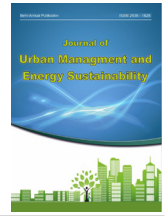


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CASE STUDY RESEARCH

Recognition and evaluation of Urban Spaces based on the Multimethodology Approach (Case Study: 16 European Urban Squares)

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ABSTRACT

Urban design is a multi-level discipline that includes several branches of engineering and design, such as urban planning, urban development, architecture, landscape architecture, transportation, economics, and laws. Public places are places where people go for individual and collective action, and, because of the social nature of mankind, urban squares, as the most important expression of social nodes, represent urban democracy. The traditional assessment of urban space, such as Square, about its specific qualitative dimensions, was more often thought to be a qualitative and general judgment that ultimately encouraged a range of values, such as Likert, or a zero-or-one human psychological property, for the type of content itself. Which generally led to a high error rate due to the quality of the evaluation. The purpose of the current research is to identify the nature of urban space with a phenomenological approach. The research is developmental, and first, using library resources and considering the collection and analysis of the concepts and categories of the subject of a social node such as cognitive classification square based on a matrix consisting of six cognitive criteria of supply Each of them is also subdivided according to the criteria. According to the cognitive process, 16 of the public spaces in Europe were evaluated. Considering the result of the evaluation of the HSE model from the selected squares for analysis, the San Marco of Venice in Italy, with an accumulated numerical quality of 95%, is considered to be the highest European urban square.

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1. Introduction

Urban design is a multilevel arrangement that includes several branches of engineering and design, such as urban planning, urban development, architecture, landscape architecture, transportation, economics, law, and so on. Public space is defined in different ways, which are generally based on the type of use, ownership, and goals. According to the opinions of the works, public places are public places where people come to work individually or collectively, and according to Mehta's words, a good public atmosphere follows the following qualities: Democracy, Considerable and Responsible. In the same opinion, the criteria for public space are also raised. The public space is further characterized by qualities such as utility, comfort and safety, safety, significance and all-inclusive, and so on. Talen is also a complementary interpretation of spatial analysis (land-space) for detecting things such as neighborhood, neighborhood center, middle edges of neighborhoods, and mixing, which is the same type of spatial distribution of various uses and proximity, which is the number and quality of places. Which can be accessed and can connect to urban areas in general.

Modern cities are likely to provide more and better services than their old structures. In any case, the quality of urban composition, particularly with the advent of the international style, worsened in the 1920s. In other respects, totalitarian movements, such as fascism and communism, made the global situation worse and more disastrous. Generally speaking, public spaces can, in their nature, be more surprising, more often when they lose their connection to a human scale under the name of size and scale. The basic element of classic urban compositions is the street and squares. These urban spaces are for the specific composition of the various spaces that are interrelated with the human scale. Street enclosures (usually commercially available) are enclosed in different dimensions, but at the same time within the public space, heterogeneous and regular textures provide elemental and imperfect urban tools that, as a result, eliminate the space hierarchy. And buildings are merely a remarkable game of masses in brightness. (Corbusier, 1931: 40). It was explained by the introduction of the

prehistoric style of the International in 1923, although the domination of the street corps seems unimaginable.

Space syntax knowledge (Hillier & Hanson, 1984: 45) is the appropriate product of embedding theories and tools used to analyze spatial morphology with specific uses in urban science, which was developed with the original research in 1970. The content of space layout in the GIS is targeted at modeling urban spaces. (Jiang & Claramunt, 2002: 295-309).

This study seeks to consider a single isolated point isolated from the network by assuming non-communication with other urban spaces. According to (Taylor, 2009) most of the attention is paid to urban design and legibility in aesthetics. According to case studies from European metropolitan areas, to assess the relationship between urban form and aesthetic experience (Isaacs, 2000: 145-180), there have been selected cases that differ in their urban texture composition with the type of spatial organization. Generally, taking into account the criteria of the square cognitive matrix, there are various varieties of qualities. However, the value of the aesthetics of the public space, such as the urban municipality, is not primarily considered, but the readability and quality of its occurrence are most appreciated.

The traditional assessment of a city like Square, concerning its specific qualities, is more of a judgment, the public space in its essence is not fixed and is chosen for the relationship between public and private activity. Urban space "was created when something happened." (Hempfer & Klaus, 2011: 44)

This relationship is still not mana but has changed over time in different historical periods according to indigenous conditions. Urban space is a space among cities, but the case of the square is the most typical example of such space, such as urbanization, resilience, alienation, heterogeneity, differences, and so on, are interpretations that are first discussed and have been a conversation and will be included in live and active discussions in this square. Architectural spaces in the city provide places like intersections and spaces for social interaction, although they cannot be identified with their local identities.

“We experience architecture in the form of its position” (Janson & Alban, 2014: 285)

At present, there are visible anomalies that re-configured these urban spaces. On the other hand, the politicization of urban spaces, as well as signs of a new permeability between public and private spaces, illustrates a kind of tendency towards public privatization, which is parallel to privacy.

2. Materials and Methods

2.1. Research State

The classic evaluation of urban spaces as the most important example of social nodes in the mid-scale, with its particular design qualitative dimensions, is mostly carried out in the context of qualitative assessments and generally based on individual judgments, the aesthetic, perceptual, and qualitative foundations of the body, forms the enclosed space in the city square. Urban squares are, in their essence, the point of encountering social interactions of people of the highest quality of their own, so that most of the time the history of a nation is also ranked. Therefore, trying to recognize this phenomenon for identifying the urban space in a city should be a priority in urban design science as the creator of quality in the lifestyle of people.

Recognizing this space requires criteria that can be categorized and designed for each of the design qualities, and ultimately used to analyze and navigate the design process. In a comparative comparison from the viewpoint of thinkers in the square of urban areas, there is no consistent assessment of the square of square quality, and most of them have emphasized the recognition of space with formal and functional criteria. Existing European squares can be the best examples to be evaluated in this study so that simulating the type of square in question in a criterion adaptation of the species and the use of a cognitive matrix can be one of the best methods for solving the problem of urban evaluation.

2.2. Research Methodology

The research is developmental, and first, using library resources (documents) and considering the collection and analysis of the concepts and categories of the subject of a social node such as

cognitive classification square based on a matrix consisting of six cognitive criteria of supply. Each of them is also subdivided according to the criteria. According to the cognitive process, 16 of the public spaces (urban areas) in Europe have been selected, due to the scoring of QRM Wolfrum's matrix metrics (Tables 1 and 2), which have a wide range of criteria. Based on the principle of the scoring of the cognitive matrix mentioned in Table 3, which is square-named by the multinational teams in a study entitled “Urban squares in European countries”, it can be noted that in the research, twenty squares in one Calculate the qualitative range of the distinction and the upper and lower limit, and calculate the average scores for other squares. Explaining that according to the criteria of the QRM matrix, the date of origin, the size, and the shape of the base are not considered as the desired quality. Therefore, the main criteria of this model as well as selected squares of the square can be presented in the Tables 1 and 2.

Figure 1 shows the selection of 16 cities in the European urban spaces, according to the table above, with 4 squares from Germany, 5 from Italy, 1 square from Hungary, Spain, Austria, Poland, the United Kingdom, and the Czech Republic as the upper and lower limit of square quality, this can be represented by the type of difference in the structured structures of the cognitive matrix, which is mostly considered in the square evaluation by the respondents of the questionnaire.

Each case sample has been evaluated individually by multinational respondents. This evaluation method has been matched with the adjusted questionnaire presented in Perovic S, Folic NK Research in 2012. The table below shows the combination of bipolar qualities and semantic scale in this questionnaire. By collecting the valued values of the respondents in the questionnaire, responses are followed up and before the 3- to 3+ scale to numbers 6-0 in the text, only positive qualities are used as a bold-criterion in Table 2-3. The approach to this research methodology differs from that used in Prussian and folic research, which includes the following aspects:

- The main objective of this assessment is

Table 2: Selection of sixteen case examples based on the QRM cognitive matrix and arrangement based on the number of qualities assumed in square observations-Evaluation **table of selected urban squares by QRM method**

No	QRM Matrix Six Criteria	
	Criteria	Index
1	Antiquity type	Ancient, Medieval, new era, the 19th century, Since the 20th century
2	Morphological Quality type	Entrance, Frontage, Expansive space, Deep space, Multi-branch pole, Square joint, Intersection, Inner-city, The hall, Yard (enclosed area), Land (arena), Decorative square, Garden, view, Widespread
3	Shape type	Rectangle, Trapezius, Funnel shape, Rounded shape, Stellar shape, Spatial passage
4	Size Type	Small, Medium, Large, Extra Large
5	Function type	Commercial, Traffic, Residential, Dramatic, and Public plans
6	Performative Potential type	Strolling, Outdoor, Scene, Ceremonial, Enter, Meeting, Convene, Empty

Table (3-1-1): Selection of sixteen case examples based on the QRM cognitive matrix and arrangement based on the number of quality assumed in survey observations

No	Square Name	Location	Score (Numbers of Quality)	No	Square Name	Location	Score (Numbers of Quality)
1	Piazza San Marco	Venice, Italy	17	5	Pariser Platz	Berlin, Germany	10
2	Residenzplatz	Wurzburg, Germany	15	6	Plac Zamkowy (Castle Square)	Warsaw, Poland	10
3	Staromestske Namesti (Old Town Square)	Prague, Czech Republic	10	7	Place des Terreaux	Lyon, France	9
4	Residenzplatz, Domplatz, Kapitelplatz	Salzburg, Austria	11	8	Covent Garden Market	London, Great Britain	5
9	Gendarmenmarkt	Berlin, Germany	8	13	Gartnerplatz	Munich, Germany	3
10	Plaza Alfonso II El Casta	Oviedo, Spain	6	14	Piazza dell Anfiteatro	Lucca, Italy	3
11	Max-Josef Platz	Rosenheim, Germany	5	15	Piazza della Santissima Annunziata	Florence, Italy	3
12	Piazza dei signori	Vicenza, Italy	5	16	Szabadsag ter (Liberty Sqaure)	Budapest, Hungary	3

based on space perception. Although it may be, the aspects of aesthetics have not been deliberately taken into consideration.

– Instead of assessing by photographic technique, respondents made selective spaces by exploring the inheritance of Google Earth.

– The response group was small, usually from

twenty people representing the three hundred members of its statistical community.

2.3. Range of study

Urban squares in this study are generally selected from European countries, including Eastern Europe, and the West, which is a type of

urban space formed in terms of size, confinement, and form rule. In terms of spatial geographic distribution, and historical cases, the community approach can be divided into several categories as a platform and government intervention policies. (Figure 1) Responses are regularly indexed and indexed in the square matrix, which consists of 16 selected case studies (the number of metropolitan areas under study) and 12 vector dimensions (the number of qualities proposed in the human mind assessment method).

2.4. Introduction of variables and research indicators

Eventually, in further analysis, the square analysis was carried out using HSE and subsequently targeted the variable of the 15th questionnaire according to the following table (Table 3.1)

Finally, the analysis cites the accumulated numerical quality in the center of the analysis graph of each square, which can be derived from this measure of the quality value of the urban space of the square.

2.5. Theoretical fundamentals of research

2.5.1. City Architecture

When discussing the urban phenomenon of urban design and architectural approach, it

is possible to touch on all social processes of urban architecture. We can feel the impact and effectiveness of architecture in the place of the city, and we must be aware of and appreciate the importance of the spaces that are affected by the encounter and the relationship between the two branches of the city.

Why are squares still considered valuable urban areas to be evaluated? Squares as outdated tokens are the old ones that have been forgotten about the design of a city that can only be discussed and studied by their value in contemporary cities. "To quote, in a close review, it's hard to describe the current conditions of the city, which includes housing, buildings, etc., which in its place, [...] [Are there?] (Maak, 2014: 10). In fact, the main problem is that by expressing the importance of this space, the squares, users beyond the primitive performance, show the orientations of tourists, while they must more than respond to the problems and complexities of modern cities to be on the other hand, the recent issue poses well the growing pro-political movement as false geography of the square. "Urban squares, often because the protests and revolutions have been staged, have become known. A kind of real phenomenon that has survived today. (Deutinger,



Figure 1: The number of metropolitan areas selected in 7 European countries



Figure 2: 16 Selected Squares Location and Area in 1:5000 scale

2014: 35) The Occupy movement, the Arab Spring, Soviet Color Revolution, Zuccotti Park in New York, Green Square in Tripoli, Al- Tahrir in Cairo,

Maidan in Kyiv, Taksim in Istanbul are just some of the places that are in some way associated with political and global events.

The names of the squares are also synonymous with these occurrences and events, and in some way carry the identity of that event. Why should these events and activities take place in the squares and continue to meditate for a few days and even for several months? In most cases, these squares also come with historical meanings.

Contemporary political activities, formed and flooded in squares, are reunited with its history, rebuilding memories and concepts. Squares are still the physical center for the manifestation of resistance because they are considered to be power centers. Art has a specific nature, also opposed to the basic operations of projects in the city, as well in line with the proper square of the square. In the squares, there is something catchy and catchy, an important part that does not completely overlook this construction output. These urban projects, in general, are interconnected with their operation locations and specific urban spaces. Succinctly, the squares are far more important than today. Activities are located in special squares, and in many cases, famous squares that are overflowing with historical richness can easily be distinguished. Squares are spaces that collect social and urban life. Architectural urbanism is associated with urban architecture as the main source of social production, which plays a major role in urban play.

On the other side of the square, on another scale, they are surrounded by the urban texture that is on the street or part of the city. But this is where the main question is asked where does the square end? What, in the words of [Bernhard Hoesli](#), is called the Transparent Border. ([Hoesli & Bernhard, 1997: 91](#)). As in the square of visualization of squares, although limited, it later becomes apparent that these metaphors are somehow a conjugate of applied arts. The idea of “the city as a scene” or “the city as a monotone” is always touching, but it is more apparent in the parallel supply of the city as a theater in its entirety. ([Bacon, 1977: 38](#))

“Architecturally, in the theatricality with theater and the scene, the main problem is not a questioning of its performance from the viewpoint of the audience, but the architectural experience as its actor” ([Janson, 2014: 280](#)). This kind of look at one Urban space has the potential

to happen because human beings can appear in the public domain due to their specific abilities. What can be said literally in such a way that “he (human) lives not only lives but experiences his experience” ([Plessner, 1975: 292](#)).

The obvious fact is that the elements and factors that characterize architecture as an occurrence are, in fact, the qualitative anthology of its occurrence. As a rule, situations with titles or scenes can be named, but they can be described as a contributor to an event. ([Lefebvre, 1992: 211](#)) An architectural position can serve as a whole or a public sphere with these interpretations. “

There is a world of change that can be likened to magic, “and they always have alterable architectural positions, a compliment that complements the interaction with urban space, an expression that might be for a square like [Walter Benjamin](#), to get used to architecture, it is at the same time a curiosity arousal. ([Benjamin, 2006: 120](#)) “An idea to solve a closed and limited situation cannot be emanated from a general theory” ([Hahn, 2011: 44](#)) Urban Places, can be considered in several ways; politically, given the historical, political, and narrative roles of an architectural approach and perspective, in the titles of the amount The value of their actual functioning can be seen in contemporary urban life, or the architectural aspect of its inherent nature, along with its particular function. Architectural urbanism can also be the theoretical basis for all matters, even solid and concrete masses. These masses play a role in the processes that separate them in the same description.

“The built environment is tumultuous.” ... [Although architecture is not exclusively affected by outsourcing factors, it has also created its realities and attributes. In short, architecture can be said in its essence ([Burkhardt, 2014: 3](#)). In fact, this super-fast reality has produced a new generation of urban truths that are more intrusive with more functional capacities, although only by referring to specific examples It can be seen and touched on the outer layer. Each square, in its context, is completely different from other cases. This research identifies specific categories to set goals for the creation of appropriate tools for urban design science. Accordingly, it can be admitted that urban architecture is still an

essential part of the urban debate that places, and this is important and important. The main purpose of being concise, includes the presence of the square, having features such as a skilled space in the expression, a dense atmosphere, aesthetic complexity, form, and materials, and expressing the style of architecture. With this principle of usefulness, openness, diversity in use, flexibility in meaning, the possibility of assignment, overall vision, and functional possibilities, this is what architecture itself summarizes, and this dialectical relationship as an architectural capacity about Urban space such as the square can be selected.

3. Findings and Discussion

3.1. Square classification

Square classification is based on the recognition of a phenomenon

Antiquity

In this criterion, the factor of history is considered as one of the factors and is about different qualities, forms, buildings, architects, sizes, and, in all cases, a section called the date and time of the emergence of squares. In this section, the date of the creation of the square is mentioned, and the squares that have changed over time and for various reasons, the periods related to the redevelopment of designs, the destruction caused by events such as wars or the renovations that have taken place in the process of restoration, maintenance, and maintenance of the square and important buildings based therein

and the time is related to each one. This criterion, as a component of personality categorization, plays an important role in recognizing the urban square. (Table 6)

3.2. base shape

In this section, the basic forms that can be considered as some of the squares studied below are divided into six categories by researchers, each represented by a specific symbol (Table 1).






3.3. sizes

In this criterion, the expansion of the area of the square is classified as a factor and is divided into 4 distinct identifiers of the total number of squares considered in most European countries, there are sizeable squares; an area of less than 5,000 square meters, an area ranging from 5,000 to 15,000 square meters, between 15,000 and 25,000 square meters, and a size of over 25,000 square meters. In this way, in most cases, the squares are very large or rectangular, or a combination of space and non-geometric shapes. (Wolfrum, 2015) (Table 2)

3.4. Morphological qualities

An analysis of morphology reveals urban designers to local patterns of development and the process of change in context. The main work in place is based on the analysis of how the evolution and evolution of the traditional texture evolved. Morphologists have shown that biological

Table 6: Criteria and Indexes of Antiquity in USCCM Matrix

Icon	Antiquity type	Index
	Ancient	The present form has been designed in ancient times (generally ancient Rome)
	Medieval	The present form has been designed in ancient times (generally ancient Rome)
	new era	Modern-day projects, dating back to the 16th century, clearly illustrate the idea of a general-oriented design and have been reframed in contemporary authenticity with modern thinking.
	the 19th century	The square is part of the secondary urban text in the industrial construction of the modern age.
	Since the 20th century	The squares, most of which have been designed or redeveloped at this time, are generally formed in the course of urban renewal projects.

complexes can be studied in terms of several key elements. These key elements are Conzen (1960) in this form: land use, building structures, separation pattern, and communication network. In England, the process of changing the construction of a medieval building with a fence in narrow and longitudinal parts perpendicular to the straight or curved path is well seen. Because the first part that was constructed in the piece was adjacent to the street, the development of the piece was formed in the block environment. (Conzen, 1960).

Loyer (1988) refers to the development and consolidation of the urban fabric in the 18th and 19th centuries in Paris, the process of developing industrial cities in the nineteenth century, and

the formation of suburbs in the twentieth century in a similar way (Whitehead, 1992). In many new countries of the world, there is no trace of fencing around the segments of a raster communication network: Mouden (1985) looks at the evolution of the shape of a building block, separation piece, and building patterns in the neighborhood of San Francisco's Alamo Square.

Some buildings, churches, cathedrals, public buildings, etc., will be more durable because of wider investments in material design, construction, and decoration (Moudon, 1985). These types of buildings may be particularly meaningful for residents and visitors and sometimes symbolize the city. In the absence of control criteria, other buildings will survive if they

Table 1: Criteria and Indexes of Base shape in USCCM Matrix











Icon	Shape type	Index
	Rectangle	The square is shaped like a regular rectangle.
	Trapezoid	The square is presented as a symmetric trapezoid.
	Funnel shape	The square is tight and tight and forms an open bowl.
	Rounded shape	The outer lines of the square are curved, elliptical, or circular.
	Stellar shape	The shape of the square is cut off as a symmetrical point in the center with the radial streets of the axis.
	Spatial passage	The square is designed as a direct passage
















Table 2: Criteria and Indexes of Size in USCCM Matrix

Icon	Shape type	Index
	Small	Maximum 5000 square meters
	Medium	From 5,000 square meters to 15,000 square meters
	Large	From 15,000 square meters to 25,000 square meters
	Extra Large	More than 25,000 square meters

are to adapt to new needs and changing needs. And that's where the buildings feature variability buildings that last over time generally have different uses or a focus on user experience. For example, a city house can first be a single-family residential unit, then become an office unit, and eventually become part of a student dormitory. The urban block defines a network of open spaces

and is a determining factor for the communication network. In addition to displaying and providing access to a property view, it provides the public with a network of overlapping areas of motion and social domains. (For example, outer space is the space that embraces the people's economic, social, and cultural exchanges and activities. This social space is considered to be a part of

Table 8: Criteria and Indexes of Morphological qualities in USCCM Matrix

Index	Morphological Quality type	Icon
	Entrance	The square is part of the entrance to the city.
	Frontage	The square is located in front of the dominant building (the dominant element of space), which is considered to be an airplane with an effective spatial cone.
	Expansive space	(According to Camillo Sitte) - The broad square is shaped along its long axis, which represents important buildings affecting the space.
	Deep space	(According to Camillo Sitte) - The deep square of the square is shaped along its long axis, with a building at the end of the axis, which is somehow in the depth of the square.
	Multi-branch pole	Several paths are disconnected in the square, which is a pedestrian and cavalry streamer.
	Square joint	Or the main part of its attachments, in the sense of two or more simultaneous space systems that represent the structure and paths of joining the square.
	Intersection	Two different morphological systems are in opposition to each other in the urban structure that creates an environment.
	Inner city	The opposite buildings, often enclosed, give the interior space, even if they have different designs. This character is often used in part of the square to be used as a general effect.
	The hall	The sense of enclosure and compact proportions formed from a square formed by a regular, often rectangular geometry, has an integrated and unified height from the skyline of opposite buildings.
	Yard (enclosed area)	Originally, the yard is a complex of buildings, and this open space is used as a public square.
	Land (arena)	A set of objects on the surface created relationships between the two, and the shape and size of the buildings, extending freely in the square.
	Decorative square	The layout and furniture of the city, as well as the type of vegetation used, have been decorated with character.
	Garden	The character of the square is generally formed by vegetation.
	View	Under the exciting and often high-profile position, it creates an overall square of view and a scene of visions that are more in pristine paths.
	Widespread	About the wide floor, the periphery of the buildings in the square seems to be low, which ultimately can be attributed to a large attribute of the square.

the general realm, which is compatible with the space of the alley, which is a social space. The pedestrian is interwoven with social interaction, while the movement of the cavalry is mere. Most forms of social encounter and interaction when

the car stops appear and provide a central point at the destination along the way. These are the main methods of displacement on foot or by a horse. The areas of motion and social spaces Have a significant overlap. With the development

Table 9: Criteria and Indexes of Morphological qualities in USCCM Matrix














Index	Function type	Icon
	Commercial	The square is also a shopping mall for business and pleasure with its surrounding buildings.
	Traffic	The character of the square is subsequently influenced by the passageway.
	Residential	There are significant proportions of buildings in the square, for example, a local area with residential buildings.
	Dramatic	The square has, in its essence or relation to important buildings, a credible performance.
	Public plans	The general and often cultural functions of the square buildings influence the square and character of the square.

Table 10: Criteria and Indexes of Morphological qualities in USCCM Matrix

Index	Performative Potential type	Icon
	Strolling	Without the need to have a destination, strollers walk around the square without aiming alone.
	Outdoor	Sidewalks are generally on the seafront (Corso), the shape of the square causes upward and downward mobility, which is usually adjacent to the water.
	Scene	The square is designed to be viewed and seen by the architectural design.
	Ceremonial	Following the layout and furniture of the city, the square is intended to provide ceremonial performance.
	Enter	As a room, one finds a sense of enthusiasm in the person's square. As inputs and outputs of square reactions are considered.
	Meeting	Meeting with acquaintances, roaming for some time, and then leaving space, is indeed a frequent occurrence in the square.
	Convene	The platform has a sense of political and social activity, rallies, and rallies, and offers a special concept of this.
	Empty	Often, the square lacks any stimuli for the activity or a particular behavior.

of various ways of moving, areas related to movement and social activities are divided into cavalry spaces and pedestrian movement (social space).

Leon Krier defines four types of urban spaces: three of them are traditional urban spaces. The fourth type of urban space is modernist. (1) Urban blocks are the result of communication networks (streets and squares). The pattern is categorically typologically. (2) The pattern of streets and squares is the result of block placement. Block shapes are categorized in this mode. (3) The streets and squares, in this case, have a completely formal shape. Public spaces are fully categorized. (4) Buildings, in this case, have official species, but the location of the buildings is completely accidental in space. (Leon Krier, 1990)

Contrary to *sitte* (1889) and Zucker (1959) who relied on the aesthetic aspects of spaces, Leon Krier emphasized the geometric foundation of space. He criticized modern urban spaces and preferred traditional spaces and forms and identified four urban space systems. The morphological qualities are a form of mass and space so this kind of displacement of masses in space can create qualities that can better be the square of the city itself, which is the intersection and the heart of these urban discharges (Table 8). These qualities are related to the shape of the

square, which is considered an urban texture considering buildings and other elements of space.

3.5. Function and Performative Potentials

The functional aspect of space consists of two things: how spaces work and how city designers can design better spaces. The use of space in terms of social and visual traditions of urban design, each with a certain operational perspective. For example, it is stated that it is only during a long march that designers can sense their existence in the real experience of a city environment. (Carmona et al., 2003) Since spaces make possible and easy operations, the urban design should be accompanied by an awareness of how people use these spaces. Well-designed urban designers generally learn, based on their initial experience, about urban spaces, places, and environments.

Many opinions, such as Jane Jacobs, focusing on the social structure of urban spaces (*the life and death of the great American cities, 1961*) in the cities of North America or Jan Ghel, taking into account the dimensions of formation and the lives of people in urban spaces, (*Living Between Buildings, 1971*) in Scandinavia and William H. White, in New York, concerning the psychological and sociological dimension, as well as concepts such as security and identity (*Social Life and*

1	Dull	-3	-2	-1	0	1	2	3	Dynamic
2	Repelling	-3	-2	-1	0	1	2	3	Attractive
3	Chaotic	-3	-2	-1	0	1	2	3	Arranged
4	Artificial	-3	-2	-1	0	1	2	3	Natural
5	Boring	-3	-2	-1	0	1	2	3	Interesting
6	Disturbing	-3	-2	-1	0	1	2	3	Comforting
7	Cacophonous	-3	-2	-1	0	1	2	3	Heterogeneous
8	Dysfunctional	-3	-2	-1	0	1	2	3	Functional
9	Tense	-3	-2	-1	0	1	2	3	Relaxed
10	Unsocial	-3	-2	-1	0	1	2	3	Social
11	Harsh	-3	-2	-1	0	1	2	3	Cozy
12	Uninspiring	-3	-2	-1	0	1	2	3	Inspiring
13	Plain	-3	-2	-1	0	1	2	3	Diverse
14	Flimsy	-3	-2	-1	0	1	2	3	Sound
15	Inaccessible	-3	-2	-1	0	1	2	3	Accessible

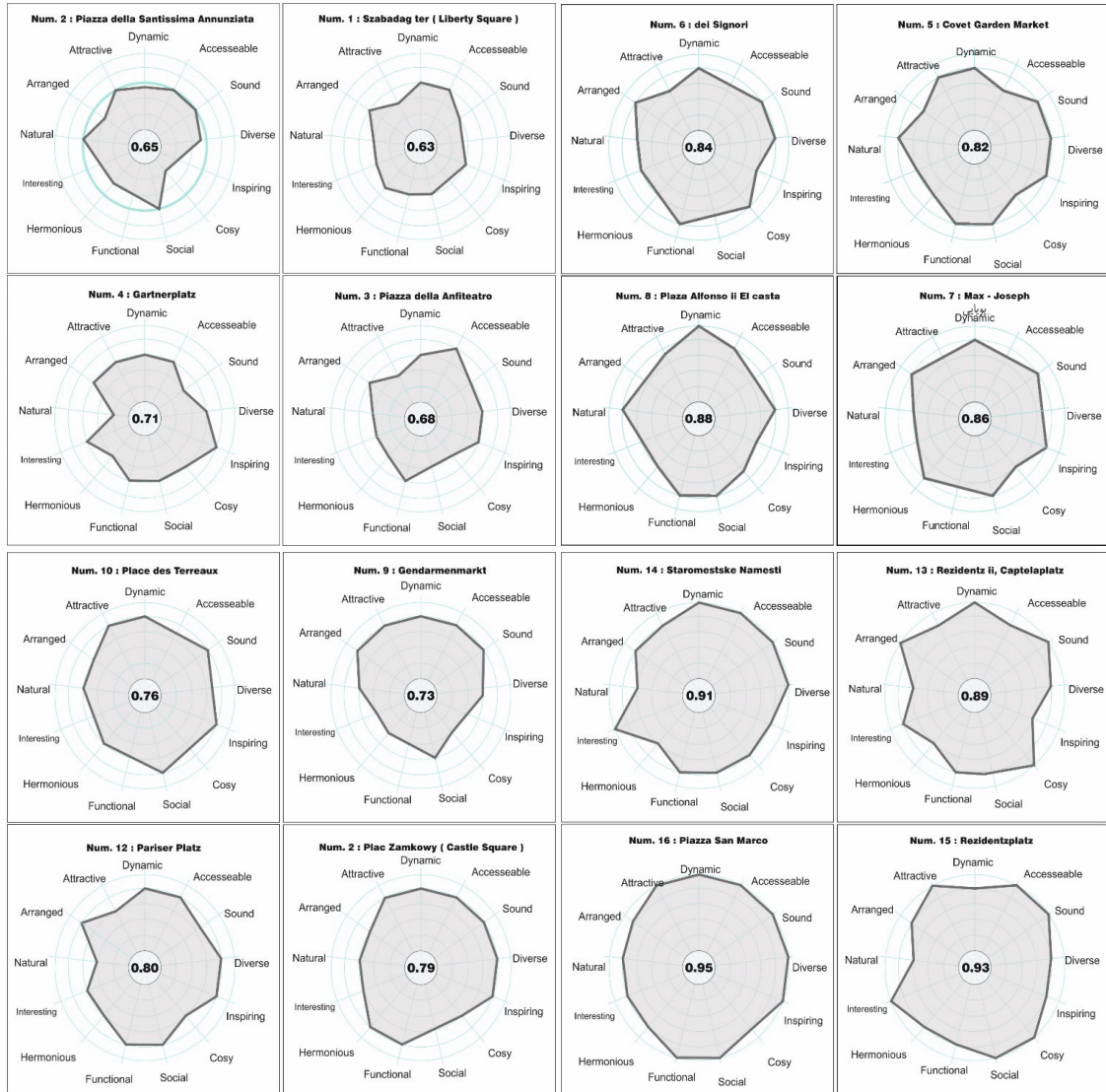


Figure 3: Human Subjective Evaluation. All squares (1-16) are listed according to the accumulated numerical quality in the center of each graph.

Urban Spaces, 1998). These writers include Clare Cooper Marcus and Vandy Sarkissian, focusing on the quality structure of urban spaces that people expect to be building as their users (housing design if people are concerned, 1986) and the public space project (how can I Changing the atmosphere), and guidelines for creating successful public spaces (1999) all rooted in the relationship between functions and space.

lovatt and O'Connor (1995), Zukin (1995),

and others have written about spaces that are on the verge of spaces, spaces that lie during everyday life outside the ordinary rules of outer space, where cultures Different meet each other and stand in opposition. The discovery of the environment may include participation in show programs and participation in the community, such as participating in lunch concerts, art exhibitions, street exhibitions, festivals, shows, markets, social events, and marketing over time

and various ceremonies. These show programs may include annual events such as the Edinburgh Festival, the Notting Hill Carnival of London, and New Orleans's Mardi Gras.

Carr et al. (1992) state that in addition to being meaningful (allowing people to establish strong relationships between their own private living space and the larger space) and being democratic (protecting the rights of all users and making space available to all) groups and providing freedom in practice) Urban spaces must also be responsive, that is, they are designed and managed to meet the needs of users. These spaces should be responsive to five basic needs: comfort, comfort, inactivity, active engagement with the environment, and the ability to explore the environment. Frequently good spaces are more than just a requirement. Therefore, based on these bases, one can derive the criterion of functional capacities from the theoretical framework (Table 9) (Table 10)

These capacities are related to the square of excellence associated with the types of activities and behaviors that are most evident in the square structure architecture.

3.6. Square Evaluation

3.6.1. Evaluation of 16 cases of urban squares by Human Subjective Evaluation (HSE) Method

Considering the course of the bases, recognition, and studies of urban areas based on the Wolfram matrix and also the evaluation, the square was subjected to the HSE method. Subsequently, the variable of the 15th questionnaire is described in the research method and based on the covenant method, was targeted according to the table. The main displacement of the square forming the matrix of the squares is derived from the matrix of quantities. By the principle of finding additional qualities in this topic, our correlations between all the matrices of the quality vectors are re-evaluated some of the answers are equated. For example, two-tier quality criteria such as cozy and comforting are 0.86 and 0.88, respectively. Therefore, the benchmark of comfort and relaxation has been eliminated in the leading analysis. The values of the responses for each location are normalized to the limit (0.1). Therefore, these measured quantitative and numerical values assume the

quality of the place as (normalized accumulated quality), which is summarized with the answers of the respondents in all urban areas shown in Figure 3. (Table 3-1-1)

Finally, the analysis mentioned the accumulated numerical quality in the center of the analysis graph of each square, which can be derived from this measure of the quality of the urban space of the square (Figure 3)

4. Result and Conclusion

Considering the result of the evaluation of the HSE model from the selected squares for analysis, the San Marco of Venice in Italy, with an accumulated numerical quality of 95%, is considered to be the highest European urban space, and squares such as *Residenzplatz* and *Staromestske Namesti* are low-rated Terry. At the same time, squares such as Liberty Square, which is larger in the scale of scale, have a lower quality in terms of audience visibility, so the main criteria for having a better spatial quality are more related to criteria such as morphological qualities and Performance and plans.

Many of the squares that are classified in this study are among the best examples of urban space in European countries; therefore, a qualitative proposed rating here may in some way create a self-specific disadvantage for the audience, because, with attention to The inherent existence of man and the quality of each person's perceptions of his taste from qualities such as beauty and tranquility, the relative likelihood of ranking is completely debatable. The HSE method is very simple, which adds many responses in numerical values between 0 and 1 in qualities. This can be considered more in future research than in the multifaceted square. In other studies, it is also important to conclude that the assessment of the urban space of the square, when the historic palm historic factor holds itself, needs more evaluation methods and techniques. Therefore, using other evaluation models such as the model of the geometry of the automobile (AGE), which met with three fundamental factors, measured and constrained the scientific research, which is evaluated in a change to the HSE model in a system.

The AGE method requires more accurate square

observations of urban space, due to the error in calculating whether the use of aerial photos and related software can fall into the room, although this kind of review, while appealing to it seems, however, that it has its hardships and problems, which, given the advanced models for detecting and applying aerial photos, can bring better results, while this method is not as certain as that.

Finally, using these evaluation methods, it is also possible to classify the urban squares of any country and extracted guidance in a supplementary study for the design attitude of these evaluations.

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