of Western feminist geography research progress. Although most empirical research in China's feminist geography is based on Western theories and is still in its infancy, it has fertile ground for development, with unique local characteristics in terms of challenges and opportunities. China's development is in a special stage that integrates pre-industrial, industrial, and post-industrial societies, as well as pre-modern, modern, and post-modern ideologies, which is quite different from the development trajectory of Western societies. Therefore, Western feminist geography theories cannot fully explain local phenomena in China. Moreover, Western feminist geography research emphasizes colonialism and racial issues, which are not as significant in the Chinese context. Consequently, the development direction of feminist geography research in China will differ significantly from that in the West. Under China's unique economic conditions and social changes, specific groups such as women from the one-child policy era, women from the two-child era, rural left-behind women, women in remote mountainous areas, and urban migrant women will become unique research subjects.

3. ANALYSIS OF WOMEN'S URBAN SPATIAL NEEDS

3.1. Physiological Needs

Physiological characteristics are the main factors influencing women's spatial perception. Research shows that women generally have smaller body sizes, lower physical strength, and are more prone to fatigue. In terms of physiological perception, women are more sensitive to temperature, humidity, and odors. In terms of physiological metabolism, women have faster metabolic rates. Additionally, pregnant and breastfeeding women have specific needs for nursing rooms.

3.2. Psychological Needs

Due to women's emotional nature, spatial environmental factors have a more pronounced impact on women's emotions compared to men. Given their physiological vulnerability, women require a greater sense of spatial security and are more concerned with territoriality and privacy.

3.3. Aesthetic Needs

Women are more thoughtful and prefer romantic overall styles. In terms of color schemes, soft color combinations, curved design elements, and soft materials are more appealing to women. They also place greater emphasis on the details of space, focusing on comfort and refinement.

3.4. Travel Needs

Women's physiological and psychological characteristics determine their behavioral patterns. For instance, due to a sense of insecurity, women subconsciously choose "marginal" areas for rest or activities. In terms of spatial perception, women have poorer orientation and boundary recognition, making them more prone to getting lost in spaces. In terms of attire, women often wear high heels and carry handbags, and some women also need to care for children.

4. CURRENT STATE OF URBAN SPATIAL PLANNING FROM A FEMINIST GEOGRAPHY PERSPECTIVE

4.1. Commuting Spaces

Commuting is an issue every office worker must face, but in most large cities, workplaces are not very favorable for women. For most women, commuting time and distance are limited, which restricts their employment and job choices. Since household chores and childcare are highly time-sensitive (e.g., cooking, picking up children), most women must balance commuting time with home time, making them more inclined to choose jobs close to home with flexible hours to accommodate childcare. Overall, female workers are concentrated in city centers, with a scattered and less dense distribution in suburban areas. The residential distribution of female workers is closely related to their workplace locations. Research shows that women working in city centers have a broader residential distribution, while those working in suburbs tend to live closer to their workplaces. For example, around airports, due to the nature of airport services and their distance from city centers, female workers prefer to live nearby, resulting in the closest residential-workplace spatial connection in airport areas. A study on the residential-workplace relationship of women in Beijing found that the average commuting distance for women is shorter than that for men, indicating that women's commuting range in cities is smaller. Additionally, women working in suburban areas tend to live near their workplaces, creating a close residential-workplace connection and forming "female communities." Regarding the issue of limited job choices due to residential-workplace separation, empirical research in Guadalajara, Mexico, found that residential-workplace separation negatively affects women's opportunities to obtain formal employment.

Commuting also imposes significant psychological pressure on women. The characteristics of multi-purpose travel extend working hours and create time mismatches, adding to the psychological burden for women in different professions. Research shows that commuting time has a clear negative impact on women's sleep time and mental health, with this negative effect being more pronounced. Compared to men, women score significantly higher on self-assessment indicators of psychological stress.

4.2. Public Spaces

Public spaces include transitional spaces and rest areas, with spatial behaviors mainly involving leisure and transportation. Users include all users, management personnel, cleaning staff, waiting individuals, and resting individuals, which guides the gradual transformation of commercial spaces from public to auxiliary private spaces.

Globally, women have only gained the right to work in public spaces in the last century, but many cities did not consider women's physiological needs when constructing public spaces, making it difficult for women to enter, use, and stay in these spaces. To this day, some industries remain closed to women, resulting in related spaces excluding women. Additionally, due to insufficient data collection and analysis on women in human engineering studies, many spaces and facilities do not adequately accommodate women's physiological characteristics and usage habits, making women more vulnerable to safety and health risks than men.

Public restrooms are one of the earliest urban spatial elements that feminist geography scholars have focused on. Current issues with public restrooms include: first, an unreasonable number of stalls. Research by Xu Chunli and others on public restrooms in various regions of China shows that, given equal area, the ratio of female to male restroom stalls is 1:1.75, indicating a severe imbalance. Second, unreasonable spatial arrangements. While male restrooms often have more space than needed, female restrooms frequently lack sufficient space. Third, poor management. In some areas, public restrooms with basic hygiene management cannot be used normally by women. Fourth, incomplete coverage of needs. Some regions have not considered the subdivision of usage needs when constructing public sanitation systems, such as the lack of gender-neutral restrooms and family restrooms.

Nursing rooms are an important public facility for meeting the needs of women with infants and young children, increasingly common in various venues. However, the construction of nursing rooms in China is still in its early stages and remains inadequate in many aspects. For example, in shopping malls, most have set up nursing rooms, but the number of nursing rooms is still far from meeting the demand. Nursing rooms are mostly single rooms, unable to accommodate multiple users at once, and often lack necessary privacy features like curtains or screens. The original intent of designing nursing rooms was to provide convenience for mothers and infants, so they should not only include breastfeeding facilities but also consider the restroom needs of women with infants. However, in China, such functional spaces are often labeled as "nursing rooms" or "mommy care rooms," with internal facilities mainly including simple foldable changing tables, breastfeeding sofas, tea tables, handwashing sinks, and bottle warmers, lacking consideration for restroom needs.

4.3. Landscape Spaces

From a feminist geography perspective, there is a trend of "neutralization" and "homogenization" in landscape planning. While contemporary society emphasizes gender equality, influenced by established design concepts and models, a "neutral" perspective dominates planning, treating men and women as a "genderless" group and addressing their psychological experiences and needs in a homogeneous manner. Women and men differ not only in physical structure but also in psychological and physiological aspects. However, influenced by traditional concepts, even when humanized design concepts are proposed and people-oriented design principles are applied, a single male perspective still dominates how various planning issues are viewed and addressed, neglecting women's psychological experiences. For example, underground parking lots or pedestrian underpasses are often built around public green spaces and residential green areas. Due to the neglect of women's psychological experiences, these designs often have flaws such as excessive enclosure, large spatial areas, lack of natural light, and reliance solely on artificial lighting, causing fear in women when they enter. Additionally, due to the significant difference in physical strength between men and women, women are more vulnerable to criminal attacks, especially in areas like public green space pergolas and seating areas.

5. URBAN SPATIAL REFORM FROM A FEMINIST GEOGRAPHY PERSPECTIVE

5.1. Commuting Space Reform

In residential area design, connections between different zones should be strengthened, and convenient commuting options such as walking, cycling, driving, and public transportation should be provided for women. In future public transportation construction, gender perspectives should be considered. For example, bus stops should have enhanced nighttime lighting or surveillance cameras to increase women's sense of security. Gender issues should be integrated into the planning, implementation, supervision, and evaluation of transportation projects, making gender considerations a primary goal in the transportation field. In the construction of service facilities in marginal communities, suitable job opportunities for local women should be considered. Generally, low-value jobs that are locally needed and do not require specific micro-locations should be prioritized. Adequate service facilities and sufficient job opportunities are essential for building a harmonious society and achieving stable development in marginal urban areas.

5.2. Public Space Reform

To address the shortcomings in public restroom configurations, the number of male and female restroom stalls should be adjusted based on actual needs, optimizing the spatial allocation ratio to alleviate the shortage of female restrooms. On the basis of adjusting spatial ratios, the internal layout of restrooms should be optimized to reduce route crossings and unnecessary travel distances, thereby helping to alleviate the spatial pressure caused by insufficient stalls. After construction, dedicated personnel should be hired to manage and clean the restrooms, ensuring they remain clean and hygienic. In commercial spaces, "women-only spaces" can be created to cater to women's living and social needs. By eliminating male restrooms, female spaces can be expanded to accommodate more functional facilities, better serving female consumers. In the overall environmental atmosphere, using wood tones and muted reds as the main color scheme, combined with aesthetically pleasing furnishings, creates a soft and minimalist spatial form that highlights the female ideology of the space, meeting female consumers' pursuit of a refined lifestyle. Semi-private spaces can also be set up, including restroom stall corridors, nursing areas, and external children's restrooms. These spaces should accommodate behaviors such as children using the restroom, queuing, nursing, waiting, grooming, and cleaning, serving ordinary women, mothers with infants, and children. While these spaces are relatively private, they still have a public nature, requiring simultaneous interaction with facilities by multiple users. Therefore, enhancing users' psychological experience is essential, with thoughtful details reflecting the operator's care.

5.3. Landscape Space Reform

In urban landscape design, direct access should be ensured by considering entrance and exit locations, avoiding the need for additional passageways. Good visibility should be maintained, and designers can integrate above-ground green spaces to prevent complete isolation of underground spaces. For example, planting bamboo or other plants above ground can allow sunlight to enter through ventilation openings, reducing women's fear. Additionally, glass partitions can be installed on the ground to prevent rainwater from entering, with the planting pool area being larger than the ventilation openings. Entrances and exits to parking lots and subway passages in green spaces should be short and wide, allowing natural light to penetrate. Corners and turns in entrances and passages should have good visibility, and mirrors can be installed for improvement. Pedestrian overpasses should be preferred over underground passages where possible. In landscape design, surveillance facilities should be considered, especially in public spaces like subway stations and parks, to reduce

crime. Surveillance equipment can be integrated with landscape elements, such as plant or animal sculptures with surveillance functions.

6. URBAN SPATIAL REFORM FROM A FEMINIST GEOGRAPHY PERSPECTIVE

Feminist geography research systematically and structurally examines the issues women face in urban spaces, covering perspectives from micro urban spaces to the macro global context, showcasing the diversity, regionality, and complexity of women's issues. Urban spatial planning plays a significant role in shaping culture and customs and enhancing people's sense of happiness. Research from a feminist geography perspective facilitates the overall arrangement of women-friendly spaces in urban planning, effectively avoiding piecemeal solutions in specific spatial practices. It is also a necessary path to creating a fair and just social environment.

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