# Collaborative Participation Approach of Urban Design, from Idea to Design (Heravi Square, Tehran)*

Seyed Abdolhadi Daneshpour**[1], Zahra Qafari-azar[2]

1. Associate Professor in Urban Design, Iran University of Science & Technology, Tehran, Iran.
2. M.A. in Urban Design, School of Architecture and Environmental Design, Iran University of Science & Technology, Tehran, Iran.

## Abstract

**Problem Statement:** Designing cities without the participation of the people will provide a passive, inhuman and boring city whose citizens will be indifferent to the future of the city. Therefore, given the complexity of contemporary cities and the inefficiency of traditional methods, providing appropriate methods and tools for better communication, co-operation and collaboration between experts and residents of a metropolitan area seems necessary.

**Research objective:** The concept of citizenship participation is directly related to the concept of democracy, and its importance becomes evident when the active citizen is manifested in the city and the development of the city is achieved through cooperation and participation of people. In this case, the citizen is considered to be anactor who actively tries to determine his / her fate and attains a desirable status, and the future of the city is considered important to him / her. This can be the ultimate goal of a participant-oriented city, and it is important to note that this concept should be applied to the urban design process and programs.

**Research methods:** The present research has a theoretical-practical structure. To answer the research concern, the "analytical-adaptive" method has been used to analyze the opinions of the people and experts and to adapt to the principles and process of urban design. Also, it has used direct methods, indirect methods, group engagement and mental storms to take advantage of public participation.

**Conclusion:** The results of the research indicate that in general the opinions of experts and people who use an urban place can be different, coordinated and sometimes contradictory. Therefore, the important thing is the right to express oneself by all users and actors of a place. An urban design expert as a catalyst can accelerate and facilitate this process. This research presents a model in the form of a study of the Heravi Square, a process for designing urban space with the participation of people and experts and in terms of collaborative participatory design methods. This process consists of three main stages: (1) public information, (2) design workshops, (3) feedback.

**Keywords:** *Collaborative Urban Design, Collaborative Partnerships, Public information, Feedback, Heravi Square.*

## Introduction

Traditional planning methods can no longer satisfy the growing demands on sustainable urban planning in regard to factors such as complexity, problem size, and level of detail and these limitations make the development of new approaches necessary. Expert knowledge as well as insights from stakeholders and community members needs to take part equally in the decision-making process since they are responsible for a broad understanding and acceptance of final planning decisions. Therefore, a participatory framework which integrates needs and requirements of stakeholders is needed (Kunze, Halatsch, Vanegas,Maldaner Jacobi, Turkienicz & Schmitt, 2011, 895).Complexity and multiplicity are influencing the social and environmental context of contemporary urban planning, hereby challengingthe practices of urban design and planning. But within the complexand relational urban context new possibilities of approaches andtools can be applied in planning cultures (Rasmussen, 2012).

It seems that in our country,participatory urban planning has been remained only at the level of ideas and basic surveys of people.The main issue in this research is the involvement of people and citizens in problem-solving and idea-making process of design and planning in an urban space. On the other hand, in order to achieve collaborative design, a detailed understanding of the design process is important to clarify the role and impact of each of the mentioned groups.Therefore, this paper will evaluate two basic issues:

1. How contemporary urban rules can emphasizeon complexity of cities and adapt to participatory planning methods.

2.Studyingthe urban design process and presenting a comprehensive and effective model that can involve citizens at all levels of design and planning. Therefore, the hypothesis of this study debates that participatory urban design is a topic beyond pure theory and requires a departure from the theoretical subjects to the feasible and practical aspects whichneeds a variety of processes, methods and techniques.

## Literature review

Urban design, as an artthatimproves thequality of public environments, , intends to make city a better place forpeoplewith regard to social, ethnic and historical characteristics of citizensand also structural and physical requirements of the city. In this case, besides providing the comfort and well-being of citizens, this artwill meet their emotional and mentalneeds.

The ultimate goal in urban design is to improve the environment qualityofthe cities that people live. Participative design can also be achieved if the people, authorities, and professionals are involved in the decision-making process. But unfortunately in the field of urban design, the demands of the people are generally absent, and most citizens are just observers of projects, and designers and planners make decisions for them regardless of their point of view (Bahrainy, 2010, Aghayi, Ramazanipour, Ahadi & Abdi, 2013). Therefore, it is essential to consider all stakeholders in an urban design project (Fig.1).

The future of democratic planning, as proposed by Jeb Brugmann in Welcome to theUrban Revolution, is to allow all parties to be involved so that they co-design, co-buildand co-govern to
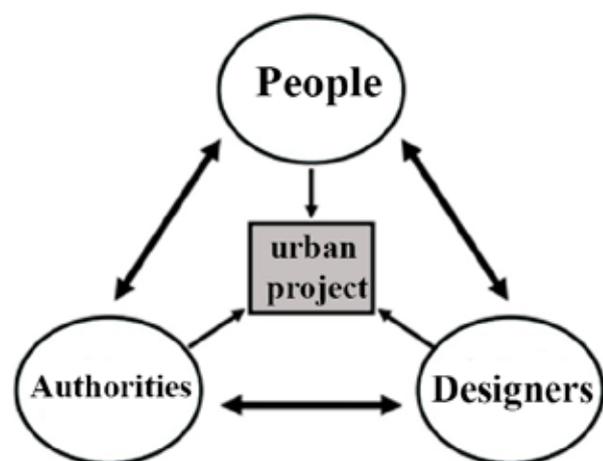


Fig.1.Collaborative Design Process. Source: Atkins, 2005.

their shared advantage. He calls this a 'citysystem' where residents,community leaders, investors, developers and professionals co-create the city (Johnson, 2011).

Looking at contemporary urban planning, we can understand that the role and contribution of the people as the main decision maker arenot properly explained and often decisions are made without regard to the characteristics, capabilities and desires of those who are affected most.In this case decision-making process is from top to bottom and without sufficient understanding of the context and dimensions of the issue; thereforeit would ultimately produce unexpected results, and public participation in these projects would be limited to people's contributions to the municipality or related organizations.The preparationof the manner of thepeople presence, especially the inhabitants of urban areas, in the process of preparing and implementing urban plans is a necessity that requires new approaches. It should also be acknowledged that most studies in participativeurban planning fields are mostly about planning and management, and a very few studieshave been done to operationalize public participation in urban design (RazaghiAsl, Samadi Hosseinabad Heydari, 2016, 62).

As well as proving the importance of the "human experience of space", the issue of citizen participation and addressing the variousneeds of different social groups arealso the new concerns of urban design. Donald Appellard (1861), by distinguishing the two main types of urban design, under the titles of "Total Urban Design" and "Pluralistic Urban Design", defends pluralism theory in design and introduces a pluralistic city whichconsiders needs, goals, and abilities of all social groups. During this period, the involvementof users in the urban design process becomes important, and it is argued that delegating urban and environmental design to a small group of professionals fundamentally means disabling others and denying "the right to self-expression" by other humans.Similarly, Jonathan Barnet (1995), a pioneer of urban design, criticized the purely artistic and elitist view of urban design during the neo-urban design period in his recentresearch.

He alsobelieved that urban design is not like presenting a painting or sculpture. Urban design cannot express one's will and logic (Golkar, 2003,12).

Different approaches have been proposed during the development and completion of environmental quality concepts in residential areas.Policymakers' viewpoint about understanding and defining the quality of the urban environment is based on two different expert-based and audience-based approaches.

In the audience-centered perspective, there are different levels of environmental perception of the audience.Audiences are asked about the factors that affect their low interactions and environmental quality variables are extracted. In other words, in this approach, the quality criterion is based on the perception of the general audience (e.g. users of an urban environment) of how they understand and expect social interaction. In this case, the goal is not a specific group but an understanding of the community as a whole (Van Poll, 1997, 14).

In the expert-centered perspective, the opinions of the experts are the basis of all relevant reviews and decisions, and this perspective has been adopted in various aspects. There are usually three main reasons why this method is ineffective;

1. None of these studies has led to the identification of a comprehensive list of factors affecting the quality of the residential environment.

2. Disagreement between experts on the number, nature and grouping of the basic dimensions of environmental quality, so that even one expert at different times has expressed different opinions.

3. Experts and non-specialists generally disagree on the factors that determine the quality of the environment. This factor has been considered as the most important factor (Carp & Carp, 1982,243). The results show that the components of

environmental quality based on the expert-centered approach have little similarity with those of non-experts (environmental users) (Van Poll, 1997,14). On the other hand, the degree of difference between residents and experts' perceptions of environmental quality is considered important because it may influence the measurements and also the outcomes of the studies conducted on the nature of environmental quality (Eyles, 1988,13).

## Collaborative design, definition and goals

Participatory design is an organized process by which people, residents,visitors, or stakeholders work with planning and design experts to change open spaceinto valuable places. Participatory planning and design is also called public involvement, citizen engagement, citizen participation, collaborative decision-making or facilitated problem solving (The International Association for Public Participation). It can becreatively design-oriented, technically-oriented, or management and policy-oriented. This attitude is an opportunity to help authorities, experts, and users understand a place, apply differences and ultimately make effective and innovative changes in design (McKee & Nobre, 2009).

Thus, the practices of participatory design vary and are complex. Goals change over time (White, 1996) and may be contradictory among individuals (McKee & Nobre, 2009).

Today, the focus in participatory design forums is less explicitly on power strugglesbetween the "have" and "have-nots", and presumably more about differences of identityand rights of cultural groups (Meyer, 2011). As urban design engages an increasing number of actors and organizations, the civic model of urban design is not only shifting to a "participatory" model, but it is also looking at a collaborative model that has a partnership with designers and stakeholders. Collaboration and co-operation are so important that urban design has to take into account diverse values, competing interests, social and economic conflicts, cultural

differences, and institutional complexities. Innes and Booher (2004) believed that what is we call as public participation, with its legal requirements, is inadequate and incomplete in addressing the new complexities of the public arena.They pointed out that researches indicate that "collaborative partnerships" can address complex and contentious issues and provide a suitable and appropriate condition for future action.In many research fields, such as human-centered design,marketing and service design, the emphasis on userinvolvement has shifted from treating customers, users andcitizens only as passive research objects to taking them intothe design process as active co-creators, thinkers andpartners. This view has been given a different name and aslightly different emphasis in definitions. Two widely-adopted perspectives have been participatory design and theuser-centered approach. Participatory design has often beendefined as a shift in attitude from designing for users to oneof designing with users. However, it is quite difficult to drawthe line between user-centered design processes andparticipatory experiences. Participatory design is not simplya method or set of methodologies but more of a mind-set andattitude to people. The belief is that all people havesomething to offer to the design process and that they can beboth articulate and creative when given the appropriate toolswith which to express themselves. Moreover, participatorydesign is an approach in which potential end-users have acritical role in the outcome (Oksman, Väätänen & Ylikauppila, 2014, 2). The discourse of citizen participation and focusing on the human experience of place have significantly influenced the elitist tendency of urban design practice in modern countries. Rethinkingon the fundamental values of design in the direction of supporting concepts such as "human scale", "social interactions", "cultural practices", "democratic process" and "justice in the construction of urban environments" are the results of new reports (Banerjee & Sideris, 2015).

With people participation, residents are actively involved in the development process therefore there will be a better maintained physical environment, greater public spirit, more users satisfaction, significant financial saving, incensement of their trust and confidence in organizations. Thus they will accept decisions and plans and corporate within the projects executed or seeking solutions for problems.

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Therefore, in order to emphasize on the role of citizens in the urban design process, it is very important to come up with a model that can address

Table 1. Methods of Participation in Design and Planning. Source: Bagherzadeh Khosroshahi, 2015.

| Participatory Urban Design Methods | Properties |
|---|---|
| Awareness Methods | Informing people about the issue and ways to participate in the exhibition<br>Broadcast news and brief information on the media-assisted decision-making process<br>Continuous publication of the decision-making process with the help of newspapers<br>Awareness of environmental situations with walking tours |
| Indirect Methods | Gathering information, attitudes and opinions of users by preparing a questionnaire<br>Only shows the situation of people who polled, not all people who participated<br>Getting qualitative information and details |
| Group Interaction Methods | Face-to-face interaction in group workshops<br>Problem solving process<br>Finding solutions to problems<br>interactive sessions to solve a particular issue<br>Developing ideas and making suggestions and decisions<br>Exploring Alternatives with Experts and Citizens |
| Open-Ended Methods | Notification at public meetings<br>Project proposals and information provided by leaders throughout the process<br>Time limit for discussion because of the structure of the meetings<br>Active and dynamic personalities are interested in sharing and dominating the discussion<br>  Voting and public reaction to the meetings<br>Interview with city authorities<br>scheduling for people who cannot attend meetings<br>Partnering with TV shows |
| Brain Storming Methods | Creative teamwork in solving problems<br>making possible solutions<br>Encouraging the expression of basic solutions<br>Gathering ideas for solving problems by designating specific times for exhibitions,<br>writing ideas and discussing them, For people who can't speak in front of a group<br>Using online ways to gather ideas,<br>using a questionnaire without the participants' name<br>Developing ideas verbally or in writing |

the views and preferences of both groups (users and experts).Thus, design techniques and approaches should be used to help us achieve these goals.

## Participatory Urban Design Methods

Overall, there isa wide range of approaches for designers and planners, and some of them have become standard methods in the collaborative process. Various methods are used by designers and planners to obtain information. Many of these methods activate people'screative thinking by informing about environmental situations, and lead to creative collaboration and effective participation. Henry Sanoff divides the participation methods in planning and designing, into three main categories: Awareness Methods, Indirect Methods, Group InteractionMethods, Open-Ended Methods and Brain Storming Methods (Sanoff, 2000) (Table 1).

## Participatory Urban Design Process

In order to create desirable urban spaces and improve the quality of existing places,urban design always needs to evaluate the quality of public spaces.If we consider the urban design process as its most succinct state, according to Alexander, it consists of two steps: 1.Status evaluation 2.Solutionmaking. Thus the importance of the "evaluation" step is well demonstrated.

It can be observed that architectural and urban design activity cannot be the exclusive concern of a particular group of society. In the recent literature of urban design, it has been suggested that basically experts who are professionally employed in the field of place making (including architects, urban planners, building engineers, facility managers, interior designers and landscape architects) are a small number of communities. Delegating urban and environmental design to a small group of professionals fundamentally means disabling others and denying "the right to self-expression" by other humans.

Using people's participation in design requires different methods of communicating with

them,and that is the way to obtain the information through the collaboration tools and to improvethe relationship between the expert and the user (Islami & Kamelnia, 2013, 122).

As part of the institutional participatory process, public review and comment on specific projects and proposed policies, provides citizens with an opportunity to present their information and input. Public meetings are often a necessity of any project to obtain the necessary approvals from local communities, neighborhood councils and urbanauthorities.In evaluating different aspects of a project or policy, it is common to have special committees, supervisorycommittees, workgroups, and controlcommittee. When appropriate opportunities aregiven, these collaborative processes can make significant changes to the scale and character of a project. (Banerjee & Sideris, 2015, 530). Given the features mentioned by urban theorists for collaborative project design tools, understanding the design process is essential. Figure 2 presents the views of three theorists on the general processes of collaborative design.The three main steps in the collaborative design process are suggested: 1. Public information; 2. Design workshop; and 3. Feedback.

• **Public information**

The Public Information step is arranged to inform residents of the project inefficient and enjoyable ways. This approach can give designers a clearview of people'sinternal thoughts and feelings.

• **Design workshop**

Local community participation can be organized in a number of different ways. It should be noted that there is never a standard template that is compatible with all conditions. Therefore, collaborative workshops should be used in order to improve the design of proposed developments (English Partnerships, Housing Corporation, 2017, 145). After the public information phase, the expert team will organize a design workshop for interested citizens and experts. The purpose of the workshop, which includes the main users expected to

| Barton, H. et al. (2003) | Wates, N. (2000) | Urban Action Network (2004) | |
|---|---|---|---|
| Taking the Initiative | Research | Finding the Site | |
| Defining a Shared Vision | Public Meeting | Public Information | Public Information |
| Understanding the Locality | Idea Competiton | Design Workshop | Design Workshop |
| Developing Ideas | Development Partnership | Voting to Design Ideas | |
| Agreeing a co-ordinated Program | Art Workshop | Feedback | Feedback |
| Taking Action : Masterplan | Open house Street Stall | Public Information | |
| Taking Action : Development | Implementation | Implementation and Opening | |
| Learning Lessons | Management body established | Monitoring | |

Fig. 2. Basic Steps in the Collaborative Design Process. Source: Authors.

participate in the design process, is to identify their ideas and values and ultimately connect them to the actual design. In order to achieve these goals, the expert team makes a main participatorytool, called paper kit for design. It consists of a base map and somekinds of item sheets, such as trees, benches, and paving patterns. The basemap includes rich and realistic information of surroundings, and like a blankcanvas, participants were encouraged to add their ideas freely onto it. Itemsheets were given to provide types and ranges of possible choices (Ahn & Park, 2007, 5). In order to support the participation of variousstakeholders, including planners, architects, policymakers and concerned parties duringparticipatoryworkshops, we propose the use of a set of interactive decision support tools that facilitates achievinga consensus on the planning decisions (Kunzeet. al., 2011).

• **Feedback**

Urbanplanning is not without a target audience and studying the reaction of the audience can be a constructive "feedback" in the process of creating the urban process.In other words, the formation of the environment is not a one-way process, and the environment that the urban planner has designed requires evaluation of the operating places, the study of the types of audience reactions and how they affect the environment so that they can hope to improve there (Rahmani, 2015).

In collaborative design, design development must be achieved withfeedback in mind, because the ideas of the participants cannot be reflected at once in the actualand final design.Through the feedback step, the communication amongexperts and participants is veryimportant. Traditionally, experts used tovisualize their design ideas with drawings, such as plans, elevations, sectionsand perspectives. However, it is difficult for non-expert participants tounderstand such traditional drawings made of professional signs and terms (Carmona, Heath, Oc & Tiesdell, 2003).

Referring to the differences in perceiving design symbols among experts and

residents, we tried to modify a plan and a perspective drawing. Humanfigures were also inserted to demonstrate diverse activities on the plan,which played a role of providing sense of scale. Specific attributes of design,such as color, texture, and materials were presented carefully and otherdesign elements were also described as accompanied texts. As a result, theparticipants could understand the design output clearly and discussed it withthe expert team more vigorously and precisely (Ahn & Park, 2007, 7).

The development process should allow the local community to see how they come up with ideas at various stages,while presenting the feedback tothem. This will ensure that all individuals are aware of the role of counseling assistants and their partnerships in maintaining relationships, encouraging future partnerships, and thereby

achieving positive outcomes. The steps in the process must be clear and formal and be based on legal requirements. The process-forming steps should be a sequential program. Finally, it should be noted that the issue of local community participation is not so trivial that it can be easily imagined in advance (English Partnerships, Housing Corporation, 2017,145).

## Conclusion of theories

Today, many public projects make it possible for citizens and other stakeholders to participate directly in the design process. In such cases, in the first phase of a project, citizens and other stakeholders are invited to state their priorities. Then, they vote on the suggested design alternatives. There are various techniques for drawing citizens' opinions and engaging them in the design process, the most important of themhas been discussed in this paper.

Based on the theoretical foundations and considering the participation of people and experts in the urban design process, the present study proposes the following model to consider the role of people in urban design (Fig.3).

## Research Methodology

This paper has a qualitative approach and the research matter is theoretical and practical. To address the concerns of the research, the "analytical-comparative" method is used to analyze the theories of people and experts and applying them to the principles and process of urban planning. This research is based on the use of various practical techniques of participatory urbanism.

In order to gather information, documentary and library methods, directmethods, indirect methods, group interaction and brain storming methods, have been used. In addition, in order to clarify the subjectof study, a case study has been chosen and analyzed.

In this paper, according to the features of Heravi
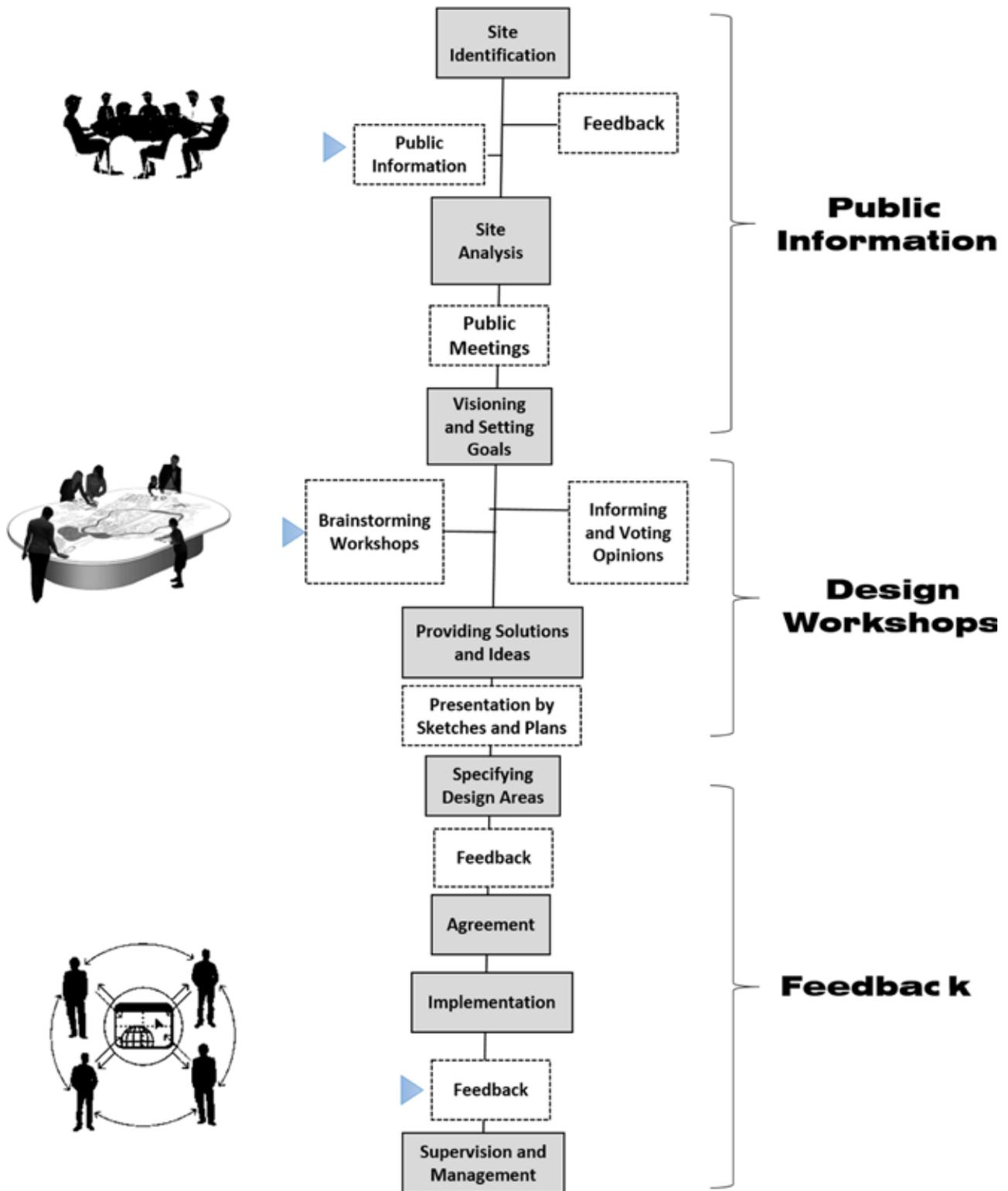
Fig.3. Model of urban design process with the participation of people and experts. Source: Authors.

$$n = \frac{\frac{z^2 pq}{d^2}}{1 + \frac{1}{N}\left(\frac{z^2 pq}{d^2} - 1\right)}$$

N= 300

n= 168

Square and the Cochran statistical formula, the original population of 300 was determined, and 168 respondents, who were randomly assigned from employees, users and attendees, have been chosen as sample population. Initially, these people were interviewed and, in the next stages, considering the level of participation and the level of interest of the citizens, 50 people whowere active citizens in design and consultation sessions left as the final sample.

## Case Study introduction

Heravi Square is located in the district 4 of Tehran. It is formed from the intersection of Mousavi, Panahi and VafaManesh streets and is one of the old and familiar Tehran Squares that has retained its name from past. The context has undergone major changes over time. The major problems of this placeare the heavy traffic, the incompatibility of new activity scales with the site context and the gradual disappearance of its distinct identity. The position of the square in the surrounding context is illustrated in the following pictures (Figs. 4 &5).

## Site analysis

The evaluation is based on two methods, According to the model presented with the predominant role of the people, in the first step, a general cognition of the area is performed by the expert (Fig.6) and then the problems, strengths and weaknesses of the area are identified and explained. This is done through questioning and interviewing.

## Public information

Considering the fact that people deserve awareness, this is one of the most important steps in the collaborative design process; hence, public meetings were held in Hervey Garden and also
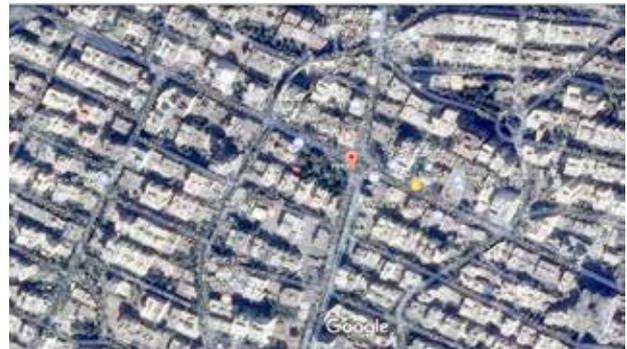


Figs. 4 & 5.The location of the Heravi square and the surrounding context. Source: google.com/maps

informing and receiving ideastook place at this stage (Fig.7).

## Design workshop

After the public information phase, the expert team will organize a design workshop for interested citizens and experts. The purpose of the workshop, which includes the main users expected to participate in the design process, is to identify their ideas and values and ultimately to link them to the actual design (Fig.8).

## Feedback

After receiving the ideas and opinions of the public and experts, at this phase,alternatives were shared among the people and their positive and negative feedback was evaluated (Fig.9).

## Discussion and findings

The results of this process included reports, plans and design ideas that reflected the diverse views
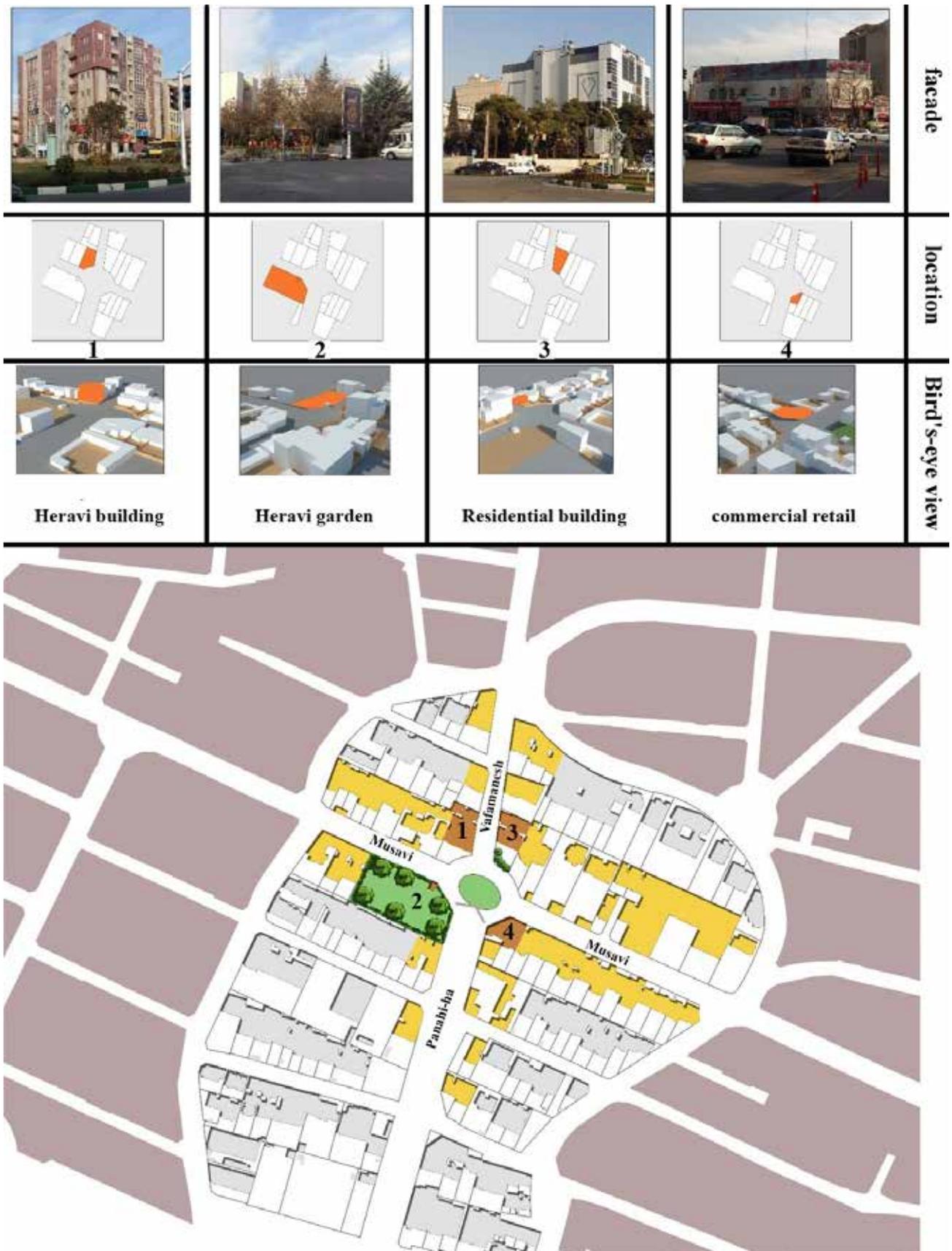
Fig.6. Initialsite analysis. Source: Authors.

of the various users in the area. This information indicates that residents and users of the environment primarily refer to traffic, accessibility, and safety issues, business owners complain about the gradual disappearance of retailers and the failure of the large scale business complex to comply with the context, and the experts alsoemphasize that aesthetic issues (morphology and landscape) are also important. Another important factor that most activists endorsed was the gradual disappearance of the original identity of the square and diminishing the role of social groups in that place. Therefore, according to all the problems and the ideas in the final step, the expert is responsible for categorizing and arranging the ideas in the form of urban design qualities and strategies as presented below (Table 2-5).

## Conclusion

It can be stated that the strongest and most distinctive manifestation of citizen participation in urban design doesn't occur in legally required public meetings, but in the streets, polling stations, sites and local green spaces. As a result, contemporary urban design is no longer a monopoly of architects, landscape architects and planners, but rather a public discourse and bargaining that involves a large number of individuals, stakeholders, and public institutions. Citizens are no longer passive recipients of information, but also they play an active role in urban design through individual and collective actions.

The present study is an attempt to link people's views and wishes (as urban space audiences) and the views and goals of urban designers (as urban space experts). Citizen partnership involves a variety of methods and techniques; the important thing is to clearly categorize and explain the collaborative urban design process in order to facilitate accelerating the analyzing and design process.

In thisresearch paper, first, the definitions and basic features of collaborative design were discussed,


Fig. 7. Public Meetings at Heravi Garden.
Source: Authors.


Fig. 8.Design workshops with the participation of people and experts.
Source: Authors.


Fig. 9.Interviewing and evaluatingpeople's feedback.
Source: Authors.

and then, in regard tocontemporarytheories, a process of the most important steps of collaborative design waspresented. This process consists of three basic steps that designers must committo duringthe collaborative design process. The details of these steps can be varied, while preserving the basic principles throughout the process. These three steps

Table 2. Designing Solutions in Function Dimension. Source: Authors.

| | Issue | Location | Goal | Quality | Solution | Diagram |
|---|---|---|---|---|---|---|
| **Function** | Functional scale incompatibility |  | Definition and stabilization of the role and function of Heravi square | Compatibility | Providing intermediate activities to link between large-scale land uses and local land uses |  |
| | Traffic, Overlapping of car and pedestrian |  | | pedestrian-orientation | Restricting car traffic on the streets of Vafamesh and Mousavi improving pedestrian movement by distinct flooring and dynamic activities Placing parking in the second layer towards the street |  |
| | Lack of cultural and recreational land uses |  | | Mixed land use | Embedding cultural and recreational uses in multipurpose buildings and complexes |  |
| | lack of activities which encourage people to participate and attend |  | | vitality | Enhancing dynamic functions such as coffee shops improving urban furniture to encourage people to sit and interact |  |
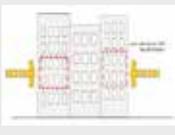
Table 3. Designing Solutions in Community and Perception Dimension. Source: Authors.

| | Issue | Location | Goal | Quality | Solution | Diagram |
|---|---|---|---|---|---|---|
| **Community and perception** | Lack of identifying elements and rapid changes in range |  | promoting unique and distinctive identity of Heravi square | Distinction Richness Sensory richness | Creating Identifying elements such as architectural and memorial elements in the area Functional differentiation of the square Paying attention to the visual senses through façade and morphology qualities And the sense of smell and hearing through activities around the field |  |
| | Not using the educational potential of the square due to the large population of users |  | | Teaching and Awareness | Improving communication with citizens through information banners and signs |  |
| | Lack of social interaction |  | | Social interaction and vitality | Creating places for different activities and behaviors Holding Seasonal and Religious Events Creating social centers |  |
| | Not using people's opinions in designing and expanding the area |  | | people's participation | Using the views of people living and working in this area | |
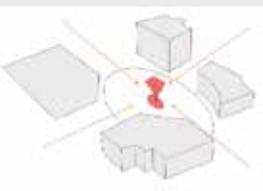
Table 4. Designing Solutions in Morphology Dimension. Source: Authors.

| | Issue | Location | Goal | Quality | Solution | Diagram |
|---|---|---|---|---|---|---|
| **Morphology and Space** | Not using traditional and local architecture of old buildings in new facade<br><br>unsuitable materials | | Improving visual quality and maintaining connectivity at the area | Contextualism and Sustainability Quality and Resistance | Using local architecture, especially historical buildings of the area<br><br>Using high quality urban materials, equipment and furniture | |
| | non-existence of distinction at boundaries | | | Spatial determination | Defining the place by designing the center and paying attention to the edges | |
| | Visual disturbance in urban facade | | | Visual proportions and qualities | Using Visual Properties in Ein al-Dowleh Building as a Pattern in Designing New Facades | |
| | Not regulating the composition of public open spaces | | | appropriate combination of mass and space | Framing the empty spaces around the square and adjusting the effect of mass and space | |
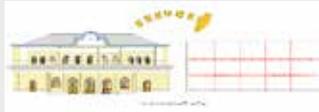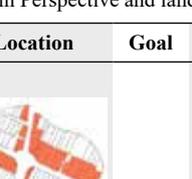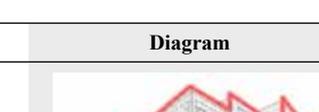
Table 5. Designing Solutions in Perspective and landscape Dimension. Source: Authors.

| | Issue | Location | Goal | Quality | Solution | Diagram |
|---|---|---|---|---|---|---|
| **Perspective and landscape** | Irregular sky line of buildings | | Organizing Urban Landscape of Heravi Square | **Desirable skyline Quality and Resistance** | Developing management standards for permissible elevation and monitoring its implementation | |
| | Visual disturbance of the square | | | **Order** | Organizing signs of existing shops and banners | |
| | Ignoring human scale | | | **Human scale** | Paying attention to the human scale by designing the details of the ground floor of buildings | |
| | Imbalance of mass at the square facade | | | **Balance and symmetry** | Framing the empty sections and balancing the edges | |
| | Open space at the edge of the square | | | **Enclosure** | Enhancing the enclosure by building the edges | |

include public information, design workshops and public feedback.

While studying Heravi square and the changes has made in the surrounding area for decades, the problems in this context were first assessed by people and experts, and this survey identified its priority and main problems. Subsequently, according to the intended goals, the environmentalqualities and solutions to these problems were presented. Considering the process steps, the role of people and professionals and linking the different steps to each otheris significant.

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