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GENDER-SENSITIVE URBAN DESIGN

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ABSTRACT

Today's, the relationship between gender and urban space is one of the controversial debates in the world affecting the organization of living space from different social, cultural, and economic aspects. Women-friendly city is a place where its design and planning are based on gender mainstreaming with the maximum participation of women in decision making process. It can be stated that in the mutual relationship between women and urban spaces, the concepts such as gender urban space become the factors for making limitations for women to use urban spaces including some social norms, limiting responsibilities, limiting feelings, limited sources, and space skeletal barriers. In order to remove such limitations and achieve the concept of women-friendly city, planning with a certain process seems necessary. At the end of the study, Seoul was introduced as the best women-friendly city in 2010 and the present study aimed to find a guide for designing and planning the women-friendly cities.

Keywords: Gender, Urban Space, Women-Friendly

INTRODUCTION

Cities are basically the places for living. The structure and design of cities and neighboring units as well as different urban functions significantly affect our culture, values, lifestyle, and relationships. It can be said that our collective lifestyle is directly affected by our living environment. Cities belong to the men and women living in and citizenship begins from these cities and neighboring units. Designing the urban infrastructures and activities in the environment should be in such a way to allow men and women participate in daily activities to the maximum degree. In fact, based on the change of women's traditional role, their significance in the formal economic system and their new role in social division of labor, quality, and type of their presence in city have changed and a new set of patterns is being formed that cities should encounter such a fact.

Historical background

In order to mention the historical background, it seems necessary to study the subject from two perspectives of historical context (social currents) and skeletal context.

- Historical context: The first key subject emerging in the expansion of feminism is "right equality" debate. The first wave of feminism which began in the late 18th century and resulted in the late 19th century demanded the resistance to legal inequality, masculism, and obedience of women imposed by men (focus on equality). The second wave of feminism which emerged especially in the US during the late 1910s and 1970s dealt with understanding the issue why men are different from women rather than how

women can obtain their position and status equal to men (focus on difference) (Farzaneh, 2006).

- Skeletal context: American researchers studied the relationship between women and urban environment in the mid-17th century. Urban activities and participation of women began during the 18th and 19th centuries. Many practical measures began in the 20th century.

1993: The first document on gender-sensitive urban design guide was formed. This document entitled “women in artificial environment” was prepared by the Women's Association in Tasmania and dealt with the instinct of society and change of women's role.

(With an emphasis on access, peace, and security) in 1994: The Organization for Economic Co-operation and Development (OECD) raised the issue of women in city.

(Residence, services, and urban environment) in 1995: The main focus of the fourth World Conference on Women (1995) in Beijing was on the progress and empowerment of women in areas such as human rights and women as well as women and poverty, i.e. the areas where the women's position required a considerable change.

1996: The United Nation's Conference on Human Settlements (Habitat II) was held and the following manifest was signed: “An agreement on any opportunity for complete access and participation of women in decision-making for city and provision of whether essential for the fair distribution of power”. In addition, the practical measures, using resources, participating in governmental measures, and using the local and urban power were emphasized.

1998: The International Union of Local Authorities (IULA) held a meeting in Zimbabwe to study the effect of these rules on local governments and local powers and announce the necessity of gender justice in governments.

2000: The 23d Special Session of the General Assembly of the United Nations in 2000 considered “gender equality, development and peace for the 21st century” as its motto. The general study of the passed historical trend indicated that the raised issues had mostly a skeletal aspect and then social issues especially “participation” were added to the aspect over time.

Challenges for sex and gender

- *Terminology of sex and gender*

In most studies, sex (male and female) refers to the biological difference between bodies while gender (masculine and feminine) refers to the social structure and a set of differences between men and women (Ibid, 1).

- *Gender justice*

Perhaps the simplest definition of gender justice is: gender justice occurs when the available opportunities are high for men and women and they attempt to maintain human dignity together for changing the attitudes, beliefs, behaviors, roles, and responsibilities in the work environment, family, society, and global market.

In fact, the main goal of gender justice is achieving the justice between men and women to guarantee it to achieve the sustainable development. Gender justice of policies and effective plans for men and women in future is obtained when we realize that any policy or development plan affects men and women differently. One group believe that gender justice refers to assimilating women like men while the basis and goal of gender justice are based on



empowering and promoting women's participation as the pioneers of change in economic, social, and political processes.

The definition of women-friendly city

Women-friendly city can be defined by different gender attitudes. It seems that the closest attitude to justice is the focus on difference instead of focus on equality. In fact, gender justice should be first defined for defining the women- friendly city. Gender justice does not refer to the equal dealing with all groups but means different policies for different groups, so that the aim of these policies is to achieve gender justice. The purpose of this attitude is highly clear: "Specifying and eliminating the causes and manifests of inequality between men and women".

- The definition of women-friendly city by the United Nations

Women- friendly city is a place where women have an active role in planning, decision-making, and daily life and the equal social, economic, and political opportunities are provided due to gender justice. Women- friendly city pursues the following goals:

1. Creating a facilitating and encouraging for observing the rights of women and girls (by planning, policies, and setting rules)
2. Making potential in local governments for planning and developing gender justice
3. Making potential in all non-governmental organizations (NGO) and relevant organizational agents for supplying gender justice- the internal and effective interactions for promoting the position of women and girls.
4. Promoting the level of public awareness on the rules related to women and girls (Ibid, 2)

In order to increase the presence of women in urban spaces, first the limiting factors for women should be recognized. Identifying and eliminating these factors make women attend the urban spaces with mental and physical peace and security. Such factors include social, legal, cultural, and skeletal limitations.

- Gender-sensitive urban space

Men have been historically effective on many urban studies and quality of public spaces due to many reasons. Gender-sensitive nature of urban space called by Carp, Stone, and Yulz (1991) can be observed in the way urban space limits the women's mobility. Such a limitation is applied by inducing the patterns of movement and behavior based on fear and limited access as well as some paradigms about the role of women in the urban society.

- Limitations of women for using space

In general, these limitations include some social norms, limiting responsibilities, limiting feelings, and limited sources of space for the use of women. Limiting social and gender norms, unfair and limiting social conditions, limiting and excessive public rules and policies, and limiting design and planning are considered as limiting social norms. The responsibility of ding house work, taking care of children, and alike can be mentioned as the limiting responsibilities. Limiting feelings include stress, anxiety, or fear and finally the limited sources refer to limited time, limited money, limited mobility, isolation, limited social interaction, limited opportunities, and lack of service (Seifaei, 2005).

- The skeletal behavior of environment for women

At this section, the skeletal behavior of environment for women are studied. These issues are stated in three general groups of security, furniture, and small spaces such as W.C and sidewalks, flooring, and paths in the following Tables. In order to scrutinize these studies,



security was divided into three groups of public spaces, transportation, and general problems of space and in each group, the current problems (based on the increased quality of women's life) were given in detail.

Table 1. Skeletal-security barriers

Table 1. Security	Public spaces	Existing problems)Barriers to improving the quality of life)	details
		<ul style="list-style-type: none"> streets, alleys, sidewalks, open spaces and abandoned parks Frequency of single function (single-functional spaces) Using the restrooms or telephone booths Harsh behaviors and harassment in public spaces (vandalism and graffiti) Stray animals 	<ul style="list-style-type: none"> The need for lively, late and lasting places Supporting the lively streets and cafes as cultural-security aspects <ul style="list-style-type: none"> Preventing vandalism and graffiti The precise placement of restrooms and telephone booths Hospitalizing stray animals to care for them <ul style="list-style-type: none"> Organizing spaces with a perspective towards increasing mobility Creating visible and readable spaces (increasing the space security and intimacy) Spaces without deadlocks and blind views <ul style="list-style-type: none"> Spaces without distinct boundaries Preventing the limiting or blocking vision in landscaping <ul style="list-style-type: none"> Using light in space is highly important (parking lots, sidewalks, parks and public spaces, etc.) The presence of signs where there is a need for clear understanding.
Table 1. Security	transportation	<ul style="list-style-type: none"> Using personal cars (especially in the evening) instead of all public transport methods Using the parking spaces especially late at night Abandoned underground roads fast movement of cars 	<ul style="list-style-type: none"> Increased control of public transportation and stations Stations and areas of public transport areas should be sufficiently bright and have adequate control. In addition, the connection of these spaces with parking lots and buildings should be appropriately designed and organized. In public parking lots, the places close to the entrance door should be allocated to women's parking lot. Appropriate lighting of underground roads and, if possible, allocating some of their points to the uses like ticket booth and auctions <ul style="list-style-type: none"> Increasing the safety of sidewalks
	General problems	<ul style="list-style-type: none"> The lack of spatial continuity in public places The presence of disturbing and drunken men Going out at night 	<ul style="list-style-type: none"> Employing committed personnel and providing space control and security The presence of complaint facilities in emergency situations to improve mental safety



Table 2. Skeletal barriers-public spaces and vehicles

Table 2. Tools and equipment of public spaces	details	
	Locating the waste tank	<ul style="list-style-type: none"> The distance between the two tanks should not be more than 50-100 meters and, if necessary, it can be up to 100 meters. Locating the tanks should be in places with large traffic of pedestrians and open spaces, around bus stations, and pedestrian lines.
	The location of communication means	<ul style="list-style-type: none"> Phones should be at least one meter above the ground. On the other hand, telephone booths should be used for the disabled. Phone booths should be away from traffic (at open space and close to pedestrian areas and the areas with secure access)
	Locating the public restrooms	<ul style="list-style-type: none"> The distance between the two public restrooms should not exceed 600 meters. <ul style="list-style-type: none"> Access to the restrooms should be easy and secure. Separate restrooms should be defined for women in public services.
	Stations	<ul style="list-style-type: none"> Providing long-term and short-term stay with welfare and security is necessary <ul style="list-style-type: none"> Appropriate lighting is required. Stations should be easily seen. (The arrangement of furniture should be based on the same idea) <ul style="list-style-type: none"> Providing the ability of communication Equipping against bad weather conditions is necessary Information boards should be clear and understandable. (Urban maps with different languages, scheduling plan) Underground roads should be equipped with elevators and ramps
	Bridges and differences in the heights of sidewalks	<ul style="list-style-type: none"> Appropriate mobile elevated platforms and elevators should be considered. Platforms should be safe especially for children and need rail or glass fence. <ul style="list-style-type: none"> Appropriate lighting should be provided.
	Tunnels and underground roads	<ul style="list-style-type: none"> Entry and exit points should be clear and distinct. <ul style="list-style-type: none"> Lighting should be provided during the day. Inside and around the main arteries, tunnels and underground roads should be equipped with adequate equipment such as shopping malls, etc. (for long-term daily use) Appropriate mobile elevated platforms and elevators should be considered
	Places for sitting	<ul style="list-style-type: none"> They should be in the safe and distant areas far from vehicles They should be equipped against adverse weather conditions. They should be designed in such a way to be usable for adults and children.
	The quality of fountains, waterfalls, etc.,	<ul style="list-style-type: none"> These items enhance the quality of urban life and are the factor for visual beauty and development of functional diversity. Such equipment requires careful safety and should be enclosed with a fence so that children can move around peacefully)



Table 3. Skeletal barriers- sidewalks and paths

Table 3. sidewalks, flooring, and routes	Details	
	Considerable points on the construction of sidewalks	<ul style="list-style-type: none"> • Category of use: <ul style="list-style-type: none"> • The slope should not be too high and there should not be any sharp edge (A slope of 8-7% is acceptable) • Moving should be between height differences with ramps next to the stairs. • Waterproof, sturdy, soft, and non-slippery materials should be used for flooring. The sidewalk edge should be clearly defined and have a low angle. <ul style="list-style-type: none"> • Flooring varieties should be used to guide people. • Category of comfort: <ul style="list-style-type: none"> • Outdoor and indoor space facilities in stores and markets in bad weather conditions should exist adequately • Awnings, bulge of building and arrangement of chairs should be in such a way that to be used in adverse weather conditions. <ul style="list-style-type: none"> • Appropriate lighting should be provided. • Access should be provided with the shortest routes • Pedestrian areas and public transport facilities should have adequate access. <ul style="list-style-type: none"> • Full separation of drivers and pedestrians • Separation of moving people and sitting people to provide maximum security and comfort
	Considerable points on flooring	<ul style="list-style-type: none"> • Category of use: <ul style="list-style-type: none"> • Usability and functionality are very important. • The minimum sidewalk width is 1.35 meters. For women, this size should increase up to 2 meters for an easy passage. <ul style="list-style-type: none"> • Category of health: <ul style="list-style-type: none"> • Pedestrians, especially women and children, need serious protection to harmful gases. This protection has a skeletal manifest: for example, observing the appropriate distance between the sidewalk and the pedestrian • Pedestrians should be protected from noise pollution. (Creating an appropriate distance between the driver and the pedestrian) <ul style="list-style-type: none"> • Other cases: <ul style="list-style-type: none"> • Driving Institutions should teach their trainees about pedestrian caution issues.
	Considerable points on the construction of routes	<ul style="list-style-type: none"> • Category of use: <ul style="list-style-type: none"> • Pedestrians should not be forced to move on the surfaces with varying heights. The ground level should belong to pedestrians. In some areas, allocating an underpass or footpath is necessary (using escalators or automatic signs at intersections for wheelchair users) • The presence of a sound warning system for the blind is necessary. • Repetitive warnings should aim at the comfort of children and the disabled.

Planning process

A coherent and efficient plan is one of the significant and effective measures to achieve the current concepts in gender-sensitive design. This plan is performed for a better understanding and more effective measures. Analysis in this plan is performed with a gender attitude. Thus,

the investigations are performed both for men and women. This plan is a factor for creating a clear image of the status for urban competent government and considers the following issues:

1. The special needs of women and men at different activity levels
2. The number of single-parent women and men in the operational range of the plan.
3. The number of women who own a house, rent a house, or live with another family
4. The percent of men and women using urban services (e.g. public transportation or recreational activities)
5. The percent of men and women having a sense of insecurity in the environment

Four main steps in this plan include: 1) Measuring the situation. 2) Developing the strategic plan, 3) Evaluating the plan, and 4) Evaluating periodically.

Empirical evidence

South Korea is a masculine society and the women in this country are dissatisfied with most priorities to men in the cities. For this reason, the urban managers of South Korea implemented the “urban plan with centrality of women” to create a happy environment for women, improve life conditions, and encourage them to have special participation. The urban authorities of South Korea believed that a society is happy when the women are happy there.



Figure 1. Seoul international festival



Figure 2. A sidewalk in Seoul



Many measures have been taken in Seoul since 2002 such as:

Measures in 2002:

- Holding the public meeting of Women's Center
- Announcing the recorded rules and regulations
- Publishing the goals of women-friendly plaza in the first meeting of Seoul Women's Committee

Measures in 2003:

- Opening the women-friendly plaza
- Opening the Seoul Women's Center
- Having a legal authority for launching the Women Development Center
- Explaining the principles of Women's institutes

Measures in 2004:

- Preparing a report based on lifetime education facilities, knowledge development, and human resources

Measures in 2005:

- Starting the research project of metropolis governmental policies on women (starting to use the research and development departments)
- Planning for the progress of Women's institutes
- Giving separate functions to Seoul Women's Center and women-friendly plaza

Measures in 2006:

- Having the second executive regulation at the Women's Right Center
- Opening the women-friendly park plaza
- Launching the Family and Women Foundation
- Launching the Women's Skill Development Center

Measures in 2008:

- Holding the Global Summit of Women in 2008
- Holding the cultural-family festival on equal rights

Measures in 2009:

- Setting up the Seoul women-friendly website (access, quality evaluation, validation)
- Opening and registering the WIN service exclusively
- Launching the International Metropolitan Women's Network
- Achieving the third rank in evaluating the metropolis governmental management
- Achieving the best integrated management on behalf of SMG

In addition to the measures related to institutionalizations or virtual networks for women and different above-mentioned plazas, other measures such as the issues related to women and family policy, environmental and cultural issues, and the problems related to transportation were conducted. Such issues made Seoul to be selected as the top women-friendly by the United Nations in 2010.

A guide to gender-sensitive urban design

Based on all the above-mentioned issues, it seems necessary to discuss an instruction for designing the urban spaces. For this purpose, the macro and micro objectives are mentioned after explaining the provisions of women-friendly city prospect:



- *Environmental prospect*

With the final objective of identifying and eliminating the causes and manifests of inequality, the environmental prospect refers to:

Creating the sufficient infrastructure and facilities related to taking care of children, eliminating the zoning, and decentralizing the uses, improving the access status of pedestrians (urban configuration and design quality), equal access to facilities and services in public urban spaces, improving the transportation status (private and public) for women, strengthening the social interaction, reducing the distance between private and public areas (work/house), considering the perceptual principles of women in design (connection, totality, taking care, daily life, subjectivity, feelings, complexity, and flexibility), reducing the distance of facilities between the city and suburbs, strengthening the mixed use, increasing the level of safety and security for women, improving the employment status of women, strengthening and encouraging women to participate in decision-making and design process, having diversity in residential types, and considering the women's activity pattern in design.

- *Macro goals*

1. Promoting the quality of infrastructure for the effective presence of women in the urban space
2. Promoting the quality of use and required activity in the spaces considered by women
3. Promoting the quality of urban space for more interaction and presence of women
4. Promoting the social presence of women in space

- *Micro goals*

First group (dependent on macro goal 1)

- Providing the facilities related to taking care of children as an urban infrastructure
- Promoting the quality of pedestrian access and public transportation in accordance with the activity pattern and needs of women



Figure 3. The outdoor activities of children





Figure 4. Secure public transportation with easy access

Second group (dependent on macro goal 2)

- Designing the public and private areas in accordance with specific patterns of women's activities.
- Having flexibility in artificial environment design and development to remove a higher number of different fields
- Creating the work/life neighbor ding units for eliminating duality in public and private areas
- Supplying the services (recreation and fun) of women's needs in public open spaces for promoting their more presence and interaction in city



Figure 5. The interactive urban space in Seoul

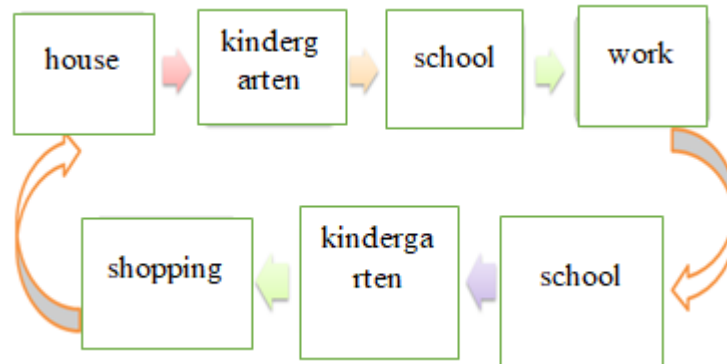


Figure 6. The complicated system of women's activities.

Third group (dependent on macro goal 3)

- Increasing the safety and security level of women in city with relevant specific techniques (like CPTED principles)
- Having a multi-central structure, anti-zoning, and centralization



Figure 7. The principles of parking lots



Figure 8. Active wall with possibility of surveillance

Fourth group (dependent on macro goal 4)

- Strengthening the presence of women in all steps of design and decision-making process
- Promoting the awareness and education in design and development for enhancing the level of sensitivity in experts to gender in the artificial environment (Ibid, 1)

CONCLUSION

Cities have had a long role in guiding the social life. However, the experience of women in urban life differs from men. Women use the artificial environment differently than men because they are given different forms, traditions, roles, and responsibilities.


It can be said that gender-sensitive urban design attempts to create fair opportunities for men and women with gender justice approach. The comprehensive development of city with social, legal, cultural, economic, and skeletal attitudes as well as fair infrastructures for women and



men are of great importance. In general, promoting the quality of life is possible by combining gender in different urban structures appropriately.

In order to achieve an urban competent government, creating equal opportunities to access different sources for women and men as well as supplying the sustainability through gender justice are significant. In this regard, the participatory approaches and presence of women in decision-making process are of great significance. The presence of an appropriate social-skeletal context in city is a factor for eliminating the limitations of women's presence in urban spaces. Thus, the appropriate urban design and planning for supplying more happiness, peace, and security of women in daily life in city is inevitable. The guide to gender-sensitive urban design can be explained by using all the learned affairs. The principles of design can be achieved by dividing the urban design into five layers (land use system, movement and access system, skeletal form system, public space system, and urban landscape system) and considering the perceptual principles and differences between women and men in urban spaces. On the other hand, the presence of women's bases on the local government is necessary to apply the plans. Such bases are directly related to the Local Justice Commission, Municipal Council Justice Commission, and gender units. Finally, the access to different dimensions of the subject is provided by using the two factors of appropriate urban design and planning.

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