

The Need for Creative Placemaking in New Development Areas: An Analysis of the Real Estate Developments of Qom, Iran

Saeideh Sobhaninia¹, Stephen T. Buckman^{2*}, Jason Schupbach³

¹College of Architecture, Arts, and Humanities, Clemson University, Clemson, SC, United States

²Master of Real Estate Development Program, Clemson University, Greenville, SC, United States

³Westphal College of Media Arts and Design, Drexel University, Philadelphia, PA, United States

*Corresponding author's email: stbuckm@clemson.edu

Article history: Received: 30 October 2022 Received in revised form: 5 January 2023

Accepted: 13 February 2023 Published online: 30 June 2023

Abstract

Sense of place gives meaning to the areas in which we live. Despite the importance of the sense of place in the quality of life and the success of new development areas, many new developments, especially those built as exurbs to large cities and geared towards housing for middle and lower-income people, are built without a conscious understanding and design to encourage a sense of place. While recognizing that economic and longstanding racial, religious, and other societal factors might influence the flow of capital and resources to new development areas, placemaking can provide communities with some of the tools they need to revitalize neighborhoods. This paper presents the findings of one of those places in Qom, Iran, where development was built without consulting those who would live there and, in turn, suffered the repercussions of that decision. Moreover, although some studies have acknowledged the importance of creative placemaking, limited studies have provided practical strategies to improve new development areas using this concept. Therefore, this study aims to evaluate the current sense of place and propose practical strategies to enhance place quality in new development areas using creative placemaking. Through a mixed-method study, including a survey and follow-up interviews with the community's residents, the researchers have found that a general banality exists in the Qom, which degrades the residents' sense of place. The research results show the importance of social participation, emphasizing co-produced and citizen-led creative placemaking at the beginning of the development process. As only half of the community has been developed, the findings of this research can help lead the future of real estate development and, in turn, help real estate developers design and build communities that will create a sense of belonging for residents, maintain their value and be a destination for future residents.

Keywords: Creative placemaking, sense of place, new urban developments, real estate, Iran

© 2023 Penerbit UTM Press. All rights reserved

01.0 INTRODUCTION

As populations seek more significant economic and cultural growth opportunities in urban environments, the world has seen broad migration from rural to urban (Simard & Jentsch, 2009). Urbanization should manifest the socio-cultural development of human societies (Smaldone et al., 2005). However, as many urban areas rapidly expand, hasty urban neighborhood constructions are built to support the flow of the urban population. As a result, the need for shelter has outweighed the need for a sense of place in many rapidly growing urban environments, which has led to low quality of life and a lack of sense of place in some of these neighborhoods (Buckman & Sobhaninia, 2022).

Well-established research emphasizes the physical and social structure of a place's ability to affect community identity, well-being, and economic growth (e.g. Bernardo & Palma-Oliveira, 2016; Karssenberget al., 2016; Vaughan et al., 2021). Unique places that prioritize tradition, history, and special geographical features over globalization positively impact residents. Lack of sense of place, however, can lead to a decrease in residents' interaction with their environment and degradation of their sense of belonging, which can give rise to residents' indifference to each other and their environment and, consequently, less social participation and viability in these areas, and more importantly, more social problems (Devine-Wright, 2009).

Despite previous research acknowledging the importance of creative placemaking (e.g. Karssenberget al., 2016; Vaughan et al., 2021), limited studies offer practical development strategies to enhance the quality of life of people via creative placemaking in new development areas. Even though some scholars (e.g. Green, 2021; Markusen & Nicodemus, 2014; Salzman & Yerace, 2018; Vaughan et al., 2021) have worked on the impacts of creative placemaking in urban areas, a limited number of them offer a quantified method to analyze the effects of new developments after their implementation. Therefore, despite many studies, new developments around big cities still face severe placemaking issues.

This paper refers to these rapidly growing environments around big cities as ‘new development areas’, which typically manifest as multifamily housing units or apartment complexes on extensive undeveloped lands. While examples of new development areas can be found worldwide, this paper focused on the specific developments in Qom, Iran, which typifies this kind of environment. It studied the Pardisan district of Qom, which was developed 24 years ago by both the government and private developers for lower-income people.

Thus, the mixed-method study presented here aimed to understand how to evaluate and improve creative placemaking in new development areas by proposing strategic guidance. It looked at the individual, environmental, and socio-cultural variables that impact residents’ sense of place and identified the main principles for improving new development areas, with a specific focus on creative placemaking strategies. While many strategies go into improving communities, creative placemaking is a relatively newly defined set of urban policies that can assist urban designers and developers by engaging creative artists, designers, and culture bearers in the city-making process, in turn proving to be a vital resource for successfully integrated developments.

We believe this research contributes to the literature by providing practical creative placemaking strategies to help urban developments improve their sense of place, increase place identity and sense of belonging, and enhance residents’ perception of their environment and real estate valuation. It also guides real estate developers and helps policymakers better plan for the future development of vacant lands.

The following section introduces some main concepts related to creative placemaking in new development areas. Next, we present the conceptual framework used for evaluating a sense of place and discuss the assessment results using the conceptual framework. Lastly, we introduce practical strategies for creative placemaking.

02.0 LITERATURE REVIEW

2.1 Place and Sense of Place

Relf (1976, p. 3) defined places as “complex integrations of nature and culture that have developed and are developing in particular locations, and which are linked by flows of people and goods to other places”. The main difference between a place and a space is the attributed meaning by people (Relf, 1997). The place embodies meaning and can be created and recreated through people’s activities and ascribed qualities (Giesecking et al., 2014). In addition, a significant relationship exists between positive perception of a place (e.g. being more civilized, less polluted, a good place to live), place identity, and its residents (Amirzadeh et al., 2023; Bernardo & Palma-Oliveira, 2016). Moreover, some researchers consider three interrelated elements that give meaning to places—physical context, the individual’s internal psychological and social processes, and activities (Cartel et al., 2022; Smaldone et al., 2005).

Thus a sense of place can be defined as people’s subjective perception of the environment and a combination of self-conscious and unconscious feelings, impressions, beliefs, memories, and experiences within a place, which affect how people experience and perceive it (Shamai, 1991; Silberbauer, 1994). The dynamic interactions between individuals and a place and between individuals forge a sense of place (Norberg-Schulz, 1975) that will change and develop over time (Tuan, 1979). These interactions provide special meanings for different people (Amirzadeh & Barakpour, 2021). The accumulation of these diverse meanings (positive and negative) builds a collective sense of place, which can lead to a vital unity among people (Lynch, 1960). Based on Punter’s (1991) model, three components of physical settings (townscape, built form, permeability, microclimate, landscape furniture), activity (land uses, pedestrian flow, behavior patterns, vehicle flow), and meaning (legibility, cultural association, perceived function) create a sense of place. The process of working to create a sense of place is called ‘placemaking’.

2.2 Creative Placemaking in New Development Areas

Placemaking seeks to maximize shared values by considering a place’s physical, cultural, and social identities and supporting its ongoing evolution (Vaughan et al., 2021). Courage (2020, p. 2) defined placemaking as “an approach and a set of tools that puts the community front and center of deciding how their place looks and functions. There is a community imperative in placemaking”. Karszenberg et al. (2016, p. 26) defined placemaking as “turning physical public spaces into places that support human interaction, economic exchange, and well-being. It is a continuously dynamic process, not a static set of amenities, objects, or activities. It comes from the people and involves everything we experience”. Thus, while recognizing that economic and longstanding racial, religious, and other societal factors might influence the flow of capital and resources to new development areas, placemaking can provide communities with some of the tools they need to revitalize neighborhoods.

Compared to placemaking, creative placemaking puts more emphasis on three characteristics—public-private partnerships, place-based actions, and the importance of art and cultural activities. While creative people have always had a role in shaping urban life and spaces, creative placemaking is a recent policy term conceived in response to the challenges experienced by homeowners who lost a significant percentage of their net worth during the U.S. Great Recession in 2007 (Courage, 2020). It capitalizes on the unique creative assets of each neighborhood to drive economic development (Vaughan et al., 2021). Markusen and Nicodemus (2014, p. 35) defined creative placemaking as the process where “partners from the public, private, non-profit, and community sectors strategically shape the physical and social character of a neighborhood, town, city, or region around arts and cultural activities. Creative placemaking animates public and private spaces, rejuvenates structures and streetscapes, improves local business viability and public safety, and brings diverse people together to celebrate, inspire, and be inspired”.

Creative placemaking is a set of tools that communities can use to transition the focus from simply physical components (e.g. buildings and infrastructure) to including social elements and human activities in their community development plans. Using creative techniques, community members actively produce the public domain rather than merely acting as consumers (Green, 2021; Salzman &

Yerace, 2018). Creative placemaking aims to activate a community's unique social and cultural features to ensure successful, positive change and build a sense of belonging in neighborhoods (Courage & McKeown, 2018). These arts and culture-based strategies can support equitable development, community well-being (Calderon & Takeshita, 2020; Glover et al., 2021), helping define and grow community identity (Buckman, 2016; Sobhaninia & Buckman, 2022), economic growth (Lima & Jones, 2020), and visible physical transformation (Hughes, 2020) through community participation and collective decision-making (Balug, 2019).

2.3 The Literature-Based Theoretical Framework of Creative Placemaking

According to the literature review, many researchers consider three broad, interrelated variables for creative placemaking that give meaning to the concept, and it cannot be understood without considering all aspects: the individual's interests and experiences in a place, the sociocultural attributes, and the built environment's physical and functional attributes (e.g. Markusen & Nicodemus, 2014; Sobhaninia et al., 2023; Tartari et al., 2022; Zebracki, 2020; Žlender & Gemin, 2020; Zuma & Rooijackers, 2020). These three variables are explained in more detail in sections 2.4-2.6.

2.3.1 Individual Interests and Experiences

The creative placemaking concept is defined at the individual level by the emotions, impressions, beliefs, memories, and experiences of each individual that helps them build a sense of belonging to the place. The individual attributes of creative placemaking are made by people's personalities, life experiences, values, culture, and interactions with a place, represented by the community's artistic representation and its artists (see below). Creative placemaking is entangled with people's memories, familiarization, and the special meanings of a place for people (Lee et al., 2013). Paying attention to the meanings people attribute to a place is a determinant factor in creative placemaking's success as a tool (Ujang, 2012).

2.3.2 Socio-Cultural Attributes

Successful developments have a place-based, people-oriented strategy (Buckman & Hamdan, 2016) that allows residents to demonstrate their relationship with their physical and social environment (Webb, 2014). Culture in a community can be defined in many ways and by many people. It might be determined by everything from the residents' food or religious/ceremonial practices, to the physical beauty or community's artistic expression, to cultural events and celebrations that occur in the place (Zuma & Rooijackers, 2020). The artists or community members who 'hold' the historical culture of a place are often called 'culture bearers'. Culture bearers have intergenerational ways of life and are responsible for evolving cultural art practices that educate people and preserve ancestral knowledge (refer to Indigenous Roots Cultural Arts Center). Working to find these residents is always a good first step in creative placemaking practice. In addition, observing residents' interactions and lived experiences within a place is critical (Ellard, 2015). Including people from all walks of life, place involvement, and a sense of appreciation are other significant components of successful placemaking (Žlender & Gemin, 2020).

Creative placemaking also emphasizes the strategic integration of art into neighborhood development projects (Schupbach, 2015). Bennett (2014) outlined four primary strategies for creative placemaking 1) anchoring – art institutions as the community's central institution, 2) activating – when communities bring art activities (performances, festivals, etc.) into public areas, 3) fixing – beautifying infrastructure and vacant areas through design and art, and 4) planning – engaging community stakeholders in community planning processes through arts-based techniques. These strategies include offering music, sport, and other opportunities (van der Hoeven & Hitters, 2020) and constructing recreation and leisure areas (Pearson et al., 2014). The impacts of these techniques include economic development within new areas (Buckman & Sobhaninia, 2022), addressing social challenges as varied as access to transportation, workforce development, environmental justice, and public safety (Calderon & Takeshita, 2020), increasing people's positive perception of their environment (Marshall, 2020), and building a sense of belonging for residents in communities (Bedoya, 2013).

2.3.3 Physical and Functional Attributes of the Built Environment

Physical aspects of the environment include an area's natural or geographical context (Pickett et al., 2013) and the built environment created through design and planning (Gieseking et al., 2014). These characteristics attribute meaning to urban areas leading to an improved sense of place (Lynch, 1960; Masterson et al., 2019). Physical contexts guide urban shape, function, and character. Norberg-Schulz (1996) asserted that a sense of place is more substantial in areas with a distinct perceivable, visible, and memorable identity within the structure and the built environment.

Furthermore, a unique feature of each place is its geography. Thus, the uniqueness of urban areas and regional diversity depends partly on each place's natural landmarks (Relph, 2007). The natural environment, including green areas (parks, open spaces), water features (rivers, lakes), wildlife, and biodiversity, are essential parts of most developments (Amirzadeh et al., 2022). They also denote opportunities for advancing a sense of place and economic growth (Beatley, 2011; Ellard, 2015; Lima & Jones, 2020; Pickett et al., 2013). Moreover, highlighting the uniqueness of a place through diverse community activities is an essential component of creative placemaking (Jacobs, 1993; Markusen & Nicodemus, 2014). Social and physical diversity offers ecological, aesthetic, and psychological benefits within places (Quinn et al., 2019).

Similarly, built environment features consist of myriad options that make an urban area user-friendly. For instance, well-established good urban design indicators such as pedestrian-oriented accessibility and mobility (Talen, 2011), ease of movement, distinctiveness, comfort, safety (Ujang, 2012), regional accessibility, the density of amenities, street connectivity, proximity to green areas, and building designs (Stähle, 2016) all contribute to making a city function well for its residents. Other components that contribute to a sense of place

are accessibility of leisure opportunities, place size, enclosure, human scale, visual proportions, material, color, sound, visual diversity (Steele, 1981), smell, landmarks, and monuments (Tartari et al., 2022; Zebracki, 2020), the number of people in the public spaces within new development areas (Abusaada & Elshater, 2021) and the level of walkability (Beatley, 2011; Carmona, 2021; Speck, 2013). Creatives can positively impact all these indicators of the built environment through well-designed creative placemaking strategies that improve the physical and functional attributes of the built environment to impact people’s experiences within the built environment.

2.4 Defining the Variables/Attributes of Creative Placemaking through Indicators

These three creative placemaking variables/attributes – individual, sociocultural, and environmental – impact the embedded meanings within a place, the attributed meanings to a place by people, and the people’s quality of life. They are inseparably linked and essential in the creative placemaking concept. Planners of new development areas must consider all three variables defined above when adopting creative placemaking strategies. In order to devise creative placemaking strategies that planners of new development areas might use to improve the sense of place within the place, this section attempts to define the indicators of these three variables from the literature and to show how they interact to create meaning for a place.

Table 1 presents the indicators of each variable of creative placemaking based on the literature review. These three variables and their relative indicators are the basis for the study.

Table 1 Creative placemaking variables and indicators

			Variables	Indicators	References	
Creative placemaking in new development areas	Individual variable			Individual characteristics (e.g. age, and gender)	Bernardo and Palma-Oliveira (2016)	
				Level of individual values and interests	Cartel et al. (2022); Žlender and Gemin (2020); Zuma and Rooijackers (2020)	
				Level of individual experiences	Bernardo and Palma-Oliveira (2016); Silberbauer (1994); Tartari et al. (2022); Zebracki (2020)	
		Social variable			Sense of community	Courage (2020)
					Common goals and values	Vaughan et al. (2021)
					Culture of the place and its consideration in the development	Calderon and Takeshita (2020); Glover et al. (2021); Markusen and Nicodemus (2014); Zuma and Rooijackers (2020)
					Collective memories	Lynch (1960)
					Level of collective activities	Green (2021); Salzman and Yerace (2018)
					Existence of social relationships among residents	Karssenberget al. (2016)
			Diversity of social activities	Gieseking et al. (2014); Quinn et al. (2019); Žlender and Gemin (2020)		
			Level of social participation	Balug (2019); Bennett (2014)		
	Environmental variable	Built environment	Function	Public spaces quality	Buckman and Hamdan (2016)	
				Level of safety and security	Calderon and Takeshita (2020)	
				Open spaces and parks	Pearson et al. (2014)	
				Variation of linkage	Ujang (2012)	
				Public transportation	Calderon and Takeshita (2020)	
				Level of mixed-use	van der Hoeven and Hitters (2020)	
			Form	High permeability	Punter (1991)	
				Adequate zoning	Stähle (2016)	
				Existence of art and monuments	Calderon and Takeshita (2020); Glover et al. (2021); Schupbach (2015)	
				Enclosure	Markusen and Nicodemus (2014)	
				Human scale	Markusen and Nicodemus (2014)	
				Visual uniqueness	Courage (2020); Markusen and Nicodemus (2014); Masterson et al. (2019)	
		Natural environment			Level of the legibility of the neighborhoods	Ujang (2012)
					Level of the accessibility	Stähle (2016); Talen (2011)
					Compatibility with topography	Relph (2007)
				Level of emphasis on existing natural resources (green areas, lakes, rivers, etc.)	Relph (1976)	
		Green spaces and parks	Amirzadeh et al. (2022)			

Figure 1 gives a basic outline of how the creative placemaking variables interact to attribute meaning to place.

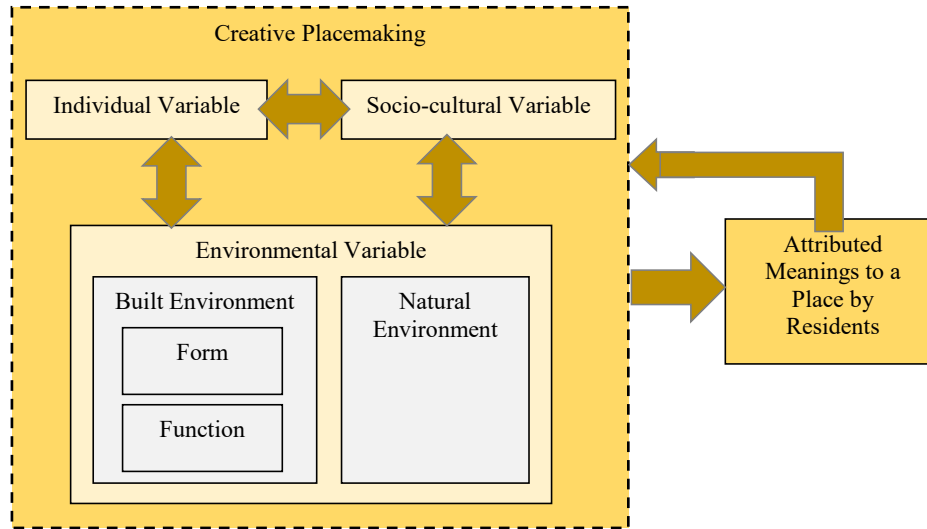


Figure 2 The components of creative placemaking

3.0 METHODOLOGY

3.1 Approach to the Study

This study seeks to evaluate the current sense of place among Pardisan district's residents by measuring indicators of the individual, environmental, and sociocultural variables that impact residents' sense of place. It also aims to propose practical strategies to improve place quality in new development areas through creative placemaking. Since community involvement is integral to creative placemaking (Courage et al., 2021), this research focuses on people's perceptions and expectations using an exploratory case study design with a mixed-method analysis for the Pardisan district of Qom, Iran. To address this objective and better understand how creative placemaking in new development areas works, this research seeks to answer the questions: what is the current sense of place in the Pardisan district, and what strategies should be taken to increase the sense of place through creative placemaking in Pardisan?

The study's first step was understanding the residents' sense of place through a survey. In this step, the data was collected by distributing questionnaires, and it was analyzed quantitatively via the principal component of JMP statistical software. The second step of the study was proposing practical strategies to improve the sense of place through creative placemaking. Therefore, the study continued with the following interviews to better understand people's perceptions and desires. The analysis method in this step was qualitative inductive coding, which will be discussed more in the following paragraphs.

3.2 Case Study Community: Pardisan

The case study for this research is the Pardisan District, a vast new development located near the city of Qom in Iran. With 1.3 million people, Qom is the seventh largest city in Iran (Macrotrends, 2022). Due to its position as a tourist destination, industrial economy, and location on the Trans-Iranian Railway, it has faced significant population growth since the 1950s (refer to Britannica). As a result, the city expanded southwest (Mosammam et al., 2017), and construction began in Pardisan City in 1997 to absorb the overflow population and provide more affordable housing. However, its rapid growth led Qom to incorporate Pardisan as a new district in 2011.

Despite having many residents, Pardisan's sole function is to provide housing for the region without much consideration for placemaking. Residents have limited opportunities to socialize collectively, with most activities occurring inside individual homes. As a result, these neighborhoods have little communal life and a reduced sense of community. Despite the government's claim to finish developing the district at the beginning of the development, more than half of the land is still undeveloped. Since Pardisan's development process, which started approximately 24 years ago, is still ongoing and the place quality can still be improved for future developments in this area, it is a good case study for this research.

The Pardisan City neighborhood is in the southwest region of Qom in Iran. Its total area is 1,900 hectares, and its population is 121,000. Residents of this city are mainly from Qom, with others from nearby cities, including Tehrān, Arāk, Kāshān, Sāveh, and Yazd (see Britannica). Figures 2 and 3 show the location of the Pardisan district.

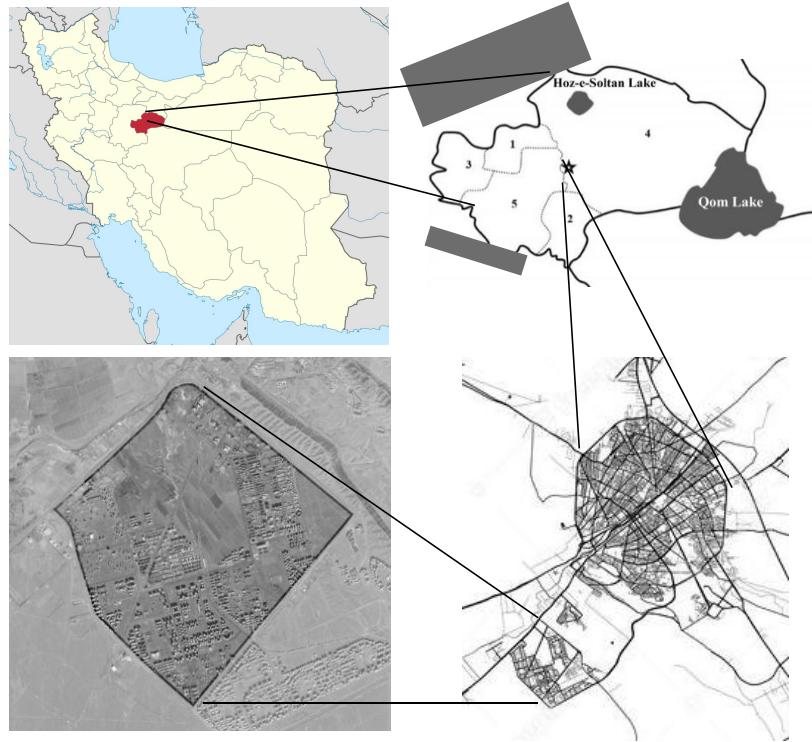


Figure 2 Qom and Pardisan locations



Figure 3 Pardisan district

In addition to its low cost of housing and numerous universities, Pardisan's proximity to Qom and other cities offers a wide range of employment opportunities (Ghaempanah & Rahnamaei, 2021). Unfortunately, Pardisan was developed primarily as housing for employees at Qom City with little attention to residents' needs and desires beyond simple shelter. This short-term planning has led to many issues, including low resident satisfaction, short-term residency, lack of vitality, decreased diversity of activities and people, and less social interaction (Ghaempanah & Rahnamaei, 2021) (see Figure 3).

Despite these issues, population predictions for Pardisan suggest significant growth. For instance, the area still has at least 560 hectares of vacant land available for development. This development could exacerbate the current trend or improve opportunities. Thus, there is an urgent need to analyze and implement better planning and development strategies. This paper provides a critical case study for leveraging creative placemaking as one such strategy.

3.3 Data Collection and Sample

This study has two steps: the survey and in-person interviews. The data collection method and the sample size in each step are discussed in the following paragraphs.

3.3.1 Survey

First, researchers obtained the sense of place variables and indicators through a comprehensive review of the previous literature on the creative placemaking concept, which resulted in the study framework (see Figure 1 and Table 1). Next, the questionnaire for the survey was developed using the indicators from the theoretical framework. The questionnaire had 20 questions in three sections. Section one measured the indicators of individual variable, such as the average residency time and personal memories and experiences in the area. Section two measured the indicators of social and environmental variables related to creative placemaking, and section three asked for demographic information. Then, the questionnaires were distributed in person among 383 randomly selected Pardisan residents. The sample number was achieved through Creative Research Systems (<https://www.surveysystem.com/index.htm>), using the population number of the Pardisan district and a 0.05 confidence interval. Table 2 shows a summary of the questions on the questionnaire.

Table 2 The summary of the questions on the questionnaire

Section	Question
S1-1	Please indicate the place you were born.
S1-2	Please indicate the length of your residency in Pardisan district.
S1-3	Please indicate the place you work.
S2-1	I often interact with my neighbors.
S2-2	There are community activities in the Pardisan district.
S2-3	There are diverse activities in the neighborhood for everyone.
S2-4	I engage in community activities or organizations.
S2-5	I have memories in the Pardisan public spaces.
S2-6	Community members help one another in times of trouble.
S2-7	I trust the community to keep the area safe.
S2-8	I am satisfied with the public space in my neighborhood.
S2-9	I am satisfied with the existing canal condition in the neighborhood.
S2-10	It is easy to get familiar with the Pardisan area.
S2-11	What do you like about living in your neighborhood? (Namely: sense of community, nearby activities, schools, the cost of living, job opportunities, proximity to work, proximity to friends and families, public transportation, linkage variations, open spaces, mixed-use, visual characteristics).
S2-12	What are the weaknesses of the Pardisan district? (Namely: few social activities, lack of legibility, lack of place identity, few open spaces, lack of diversity, the resemblance of the buildings, few local stores, and purchasing opportunities).
S2-13	How would you improve the public spaces? (Namely: more pedestrian-friendly, green and open spaces, better local government, better lighting, better public transportation, better mixed-use, more artworks, and more landmarks).
S3 (1-4)	Please describe your age, gender, employment status, and household income.

3.3.2 Follow-Up Interview

To obtain a comprehensive strategic guideline to improve the sense of place within new development areas through creative placemaking, the researchers continued the research with follow-up in-person interviews. Referral non-probability sampling was used for the sampling target population. The referral technique was snowball sampling, based on a chain referral process. First, a list of relevant stakeholders, such as city council members, authority officials, and community presidents in the Pardisan district, was provided. From each category, one or two people were randomly selected, contacted, and interviewed. Afterward, they were asked to provide the names and addresses of other stakeholders, especially residents, who might be willing to contribute to the study. The interviews continued until the saturation of information, which is the determinant factor in the sample size of the interviews using the qualitative snowball technique. As a result, 26 community stakeholders were interviewed for further information. The question overlapped with the questions on the questionnaire (items S2-11, S2-12, S2-13 in Table 2). However, the responses were more detailed so that the researchers better understand the stakeholders' desires in the area.

3.4 Measures

The questions were primarily multiple-choice or based on the Likert scale. A five-item Likert scale was used in this research, containing items classified from “*strongly agree*” to “*strongly disagree*” on a 1 to 5 rating scale, which is a much more straightforward and one of the most reliable scales to measure opinions (Ghafourian & Hesari, 2018; Oppenheim, 2001). Using this 5-point scale for all the questions (either multiple-choice or the Likert scale questions) provided a homogeneous scale for the data analysis.

3.5 Analysis

To analyze the data from the questionnaires, first, the Analytical Hierarchy Process (AHP) method was used to determine indicator relative weights (see the Relative Weight of Indicators section). Next, the principal component on JMP statistical analysis software was used to obtain indicators' average scores from the survey results. Then, the *relative score* of each indicator was achieved by multiplying the relative weight of the indicator by the indicator's average score from the survey results. Lastly, the degree of each sense-of-place variable (individual, socio-cultural, environmental) was computed based on adding the relative scores of all variable indicators.

The principal component analysis process created a score for each variable based on survey responses. Calculations for variable scores are as follows:

- Individual Variable Score:
 $(0.1343*P.B.)+(0.2804*CP)+(0.5852*IE)$
 where P.B. is place of birth, C.P. is the current place of living, and I.E., is individual experiences.
- Socio-Economic Variable Score:
 $(0.147*CA)+(0.137*SI)+(0.1983*SP)+(0.165*CG)+(0.084*DS)+(0.267*SC)$
 where CA is collective activities, SI is the social interaction among neighbors, SP is social participation, CG is common goals and values, DS is the diversity of social activities, and SC is sense of community.
- Environmental Variable Score:
 $(0.0764*PQ)+(0.0713*OS)+(0.0464*VI)+(0.0743*PT)+(0.0432*MU)+(0.2*SS)+(0.0764*E)+(0.0733*VU)+(0.0952*L)+(0.1503*N)$
 where PQ is public spaces quality, OS is open spaces and parks, VI is variation of linkage, PT is public transportation, MU is mixed use, SS is safety and security, E is enclosure, VU is visual uniqueness, L is legibility, and N is emphasis on natural elements.

The indicator score results were refined based on the relative weight and AHP results, which are explained in detail in the following section.

3.5.1 The Relative Weight of Indicators

Tables (3, 4, and 5) below present the relative weights for each indicator of the three study variables—individual, socio-cultural, and environmental—using the Analytical Hierarchy Process (AHP). This operation determined sense-of-place indicator relative weight using a scale of 0-1, with 0 being low and one being high, for each indicator in each category.

First, the Delphi method was used to evaluate each indicator's relative weight compared to the others. This comparison was conducted between every two pairs of indicators in each category. The Delphi method in this study involved understanding the opinions of two people. The criteria for choosing the experts for this step were selecting experts with creative placemaking expertise both academically and professionally. Having these criteria in mind, we created a list of potential candidates. Next, we narrowed the list and chose one academic expert in creative placemaking theory teaching in Pardisan district universities (since they had research experience in the case study area) and one practitioner expert with previous professional experience in the case study area. This method offered an effective way to gather and compare experts' opinions. They were engaged remotely and were asked to compare each pair of indicators in each category, and different experts provided comparative measurements. Next, the average relative score for each pair of indicators was obtained using the average scores from the experts' opinions. For instance, the average relative weight of a sense of community to social interaction in the category of the socio-cultural variable resulting from the experts' different opinions is 2. Then, the Geo Mean – the n th root product of n numbers (Ando et al., 2004) – for each indicator was determined. The Geo Mean was preferred over the arithmetic mean in this study since the values were ratios of two qualitative indicators. The statistical formula is preferred over arithmetic mean when working with percentages derived from qualitative values. Lastly, the relative weight of each indicator was calculated by dividing the Geo Mean of each indicator by the sum of Geo Means.

Tables 3, 4, and 5 show the calculation of the relative weight of each indicator in the three study variables. Furthermore, the content analysis of the interview results was conducted using qualitative inductive coding to identify the strategies for creative placemaking in Pardisan to increase the sense of place.

Table 3 The relative weight of individual indicators of creative placemaking

Indicator	Birthplace	Current Place	Length of Residency	Geo Mean	Relative Weight
Birthplace	1	0.33	0.33	0.4775	0.1343
Duration of living in the current place	3	1	0.33	0.9966	0.2804
Individual experiences	3	3	1	2.08	0.5852
Total				3.5542	1

Table 4 Relative weight of socio-cultural indicators of creative placemaking

Indicator	Collective activities	Social interaction among neighbors	Social participation	Common goals and values	Social activity diversity	Sense of community	Geo mean	Relative weight
Collective activities	1	3	1	0.5	1	0.33	0.8894	0.147
Social interaction among neighbors	0.33	1	0.33	3	2	0.5	0.8298	0.137
Social participation	1	0.5	1	2	3	1	1.2	0.1983
Common goals and values	2	0.33	0.5	1	3	1	0.9983	0.165
Diversity of social activities	1	0.5	0.33	0.33	1	0.33	0.5117	0.084
Sense of community	3	2	1	1	3	1	1.6188	0.267
Total							6.049	1

Table 5 Relative weight of environmental indicators of creative placemaking

Indicator	Public spaces quality	Open spaces and parks	Variation of linkages	Public transportation	Mixed-use	Safety and security	Enclosure	Visual Uniqueness	Legibility	Natural elements	Geo Mean	Relative weight
Public spaces quality	1	1	1	1	0.5	0.5	1	2	1	0.33	0.8351	0.0764
Open spaces and parks	1	1	1	2	0.5	0.5	1	1	0.33	0.5	0.7791	0.0713
Variation of linkages	1	1	1	0.33	0.5	0.33	0.5	0.5	0.33	0.25	0.507	0.0464
Public transportation	1	0.5	3	1	0.33	0.5	1	1	0.5	1	0.8114	0.0743
Mixed-use	2	2	2	3	1	0.5	2	1	2	1	0.4727	0.0432
Safety and security	2	2	3	2	2	1	2	3	3	3	2.194	0.2
Enclosure	1	1	2	1	0.5	0.5	1	1	1	0.33	0.8351	0.0764
Visual Uniqueness	0.5	1	2	1	1	0.33	1	1	1	0.33	0.8011	0.0733
Legibility	1	3	3	2	0.5	0.33	1	1	1	0.5	1.04	0.0952
Natural Elements Emphasis	3	2	4	1	1	0.33	3	3	2	1	1.642	0.1503
Total											10.9188	1

3.6 Participants

After developing the sense-of-place indicators, researchers developed the survey questionnaire with separate sections for indicators of individual, socio-cultural, and environmental variables. The questionnaire was distributed to 383 Pardisan residents; 296 responses were collected, with a response rate of 78%. Survey distribution was done in person to randomly selected households. The average age of the respondents was 32.5; 51% were female, 49% were male, 85% were married, and 15% were single. The household size for the majority of participants was between 3 and 4 members.

The in-person interviews were also conducted among 26 community stakeholders (16 residents, two community presidents, three local government officials, two local developers, and three investors). The demographic characteristics of interviewees concerning respondents' gender were also relatively homogeneous (14 males and 12 females).

04.0 RESULTS

4.1 Evaluating the Sense of Place in the Pardisan District

Results for the individual variable showed that the average score was 2.53 out of 5. The average residency time in the area was 3.5 years. 68% of respondents worked outside Pardisan, and 36.7% considered the low cost of living the main reason to live there. 69% of the respondents had no specific memories in public spaces within the area. Table 6 presents the scores for each indicator in the individual category as well as the total score for the individual variable. The total individual variable score results from multiplying each indicator score (results from the survey, using the principal component on JMP) by their relative weight and adding the scores.

Table 6 The scores of the individual variable of sense of place

Indicator	Score	Relative Weight	Total
Birthplace	1.8	0.1343	0.2417
Duration of living in the current place	2.1	0.2804	0.5888
Individual experiences	2.9	0.5852	1.697
Total Score			2.53

The socio-cultural variable average score was 2.11 out of 5, which is relatively low. 67% of the respondents believed that there is no community activity within the district, and 83.7% declared that the activities are not inclusive for everyone in the community. Only 20% of respondents were engaged in community activities, and 29.7% interacted with their neighbors. In residents’ opinion, the most problematic social features were lack of social activities (10%) and weak place identity (7.6%). Figure 4 shows some views of the social landscape in Pardisan.

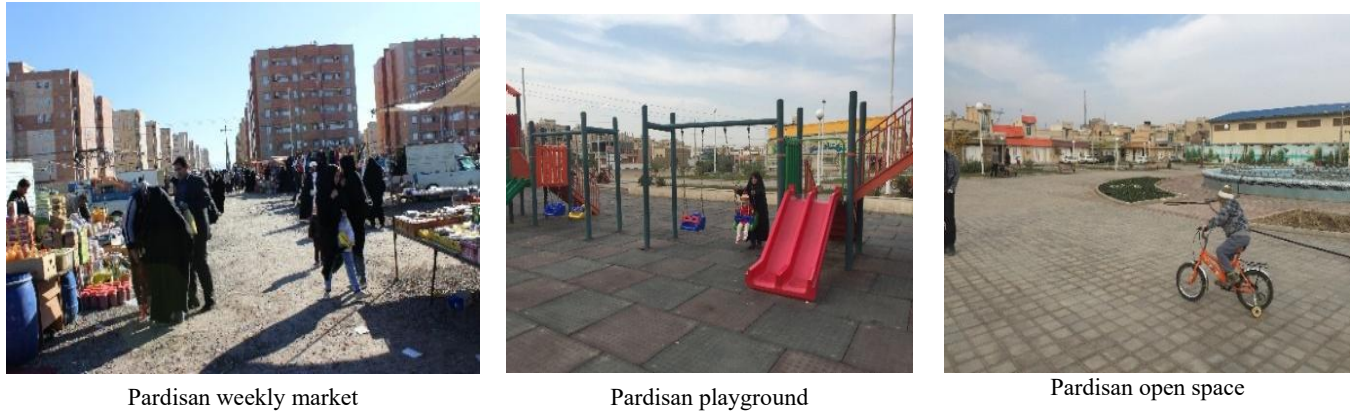


Figure 4 Pardisan social landscapes

Table 7 depicts the indicator scores for the socio-cultural category as well as the total score for the socio-cultural variable.

Table 7 The score of the socio-cultural variable of sense of place

Indicator	Score	Relative Weight	Total
Collective activities	3.1	0.147	0.4557
Social interaction among neighbors	2.5	0.137	0.3425
Social participation	2.1	0.1983	0.4164
Common goals and values	1	0.165	0.165
Diversity of social activities	1.5	0.084	0.126
Sense of community	2.3	0.267	0.6141
Total Score			2.11

The average score for the environmental variable is 1.74 out of 5, the lowest among the three variables. Even though 34% of the respondents liked the parks and open spaces within the area, 75% were not satisfied with their overall surrounding environment. In addition, 91% thought public transportation was problematic, and 51% were unhappy with the community’s mixed-use offerings. 17% of the respondents were very dissatisfied with environmental features, and 71% declared that it was easy to get lost in the area due to the similarities of the physical buildings. Figure 5 shows some views of the urban structure in Pardisan.



Figure 5 Urban structure in Pardisan

Table 8 exhibits the scores of each indicator in more detail, as well as the total score for the environmental variable.

Table 8 The score of the environmental variable of sense of place

Indicator	Score	Relative Weight	Total
Public spaces quality	2.1	0.0764	0.16
Open spaces and parks	2.5	0.0713	0.1782
Variation of linkages	1.1	0.0464	0.051
Public transportation	1.25	0.0743	0.0928
Mixed-use	3	0.0432	0.1296
Safety and security	2	0.2	0.4
Enclosure	1	0.0764	0.0764
Visual uniqueness	1	0.0733	0.0733
Legibility	1.75	0.0952	0.1666
Emphasis on natural elements	2.75	0.1503	0.4133
Total			1.74

4.2 Strategy Development

Survey responses and interviews with 26 community stakeholders provided data for creative placemaking and identifying strategies to increase the sense of place in Pardisan. The survey included three semi-open-ended questions, asking the respondents to choose as many options that apply or add their opinion. These questions were: *What do you like about living in your neighborhood? What are the weaknesses of the Pardisan District? Moreover, How would you improve the public space?* Residents reported that environmental factors that lead to dissatisfaction included the little visual uniqueness (50.3%); number and distribution of neighborhood stores (20%); minimal accessibility (19.23%); lack of landmarks (11.5%), inclusive public spaces (9.6%), green spaces (8.6%); and low walkability (7.6%) and legibility (6.7%). In addition, interviewees identified essential future policies to improve environmental characteristics. Policies included creating more green and open spaces (57.5%), adding more mixed-use neighborhoods (28.5%), having better public transportation (17.8%), and making the area more pedestrian-friendly (13.3%). Residents also declared that one of the most critical actions to improve socio-cultural factors was better local government (6.6%).

05.0 DISCUSSION AND POTENTIAL CREATIVE PLACEMAKING STRATEGIES FOR PARDISAN

As discussed, this research goal was to evaluate the sense of place level among Pardisan district's residents in the developed areas by looking at the individual, environmental, and sociocultural variables impacting residents' sense of place to better understand the quality of life and residents' satisfaction in these areas. It also sought to propose practical strategies to improve the sense of place in future developments through creative placemaking and the lesson learned from the existing developments. To better understand how creative placemaking in new development areas works, this research assessed the current sense of place level in the Pardisan district through a survey. The data were collected by distributing questionnaires and analyzed by the principal component on JMP statistical software (see Tables 6, 7, and 8). This study also proposed strategies to increase the sense of place through creative placemaking in Pardisan (see Table 9). These strategies resulted from the open-ended questions on the questionnaire and following in-depth interviews with residents, community presidents, and local policymakers.

Although almost half of Pardisan's designated lands are still undeveloped, few studies have analyzed the results of the previous developments in the area. Since the development of the region started 24 years ago and is still going, the analysis of the existing situation, the consequences of the previous decisions and planning, and people's opinions and expectations can be analyzed and used to improve future residents' satisfaction, quality of life, and retain residents. In addition to unbuilt lands, findings from the study can potentially enhance the developed areas' condition, as discussed below. Thus, through analyzing the Pardisan district's sense of place as a developing area, this study proposed strategies regarding how creative placemaking can potentially impact new developments.

Even though Pardisan has a vital role in providing housing for mostly lower-income households that work in Qom, its residents' overall sense of place was relatively low. With regard to previous studies (e.g. Charkhchian, 2009; Fleury-Bahi et al., 2008; Ghafourian & Hesari, 2018; Hesari et al., 2019; Majedi & Lahsaeizadeh, 2007; Relph, 1976), the results of this research also emphasized the role of individual indicators, such as place satisfaction and personal experiences within a place, in increasing the perceived sense of place. Results showed that the perceived sense of place in residents' minds forms a sense of distinction, contributing to higher satisfaction with a place and longer residency. Moreover, the results of this study align with previous studies on Pardisan residents' satisfaction with their neighborhoods (e.g. Ghaempanah & Rahnamaei, 2021; Mosammam et al., 2017). Results showed that most residents, especially those who have lived there the longest, are unsatisfied with the built form and are considering moving out of the area. If this happens, widespread vacancy and real estate devaluation, along with more social and economic upheaval, will likely occur, which will stress the remaining Qom residents.

The analysis of the socio-cultural indicators of creative placemaking – for instance, shared goals and values, collective activities, culture, social participation, and social relationship – showed that Pardisan socio-cultural variable has a relatively low score. The continuation of existing trends and social threats, such as lack of social participation, sense of belonging among residents, public spaces for social interactions, and collective memories and sense of belonging among residents, might further reduce the sense of place among residents in the future.

The interviews showed that to increase the quality of socio-cultural features in Pardisan, the developments must consider the culture of the residents, social diversity, inclusive and diverse collective activities, and social participation. Therefore, we propose holding various exhibitions representing residents' culture in the area and adding more cultural artworks and monuments in the public spaces with the help of local designers to increase the reflection of the residents' culture. In addition, to increase social diversity, we propose attracting residents with different income levels by increasing inclusion through improving facilities and urban quality. We also suggest the establishment of activity and neighborhood centers to increase the opportunity for diversity of collective activities.

The present results also highlighted the importance of social participation, emphasizing co-produced and citizen-led creative placemaking as a bottom-up process instead of top-down going forward. As the literature suggests (e.g. Cook, 2020; Friedmann, 2010; Lima & Jones, 2020; Žlender & Gemin, 2020), policymakers need to involve residents in the planning process. Urban planning and design should be a bottom-up process focusing on designing with people instead of designing for people (Arnstein, 1969). The consequences of the latter are exacerbation of current problems, residents' dissatisfaction, low level of place attachment, and a weak sense of place, ultimately resulting in migration from the area and increased social issues. Moreover, the survey method also revealed that one of the issues regarding social participation, an integrated element of creative placemaking, is trust in Pardisan. The results emphasized that social engagement is better practiced when it is hierarchical since people trust their local representatives and participate better in social activities when informed by their trustees, such as their community leaders. Thus, based on the interview results, motivating private and public investments in the new developments, empowering local organizations and NGOs that are active in promoting social activities, holding cultural ceremonies and participating residents in their management, and establishing more local institutions to organize more cultural events will improve social participation in Pardisan.

Despite being effective indicators in promoting a sense of place and economic growth, results showed that environmental indicators have the lowest score in Pardisan. However, interviewees had suggestions for improving environmental quality. Specifically, they felt that the undeveloped lands presented a unique opportunity for future betterment and economic growth. These areas offer the potential for creating more local services, recreational areas, human-scale development, and monumental artworks and landmarks. Moreover, an existing canal provides opportunities to develop public spaces that emphasize the natural element, create a unique identity, and increase vitality in the area. Thus, we propose improving the Pardisan landscape by increasing the urban density around current public spaces, maintaining and emphasizing mountains' views, lighting improvement, and creating higher-quality views on the pedestrian paths. We also propose increasing the enclosure and human scale in the public spaces by adding vegetation on the edge of undeveloped lands, controlling the height of new developments, and avoiding creating undefined spaces among the buildings.

In addition, the respondents emphasized the promotion of diversity and visual uniqueness in Pardisan as an important objective for future development. Therefore, we suggest avoiding uniformity and creating diversity on different pathways by using their unique features, using unique but harmonious building patterns in new developments, creating an exclusive entrance for Pardisan, and avoiding the construction of long housing blocks in public spaces.

During interviews, residents also emphasized the role of art, landmarks, and cultural monuments in the vitality of their neighborhoods. These findings align with other creative placemaking studies (e.g. Bennett, 2014; Hughes, 2020; Schupbach, 2015). Similar to previous studies, Pardisan's residents noted that the lack of easily recognizable landmarks and the similarity of the buildings made it difficult to navigate the area. Moreover, the lack of cultural monuments in open spaces has resulted in little distinctiveness and identity. The current study shows that several other factors not discussed in previous studies, such as landscape, visual uniqueness, public transportation, accessibility, and urban spaces around natural elements, would provide a stronger sense of place in Pardisan. The results also showed that, unlike most creative placemaking studies in other areas, placemaking in the Pardisan district is very much entangled with including more artworks with religious content due to the culture of the residents.

In summary, the results of the interviews were more detailed and centered on the residents' suggestions to improve the sense of place and the quality of life in their neighborhood. Using qualitative inductive coding, the researchers achieved significant strategies for creative placemaking in the Pardisan district, as discussed in this section. Table 9 summarizes the guidelines and design policies developed using survey responses and interviews to increase Pardisan creative placemaking in more detail.

Table 9 Strategies for creative placemaking in Pardisan

Variables	Objectives	Design Policies	
Socio-cultural variable	Reflection of the culture of the residents	Holding various exhibitions representing residents' culture in the area Adding more cultural artworks and monuments in the public spaces with the help of local designers	
	Social diversity	Attracting residents with different income levels by increasing inclusion through improving facilities and urban quality	
	Increasing the opportunity for diversity of collective activities	Establishment of activity and neighborhood centers	
	Improving social participation	Motivating private and public investments in the new developments Empowering local organizations and NGOs that are active in promoting social activities and urban art Holding cultural ceremonies and participating residents in their management Establishing more local institutions to organize more cultural events	
Environmental variable	Form	Improving city landscape	Increasing the urban density around current public spaces Maintaining and emphasizing mountains' views Lighting improvement Create higher-quality views on the pedestrian paths
		Increasing the enclosure and human scale in the public domains	Controlling the height of buildings, especially in public spaces, to create a desirable enclosure Use of vegetation on the edge of the undeveloped lands to improve the street enclosure Avoid creating undefined spaces among the buildings
		Promotion of diversity and visual uniqueness	Creating diversity on different pathways by using their unique features Physical diversity and avoidance of uniformity Variation of neighborhoods in terms of physical features Using the unique but harmonious building patterns in new urban developments Creating an exclusive entrance for Pardisan Avoid building long blocks of housing in public spaces and increase the land-use diversity
		Emphasis on city landmarks	Strengthening the landmark system by locating and designing landmarks with physical and functional distinction Providing opportunities for public art and elements to represent citizens' identity in the public domain
	Function	Increasing public spaces	Using undeveloped lands for adding more public spaces Creating public spaces in the vicinity of shopping malls and universities to increase collective activities
		Increasing public space quality	Defining neighborhood centers with appropriate hierarchy in terms of scale and type of activity
		Improving public transportation	Locating public transport stations commensurate with the population density of each section of the Pardisan
		Mix usage	Adding more mixed-use buildings and areas by considering the variety of the social categories of the users Equipping residential areas with more needed facilities
		Promoting neighborhoods accessibility	Enhancing the hierarchy of access routes to neighborhoods

06.0 CONCLUSION

Understanding a place requires acknowledging the intimate human-environment bond and larger social-cultural contexts. Thus, evaluating and improving the sense of place through creative placemaking must consider the interaction between people and their places. Different individual, sociocultural, and environmental factors are involved in creative placemaking in new development areas. New developments should use a place-based, people-oriented approach that combines individual, socio-cultural, and environmental components. These variables are inseparable and can affect each other in many ways.

People seeking to mobilize creative placemaking strategies should work to understand the meanings assigned to places by individual residents as well as the collective meanings assigned to places by the whole society. They should also seek to comprehend the sociocultural values of each place and community. Chief among these values are individuals' personal goals, collective experiences, place identity, culture, the social relationship among residents, social participation, collective experiences of residents, public space quality, visual uniqueness, public artworks, monuments, and landmarks.

People do not have to live in a place long to develop a sense of place. New residents can quickly shape their sense of place if it reflects their culture and values. Moreover, social norms, sociocultural systems, and ideologies can significantly influence place meaning and values, and creative placemaking can help shape these factors. Thus, places encompass form, function, and social systems that are all involved in creative placemaking in new development areas.

Our study evaluated the sense of place and proposed strategies to improve the sense of place through creative placemaking in Pardisan, Qom, at a local level in Qom. However, further research is needed to propose creative placemaking strategies at bigger scales in cities, such as regional scale and city scale. Creative placemaking initiatives can also achieve more multi-scalar and interconnected strategies. Future studies on creative placemaking should also consider the role of creative placemaking in new development areas, especially at a community level, against various issues, such as economic decline and residents' migration.

6.1 Contribution to the Literature

This study analyzed the level of sense of place within new development areas and proposed practical strategies based on a unique qualitative analysis of residents' perceptions of and desires for their place, in a community that has been rarely studied. Analyzing the previous developments in the Pardisan district and seeking to understand the residents' desires in this study will help policymakers have a more comprehensive view of the ways to improve the urban quality in the existing areas and future developments in the Pardisan district using creative placemaking, which will eventually increase the quality of life of the current residents. It also helps the authorities, investors, and developers better plan for future developments in undeveloped areas to be more desirable to people from all walks of life to live and spend time in the area.

The study included quantitative methods to analyze the sense of place. Since the method focuses more on general creative placemaking, it can be adjusted and applied to other contexts in future studies. This study also developed a unique creative placemaking indicators analysis framework resulting from a wide variety of past literature, making it valid for other studies to evaluate the sense of place in other areas. Thus, the individual, socio-cultural, and environmental indicators of the creative placemaking framework in the study can be used for other areas to improve new development areas' qualities using creative placemaking. Furthermore, while other indicators frameworks have primarily been developed (and debated by researchers) to measure creative placemaking funding projects effectiveness (National Endowment for the Arts, 2021), this study attempts to put together an indicators framework for residents perceptions of place and desires for the future of a place through a creative placemaking lens.

Moreover, creative placemaking strategies, although specific to the Pardisan district, can be tailored and used for other areas. The present study's findings can help policymakers better plan to enhance the sense of place and consequent place satisfaction and life quality through creative placemaking in communities worldwide that face similar issues. Therefore, urban planners, designers, and authorities can use this study's results to take action to improve place quality in new development areas.

6.2 Limitations

After reviewing the literature, we noticed that there were limited studies on evaluating the sense of place and proposing practical creative placemaking strategies in new real estate developments, particularly in Iran. Therefore, there was limited previous research for our study to rely on, specifically in the same city, Qom. Another limitation was the lack of accessible demographic data in Pardisan, which led to the limitation of the research scope. Therefore, we had to rely on the accessible primary data and the survey results. Moreover, governmental institutions refused to engage in the study, which affected our interviews. Consequently, the interviewees were mostly limited to the residents of the neighborhoods.

Acknowledgement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. However, we would like to acknowledge the support from Ali Hosseini, who provided amazing insights for the research.

References

- Abusaada, H., & Elshater, A. (2021). Effect of people on placemaking and affective atmospheres in city streets. *Ain Shams Engineering Journal*, 12(3), 3389-3403.
- Amirzadeh, M., & Barakpour, N. (2021). Strategies for building community resilience against slow-onset hazards. *International Journal of Disaster Risk Reduction*, 66, Article 102599.
- Amirzadeh, M., Sobhaninia, S., & Sharifi, A. (2022). Urban resilience: A vague or an evolutionary concept? *Sustainable Cities and Society*, 81, Article 103853.
- Amirzadeh, M., Sobhaninia, S., Buckman, S. T., & Sharifi, A. (2023). Towards building resilient cities to pandemics: A review of COVID-19 literature. *Sustainable Cities and Society*, 89, Article 104326.
- Ando, T., Li, C.-K., & Mathias, R. (2004). Geometric means. *Linear Algebra and its Applications*, 385, 305-334.
- Arnstein, S. R. (1969). A ladder of citizen participation. *Journal of the American Institute of Planners*, 35(4), 216-224.
- Balug, K. (2019). The imagination paradox: Participation or performance of visioning the city. *Geoforum*, 102, 278-286.
- Bennett, J. (2014). Creative placemaking in community planning and development: An introduction to ArtPlace America. *Community Development Investment Review*, 10(2), 77-84.
- Beatley, T. (2011). *Biophilic cities: Integrating nature into urban design and planning*. Washington, DC: Island Press.
- Bedoya, R. (2013). Placemaking and the politics of belonging and dis-belonging. *GLA Reader*, 24(1), 20-21.
- Bernardo, F., & Palma-Oliveira, J. (2013). Place identity, place attachment and the scale of place: The impact of place salience. *PsyEcology*, 4(2), 167-193.
- Britannica (<https://www.britannica.com/place/Qom>).
- Buckman, S. (2016). Canal oriented development as waterfront place-making: An analysis of the built form. *Journal of Urban Design*, 21(6), 785-801.
- Buckman, S., & Hamdan, A. (2016). Add water and they will come? Demographic assessment of place-based canal-oriented development. *Journal of Urban Regeneration & Renewal*, 9(4), 353-366.
- Buckman, S. T., & Sobhaninia, S. (2022). The impact of sea-level flooding on the real estate development community in Charleston SC: Results of a ULI member survey. *Journal of Sustainable Real Estate*, 14(1), 4-20.
- Calderon, S., & Takeshita, E. (2020). A future of creative placemaking. In C. Courage, T. Borup, M. R. Jackson, K. Legge, A. Mckeown, L. Platt & J. Schupbach (Eds.), *The Routledge Handbook of Placemaking* (pp. 38-44). London: Routledge.
- Carmona, M. (2021). *Public places urban spaces: The dimensions of urban design* (3rd ed.). New York, NY: Routledge.
- Cartel, M., Kibler, E., & Dacin, M. T. (2022). Unpacking "sense of place" and "place-making" in organization studies: A toolkit for place-sensitive research. *The Journal of Applied Behavioral Science*, 58(2), 350-363.
- Charkhchian, M. (2009). *Analysis of the factors increasing attachment to the urban public spaces with emphasis on activity variety* (Unpublished doctoral dissertation). Iran University of Science and Technology (IUST), Tehran, Iran.
- Cook, K. (2020). Listen, connect, act. In C. Courage, T. Borup, M. R. Jackson, K. Legge, A. Mckeown, L. Platt & J. Schupbach (Eds.), *The Routledge Handbook of Placemaking* (pp. 56-63). London: Routledge.

- Courage, C., & McKeown, A. (2018). Introduction: Curating research, theory and practice. In C. Courage & A. McKeown (Eds.), *Creative placemaking* (pp. 1-8). London: Routledge.
- Courage, C. (2020). Introduction: What really matters: Moving placemaking into a new epoch. In C. Courage, T. Borrup, M. R. Jackson, K. Legge, A. McKeown, L. Platt & J. Schupbach (Eds.), *The Routledge Handbook of Placemaking* (pp. 1-8). London: Routledge.
- Courage, C., Borrup, T., Jackson, M. R., Legge, K., McKeown, A., Platt, L., & Schupbach, J. (Eds.). (2021). *The Routledge handbook of placemaking*. London: Routledge.
- Devine-Wright, P. (2009). Rethinking NIMBYism: The role of place attachment and place identity in explaining place-protective action. *Journal of Community & Applied Social Psychology*, 19(6), 426-441.
- Ellard, C. (2015). *Places of the heart: The psychogeography of everyday life*. New York, NY: Bellevue Literary Press.
- Fleury-Bahi, G., Félonneau, M.-L., & Marchand, D. (2008). Processes of place identification and residential satisfaction. *Environment and Behavior*, 40(5), 669-682.
- Friedmann, J. (2010). Place and place-making in cities: A global perspective. *Planning Theory & Practice*, 11(2), 149-165.
- Ghaempanah, N., & Rahnamaei, M.-T. (2021). Análisis de factores de éxito del establecimiento de nuevas ciudades (Estudio de caso: Pardisan town) [Analysis success factors of the new cities establishment (Case study: Pardisan town)]. *Nexo Revista Científica*, 34(04), 1231-1242.
- Ghafourian, M., & Hesari, E. (2018). Evaluating the model of causal relations between sense of place and residential satisfaction in Iranian public housing (The case of Mehr housing in Pardis, Tehran). *Social Indicators Research*, 139(2), 695-721.
- Gieseking, J. J., Mangold, W., Katz, C., Low, S., & Saegert, S. (Eds.) (2014). *The people, place, and space reader*. New York, NY: Routledge.
- Glover, J., Samir, N., Kaplun, C., Rimes, T., Edwards, K., Schmied, V., ... Woolfenden, S. (2021). The effectiveness of place-based interventions in improving development, health and wellbeing outcomes in children aged 0-6 years living in disadvantaged neighbourhoods in high-income countries – A systematic review. *Wellbeing, Space and Society*, 2, Article 100064.
- Green, A. (2021). Australian silo art: Creative placemaking in regional communities. *Journal of Place Management and Development*, 14(2), 239-255.
- Hesari, E., Peysokhan, M., Havashemi, A., Gheibi, D., Ghafourian, M., & Bayat, F. (2019). Analyzing the dimensionality of place attachment and its relationship with residential satisfaction in new cities: The case of Sadra, Iran. *Social Indicators Research*, 142(3), 1031-1053.
- Hughes, J. (2020). An annotated history of creative placemaking at the federal level. In C. Courage, T. Borrup, M. R. Jackson, K. Legge, A. McKeown, L. Platt & J. Schupbach (Eds.), *The Routledge Handbook of Placemaking* (pp. 27-37). London: Routledge.
- Indigenous Roots Cultural Arts Center (<https://iroots-mcknight-culturebearers.org/>).
- Jacobs, A. B. (1993). Great streets: Monument Avenue, Richmond, Virginia. *ACCESS Magazine*, 1(3), 23-27.
- Karssenberg, H., Laven, J., Glaser, M., & van 't Hoff, M. (Eds.). (2016). *The city at eye level: Lessons for street plinths* (2nd ed.). Delft: Eburon.
- Lee, Y. L., Said, I., & Kubota, A. (2013). The roles of cultural spaces in Malaysia's historic towns: The case of Kuala Dungun and Taiping. *Procedia - Social and Behavioral Sciences*, 85, 602-625.
- Lima, J. F., & Jones, A. J. (2020). Placemaking as an economic engine for all. In C. Courage, T. Borrup, M. R. Jackson, K. Legge, A. McKeown, L. Platt & J. Schupbach (Eds.), *The Routledge Handbook of Placemaking* (pp. 14-26). London: Routledge.
- Lynch, K. (1960). *The image of the city*. Cambridge, MA: The MIT Press.
- MacroTrends. (2022). Qom, Iran metro area population 1950-2022. Retrieved on 30 January 2022 from <https://www.macrotrends.net/cities/21514/qom/population>
- Majedi, S. M., & Lahsaiezhadeh, A. A. (2007). Relationships between contextual variables, social capital and satisfaction from quality of life: A case study in rural areas of Fars province of Iran. *Village and Development*, 9(4), 91-136.
- Markusen, A., & Nicodemus, A. G. (2014). Creative placemaking: How to do it well. *Community Development Investment Review*, 10(2), 35-42.
- Marshall, G. (2020). Placemaking in the ecology of the human habitat. In C. Courage, T. Borrup, M. R. Jackson, K. Legge, A. McKeown, L. Platt & J. Schupbach (Eds.), *The Routledge Handbook of Placemaking* (pp. 205-216). London: Routledge.
- Masterson, V. A., Enqvist, J. P., Stedman, R. C., & Tengö, M. (2019). Sense of place in social-ecological systems: From theory to empirics. *Sustainability Science*, 14(3), 555-564.
- Mosammam, H. M., Nia, J. T., Khani, H., Teymouri, A., & Kazemi, M. (2017). Monitoring land use change and measuring urban sprawl based on its spatial forms: The case of Qom city. *The Egyptian Journal of Remote Sensing and Space Science*, 20(1), 103-116.
- National Endowment for the Arts. (2021, February). *Our town: A framework for understanding and measuring the National Endowment for the Arts' creative placemaking grants program*. Washington, DC: National Endowment for the Arts. Retrieved on 29 August 2022 from <https://www.arts.gov/timeline/2010s/2011>
- Norberg-Schulz, C. (1975). *Nuevos caminos de la arquitectura: Existencia, espacio y arquitectura* [New paths of architecture: Existence, space and architecture]. (A. M. Durán, Trans.). Barcelona: Blume.
- Norberg-Schulz, C. (1996). *Nightlands: Nordic building*. (T. McQuillan, Trans.). Cambridge, MA: The MIT Press.
- Oppenheim, A. N. (2001). *Questionnaire design, interviewing and attitude measurement* (2nd ed.). London: Continuum.
- Pearson, L. J., Newton, P. W., & Roberts, P. (Eds.). (2014). *Resilient sustainable cities: A future*. London: Routledge.
- Pickett, S. T. A., Cadenasso, M. L., & McGrath, B. (Eds.). (2013). *Resilience in ecology and urban design: Linking theory and practice for sustainable cities*. Berlin: Springer.
- Punter, J. (1991). Participation in the design of urban space. *Landscape Design*, 200, 24-27.
- Quinn, T., Bousquet, F., & Guerbois, C. (2019). Changing places: The role of sense of place in perceptions of social, environmental and overdevelopment risks. *Global Environmental Change*, 57, Article 101930.
- Relph, E. (1976). *Place and placelessness*. London: Pion.
- Relph, E. (1997). Sense of place. In S. Hanson (Ed.), *Ten geographic ideas that changed the world* (pp. 205-226). New Brunswick, NJ: Rutgers University Press.
- Relph, E. (2007). Spirit of place and sense of place in virtual realities. *Techné: Research in Philosophy and Technology*, 10(3), 17-25.
- Salzman, R., & Yerace, M. (2018). Toward understanding creative placemaking in a socio-political context. *City, Culture and Society*, 13, 57-63.
- Schupbach, J. (2015). Creative placemaking. *Economic Development Journal*, 14(4), 28-33.
- Shamai, S. (1991). Sense of place: An empirical measurement. *Geoforum*, 22(3), 347-358.
- Silberbauer, G. B. (1994). A sense of place. In L. J. Ellanna & E. S. Burch (Eds.), *Key issues in hunter-gatherer research* (pp. 119-143). Oxford: Berg Press.
- Simard, M., & Jentsch, B. (2009). Introduction: Key issues in contemporary rural immigration. In M. Simard & B. Jentsch (Eds.), *International migration and rural areas: Cross-national comparative perspectives* (pp. 1-16). Farnham: Ashgate.
- Smaldone, D., Harris, C., & Sanyal, N. (2005). An exploration of place as a process: The case of Jackson Hole, WY. *Journal of Environmental Psychology*, 25(4), 397-414.
- Sobhaninia, S., & Buckman, S. T. (2022). Revisiting and adapting the Kates-Pijawka disaster recovery model: A reconfigured emphasis on anticipation, equity, and resilience. *International Journal of Disaster Risk Reduction*, 69, Article 102738.
- Sobhaninia, S., Amirzadeh, M., Lauria, M., & Sharifi, A. (2023). The relationship between place identity and community resilience: Evidence from local communities in Isfahan, Iran. *International Journal of Disaster Risk Reduction*, 90, Article 103675.
- Speck, J. (2013). *Walkable city: How downtown can save America, one step at a time*. New York, NY: North Point Press.
- Stähle, A. (2016). Economic values of a walkable city. In H. Karssenberg, J. Laven, M. Glaser & M. van 't Hoff (Eds.), *The city at eye level: Lessons for street plinths* (2nd ed., pp. 56-59). Delft: Eburon.
- Talen, E. (2011). Sprawl retrofit: Sustainable urban form in unsustainable places. *Environment and Planning B: Urban Analytics and City Science*, 38(6), 952-978.
- Tartari, M., Trimarchi, M., Ghirardi, S., & Sacco, P. L. (2022). A monument to whom? Artist positionality in community art-based projects. *Geoforum*, 131, 173-184.
- Tuan, Y.-F. (1979). Space and place: Humanistic perspective. In S. Gale & G. Olsson (Eds.), *Philosophy in geography* (387-427). London: Edward Arnold.
- Ujang, N. (2012). Place attachment and continuity of urban place identity. *Procedia - Social and Behavioral Sciences*, 49, 156-167.
- van der Hoeven, A., & Hitters, E. (2020). The spatial value of live music: Performing, (re)developing and narrating urban spaces. *Geoforum*, 117, 154-164.

- Vaughan, J., Maund, K., Gajendran, T., Lloyd, J., Smith, C., & Cohen, M. (2021). Determining and representing value in creative placemaking. *Journal of Place Management and Development*, 14(4), 430-445.
- Webb, D. (2014). Placemaking and social equity: Expanding the framework of creative placemaking. *Artivate*, 3(1), 35-48.
- Zebracki, M. (2020). 'Homomonument sounds like a poem': Queer placemaking 30 years on: A conversational dialogue with Thijs Bartels, author of *Dancing on the Homomonument* (2003). In C. Courage, T. Borrup, M. R. Jackson, K. Legge, A. McKeown, L. Platt & J. Schupbach (Eds.), *The Routledge Handbook of Placemaking* (pp. 194-204). London: Routledge.
- Žlender, V., & Gemin, S. (2020). Testing urban dwellers' sense of place towards leisure and recreational peri-urban green open spaces in two European cities. *Cities*, 98, Article 102579.
- Zuma, B., & Rooijackers, M. (2020). Uncovering the potential of urban culture for creative placemaking. *Journal of Tourism Futures*, 6(3), 233-237.