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Redefining Urban Public Square as Piazza through Metamorphosis in Architecture

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Abstract

Traditionally the public square 'has stood as an important element in the basic designs of cities depictions of its functions from the civic, spiritual, commercial, and leisure natural life. Metamorphosis is how an organism changes its physical form as a part of progress. In architecture, metamorphosis can be used to define by what means a building or a space transform as a facilitator. A piazza is a public space intended for civic use and characterized by adjacent buildings and/or streets. The key purpose of the piazza is to promote a variety of opportunities for societal interface and endeavours, to present relief and leisure, to grow and fortify the public domain, and to promote the pleasurable and widespread facility of the emerging fragments of the urban. By way of the growing urban cities, opportunities are obtainable through innovative growth to offer open spaces that propose enjoyment, relaxation, and recreation for the diversity of individuals on a daily, weekly, and yearly basis. The research includes a detailed literature review and the methodology through which I could be able to find the solutions in redefining cities' cultural aspects. Case studies were also taken into consideration. Hence this exploration aims to accentuate the importance of piazza which is a transformed style of public squares as it is a major architectural component that served as a recreational, commercial, and communal space in the past.

Keywords: piazza, public square, metamorphosis, urban planning, architecture

1. Introduction

Each year, millions of people leave their rural homes and travel to metropolitan areas, both inside their own nations and across international boundaries. Some of these people move just to broaden their horizons and improve their lives. (Fox, August 2, 2021.) The phrase revitalization, in its most basic definition, refers to a rebirth or resurrection of a place's circumstances and character after a period of decline. While cities and communities may appear to be static on a daily basis, they are always changing. The options available in cities and communities change over time due to population and job movements, new building and destruction, changes in land use, zoning, and infrastructural investment. (Grodach, 2016)

As the population increases people start to migrate from urban to rural areas for the betterment of their future and this may cause an increment in the rate of urbanization. A series of measures aiming at reforming an existing city structure, particularly in neighbourhoods in decline owing to economic, cultural, or social factors, is referred to as urban revitalization. Depending on local demands and urban trends, the type and extent of various interventions aimed at achieving urban revitalization varies. Regeneration, redevelopment, renewal, rehabilitation, conservation, restoration, reconstruction, revitalization, refurbishing, renaissance, and other terms are used to describe these processes. (PPP knowledge lab, n.d.) Essentially, urban cultures¹ are concerned with their identifying organization, the city, as well as the lifeways, or educational forms that emerge inside metropolises. Our mission is to evaluate the status quo, trends, threats, and existing opportunities in various local areas in order to focus on civilization for long-term urban growth.



Figure 1.1: Describing Metamorphosis

The word “metamorphosis” comes from the Greek μεταμόρφωσις (Metamorphosis, “transformation”). The process in which an organism undergoes a change in the physical form as a part of development. (Don't memorise, 2020) Metamorphosis is a general phenomenon in the living world, particularly among insects, exemplified by changes in physical conditions and their behaviour. A biological or paranormal process that transforms the nature or manner of an item or a person into something altogether new. It can therefore associate metamorphosis to a change in lifestyle or even natural terrain.

1.1 Metamorphosis in Architecture

Metamorphosis is a term used in architecture to describe how a structure or area transforms into a catalyst. It refers to the ability of materials to react in a timely manner as a result of technological advancements. Space metamorphosis is the ability to alter and adapt in response to a variety of users, uses, and times (desportes, 2015)

There are two main types of transformations:

- Physical transformation: each urban development requires the renewal of an existing place.
- Conceptual transformation: renewal of a concept being neglected in modern planning.

The major cities of Pakistan lack in many an aspect of architecture and urban planning, among various elements the key lack is the inability to promote some healthy and effective public spaces mainly public squares which were meant to be one of the most important architectural treasure back in time in connecting and responding the societies' cultural and historical identity. The people are experiencing the adverse effects of unplanned urbanization, congestion brought up in the city reduces the space for public spaces which can play a vital role in socio-cultural living and economic development. The architects and planners need to design spaces keeping in

mind the historic architectural elements (one of which is public square/chowk) that have almost been vanished in today's modern planning.

The focal point of this research is to analyse the behavioural patterns and cultural impact of people towards open spaces and built environments which will act as the transformation path between past, present, and the vision/concept for the future because the people are in continuous change adapting their needs and requirements with a modern enhancement so if we want to enjoy our cultural and historic identities equally, our environment must be dynamically improved for enhancing diversity and positive experience of urban living. This research study aims to focus on the literature regarding the piazzas through metamorphosis architecture which could be the transformed version of public squares/chowks. In addition to this the methodology on how we can transform the city's cultural aspects following the open-ended questionnaire results based on their opinion about the need for public spaces in Pakistan. Furthermore, the conclusion of the whole research study is also included.

2. Literature Review

2.1 Genesis of the term *METAMORPHOSIS*

Metamorphosis is a biological word that refers to an individual's dramatic change in form or structure following hatching or birth. Physical changes, as well as those affecting development and differentiation, are accompanied by biochemistry, physiology, and behavioral changes in the organism. Depending on the degree of difference between the two forms, the metamorphosis of the larva into an adult is a more or less difficult process. The transition might be slow, lasting a long time, and involving multiple intermediary phases; conversely, it can be completed in a single step. (Britannica, 2020) There are several examples of this sort of transformation. Frogs begin as eggs, develop into tadpoles, and eventually mature into adults. Fish, like salmon, must undergo transformations in order to migrate from freshwater to saltwater and back. Both transformations are stunning, but the insect world may have the most astonishing animal transformation. It is feasible for certain insects to start their lives crawling and feeding and then transform into a flying mammal. As insects mature and grow into adults, they go through a lot of changes. (Baluch)



Figure 2.1: Root words of Metamorphosis

The importance of the way users perceives the spaces emphasizes the value of designing places with identity and character. People, their everyday routines, their relationships with each other's and their motivation to live more sustainably are crucial to allow space metamorphosis to take place. (Pugajeva, 2015) On an annual basis, many people migrate towards the urban areas for a better quality of living which results in congested cities, urban sprawls, urban dead spaces, or under-utilized spaces which hugely affect the environment we are living in. In

contrast to all these elements, the main objective of architects, town planners, and every other individual is to perform their part by reducing the built areas and also lessen the extent of waste energy and expanding the potential of under-utilized resources for a better environment.

2.2 Sense of a place

A public space is a place where people go to do their everyday tasks. People may experience a flash of feeling for a place as a result of social involvement in a setting, which is referred to as the sense of place. The plaza is one of the public spaces with an urban focus. In the open environment, a plaza serves as a focal point for social interaction between people or groups. The conclusions of this study suggest that there are eight requirements for creating a plaza with a sense of place that will improve a city's liveability: street, identity, activity, scale, mental representation, accessibility, sociability, and comfort. (Sharene Stefania, 2020) People are said to have a sense of place when they have a feeling of belonging to a location or city they are connected with. When people first visit a new place, they feel a mixture of apprehension and excitement as they start exploring their surroundings. They will return to an area if they like it and it has provoked a positive reaction from them. As a result of this experience of returning to the site on a frequent basis and having that profound connection with the place, the 'space' becomes a 'place' of meaning and connectedness. It is especially crucial in public and outdoor settings. It is critical to comprehend the notion of sense of place in order for individuals to enjoy their surroundings and for more planners to develop places that make people feel at ease and joyful. There is a better feeling of place and security for the individual who is likely to return to the space if there are more "eyes on the streets" where many people assemble or have lunch and can see other people. (Jagannath, 2018)

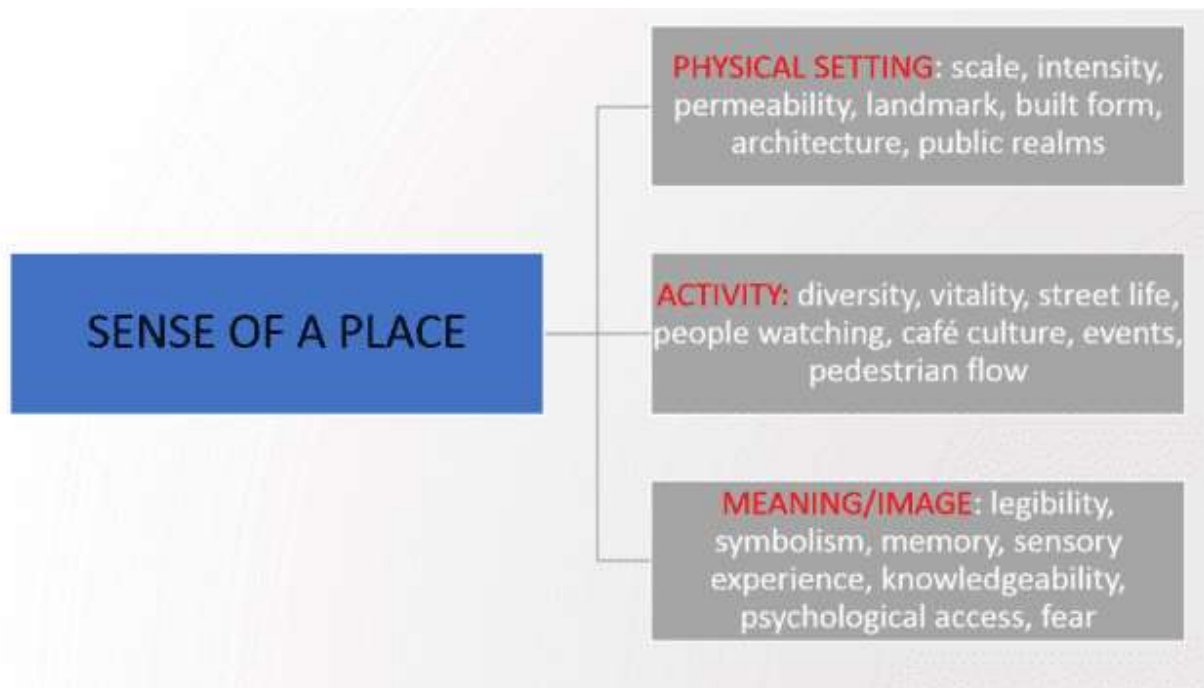


Figure 2.2: defining sense of a place

2.3 Piazza or plaza identification

A plaza is an open area meant for public use that is characterized by the buildings and/or roadways that surround it. Its major objectives are to provide a diverse range of social interaction and activity opportunities, to provide relief and relaxation, to develop and reinforce the public realm, and to add to the liveability and general beauty

of the city's centre and other growing districts. Plazas have always played an important role in the development of cities. European squares and piazzas, for example, have provided inhabitants with areas to socialize, trade, and rejoice. In a fast-changing city like Vancouver, it's also critical that plazas have a role and aren't just unused spaces between buildings. As the city expands, new development presents chances to create open spaces that delight, surprise, relaxation, enlightenment, and amusement for a diverse range of people throughout the day, week, and year. Public plazas promote socializing, eating, relaxing, exhibitions, bus waiting, and open-air markets, all of which enhance the quality of urban living and working by increasing diversity and extending cultural and educational opportunities that characterize urban residents' pleasant experience. (Larry diamond, 1992)



Figure 2.3: In 2007, Trafalgar Square was turned into a bustling urban village green for two days.

There are several types of spaces usually needed to design a better experience of Piazza/Plaza

- a) religious building settings
- b) Spaces for ceremonial events
- c) Shopping spaces/shopping streets
- d) Open markets
- e) Restaurants and cafes
- f) Community spaces

1. A public plaza's form is governed by its surroundings. A public square can have any shape, including square, rectangular, circular, triangular, or amorphous, despite the word "square" implying a certain shape. Camillo Sitte emphasizes the visual appearance over functionality in his work "City Planning According to Artistic Principles," defining the ideal morphological-aesthetic criteria of the urban square as:

- Enclosure; sealed and secured space,
- The centre should always be free,
- Monuments located on the perimeter,
- Concavity and artistic pavement.
- Surprising elements,
- Appeal of architectural façades,

Zucker proposes five different sorts of urban squares:

1. The closed square: the closed square has a regular geometric shape. The only thing that separates the closed square from its surroundings are the roads that go to it.
2. The dominated square: the space is dedicated to a single or group of structures.
3. The nuclear square, for example, has a focal point that creates a tension that binds everything together.
4. Individual squares that are naturally and/or artistically related.
5. When compared to other varieties, the amorphous square is unstructured and formless. (Memluk, 2013)

2.4 Impact of people on recreation, open spaces, and built environment

Parks and open breathing places in metropolitan settings are particularly regarded as the lungs of a city area, where people may breathe, relax, and feel more at ease. These open areas serve as a link between nature and man, providing respite from the routine of city life. Urban open space planning and design is not a new concept; it has been done for decades. Another important aspect of modern planning is public involvement, in which the people's views are directly reflected in the planning system in order to attain satisfaction. People's social, physical, and psychological demands differ from place to place, so do the characteristics of public open spaces or the image of a metropolitan area. In addition, the quality of open areas varies greatly between third-world towns or cities. Planning a town or municipality must thus take into account such variance and a thorough awareness of the local context. Open space planning and management confront a number of issues and rising demands. (Najnin, 2009)

Physical Fitness: Leisure activities improve one's health by lowering body fat percentages, lowering cholesterol and blood levels, and enhancing physical strength, mobility, muscular strength and endurance, body mass, and cardiorespiratory fitness. Overall, it increases vigour and energy levels, resulting in enhanced attention for academic work as well as an impact on class participation and attentiveness, all of which lead to improved learning. Since we all know, "health is wealth."

Mental Health: It is critical to have strong mental health in order to have good physical health. Participating in leisure activities can help to relieve stress. It provides you with energy as well as a feeling of balance and self-esteem, all of which might make you feel less nervous and sad. There is also a stronger urge to study because it may be used to assess knowledge learned in the classroom. It promotes emotional stability and resilience by allowing tension and anxiety to be released. As a result of these activities, students become more self-reliant, confident, and self-disciplined.

Improved quality of life: Leisure activities contribute in the development of a healthy balance between academic demands and mental and bodily well-being. Recreation offers a wide range of effects. Self-fulfillment, interpersonal skills, self-expression, leisure skills, techniques, and methods, physical prowess, creative expression, and aesthetic sense are all improved. These qualities are advantageous to persons who suffer limits in their everyday life. As a consequence, recreational activities can be used as a therapeutic technique (Lee, 2000). Physical activity promotes the rehabilitation of participants' physical strength, which has deteriorated due to a lack of exercise, as well as the development of their latent ability for self-realization. Individuals become more optimistic and positive in their outlook on life as a result of this, making it easier for them to deal with common day-to-day issues. (Devi, n.d.)

2.5 Impact of communal, open spaces in the environment

Public places are more controlled and ordered than communal spaces. They give all of the benefits of public areas while excluding the negative aspects such as crime and rubbish mounds. Regardless of the architectural form, common areas should be included in every structure.

- Interaction with others

Do not minimize the importance of your structure in society. Buildings may do more than merely offer a place for people to undertake their everyday business. They have the ability to draw strangers together to converse.

Adding community areas to your building is the finest and most efficient strategy to encourage such social interaction. Coworking spaces (if it's an office building), party areas, walking paths, coffee shops, playgrounds, community centres, or just a shared courtyard are all possibilities. These kinds of places promote social

interaction, making your building more user-friendly. Once you've achieved neighbourliness through employing these areas, your structure will no longer be considered a single structure, but rather a vibrant community.

- Knowledge and ideas exchange

It is uncommon for individuals to converse openly with one another. They do, however, form bonds over time by exchanging job tips over a cup of coffee in the lovely common place you created. As a result, social spaces in the building become the primary location for spontaneous information exchange. People from all backgrounds get to know one another while exchanging views and being open-minded.

- Racism and Inequality Reduction

When different groups come to an understanding, they begin to value each other's distinctions, which they might otherwise regard as inferiority factors. However, people are often not permitted to leave their circle and mix with people of different races. (Arch20.com, n.d.)



Figure 2.4: Times Square New York- hustling public crowds

3. Methodology

With the help of different sources like internet, books, theoretical study, research papers, published papers, articles, dissertations etc. I made sure to get complete knowledge of how the transformation is taking place in years, their forms, and their shapes. The major aim of this research is to analyse the behavioural patterns and cultural impact of people towards the open spaces mainly communal spaces as public squares and or pizza and built environment. It can be achieved through several research methods as personal observations, literature review and questionnaire which is a close ended one.



Figure 3.1: Research methodology steps

3.1 Personal observations

For many years, participant observation has been employed widely in sociological and anthropological investigations. In recent years, the number of qualitative studies employing participant observation as a data collection method has increased in the education sector. Interviewing, observing, and analysis of documents have all been included under the umbrella term "ethnographic approaches" in recent years. The goal of this research is to look at observation, primarily participant observation, as a data gathering strategy in qualitative research. The history of participant observation, the goals for which it is utilized, observer postures or roles, and further information on when, what, and how to observe are all provided here. (Kawulich, 2005) With the help of personal observation, we can explore the behavioural patterns and cultural impact of people.

3.2 Literature review

I used numerous pieces of literature, including books and articles, at the start of the project to communicate a clear concept of public spaces and urban squares, as well as the relevance of urban squares in society and influencing qualities of public spaces. With the help of different sources like internet, books, theoretical study, research papers, published papers, articles, dissertations etc.

3.3 Questionnaire survey

A questionnaire is a sort of research tool that includes a series of questions intended to collect data from participants. These instruments are set up like an interview, with written or spoken questions. Questionnaires can be sent through email, phone, paper, or in person, and they can be quantitative or qualitative. They are not required to be completed in front of a researcher.

On questionnaires, you'll find open-ended or closed-ended questions, or a combination of the two. Respondents can answer in their own words, with as much or as little detail as they like, to open-ended questions. Respondents to closed questions are given a list of predefined replies from which to pick. (Lucid, 2021) The survey was close ended, short and simple and it will be asked from every age group and profession. We can get the most of it by questionnaire so that we analyse the impact of people.

From the above methodology we can conclude that by adopting these steps we can be able to achieve our probable outcomes. It will help us to understand the need of transforming the concept of our cultural spaces and also gives us a futuristic approach towards the metamorphosis. The method including literature review,

questionnaire, and personal observations would be beneficial in taking better steps to complete the research in a specific and successful manner.

4. Data Analysis

The estimated responders for questionnaire survey are 50 persons. All the responses or the outcomes from the questionnaire survey is written below:

4.1 Responses from Appendix A

The questionnaire was filled out by people of all ages, genders, and occupations so that we could obtain feedback from everyone in our community about how essential it is for us to make cultural public places a part of our daily lives.

Table 1: Many people are not satisfied with the public space situated in their neighbourhood, most of the people remain neutral

Very satisfied	9.3%
satisfied	23.3%
Neutral	17.9%
Not satisfied	40.2%
Very dissatisfied	9.3%

Basically, it depends on the people living in different areas, but most of the people said that we need some sort of activity spaces as we used to play during our childhood and due to the congestion, they do miss all those cultural elements.

Table 2: Responders are not satisfied with the public space situated in their neighbourhood; they don't have any public space within 5-6 minutes' walk from their homes

Yes	28.6%
No	71.4%

Many people said that they don't have any public or leisure space within 5-6 minutes' walk from their houses which states that we created so much congestion in our urban areas that we forget to provide these types of spaces for people due to the reason they miss their culture in urban areas and usually go to their villages to enjoy them.

Table 3: Responders responded on asking that which of the following factors limit your stay at the current public spaces

Limited variety of opportunities	52.4%
Lack of furniture such as seating	9.5%
Lack of shades and shelter	23.8%
No access of toilets	11.9%
Others	2.4%

The most important factors required in any kind of public space, our immediate neighbourhood spaces lack of these that's why many people don't prefer to go there so we ask them about that and they responded one factor the most which is of the limited variety of opportunities.

Table 4: Easily accessibility of people to the multi-functional spaces like parks, markets, cafes, communal spaces in your immediate neighbourhoods

Yes	26.4%
No	71.6%

As we live in the cities which are so congested that we do lack in proper planning with placing the public spaces as priority so people responded that they don't have an easy access to enjoy these.

Table 5: What people think about the public spaces in their immediate neighbourhoods lack

Too far to walk	60%
Safety barriers such as roads, railways, ponds	10%
Hygienic conditions	6.7%
Safety issues	23..3%
others	0%

We don't have enough green public places because of a lack of effective planning. These types of spaces are too far from their houses to go by walk and that's why they usually prefer to go by automobile.

Table 6: People are not so satisfied with the current situation of public spaces or multi-functional spaces in Hyderabad and Karachi

Very satisfied	4.5%
satisfied	20.5%
Neutral	17.3%
Not satisfied	46.4%
Very dissatisfied	11.4%

People are dissatisfied with the existing state of multi-functional spaces in our cities, owing to a lack of effective design, infrastructure, and administration.

Table 7: Most responders choose the most important priority on asking that what role play the public spaces and culture in your and your family lives

The most important priority	51.2%
A top priority	32.6%
Not very important priority	14%
Not Important at all	2.3%

As the people migrate from rural to urban areas, they can't enjoy the open leisure and activity spaces, they use to go to their villages for that and prefer to have the same kind of spaces in our urban areas. Responders said that the cultural and open spaces are their topmost priority.

Table 8: Most of the people said that if any of the public space be created in their neighbourhood, they would like to go there by walk rather than any kind of automobile

Yes	97.7%
No	2.3%

When we talk about piazzas, we learn that they are entirely based on pedestrian movement, so I asked the people if they would prefer to go there by walk or still use a car if one were built in their neighbourhood, and they said they would prefer to go by walk because we already have too much traffic and noise in our cities, which has an impact on our environment, so why not enjoy a place that is vehicle-free, which is a positive sign for me to provide.

Table 9: People would love to see the space where they can gather freely without a fearing any kind of vehicular movement

Yes	79.1%
Why not	18.6%
Never	2.3%

Table 10: Facilities which satisfies the need of additional facilities if any kind of public space be build should consists

On asking about the additional facilities, responders said that they would love to see a place which is a combination of communal gatherings, social interaction, and cultural basis.

4.2 Data analysis of personal observation

This thesis requires a visit to the public space and observe the space and through personal observation I have come to a point that in some areas where we have public spaces like parks and communal spaces the people living there are fresher and more active as compared to the ones living in congested urban spaces which proves that the public spaces are essential for our health, and it also promotes our culture.

The people of Hyderabad and Karachi need these type of spaces as we have in our past like public squares which serves as the communal gathering and due to which we have low rate of crime and immoral activities. It fosters a sense of community, which has a significant influence on society's cultural and human behaviours.

4.3 Data analysis of Literature review

Literature review helped me in analysing the type of public spaces and the people's impact on open spaces and the built environment. It's all about how people engage in public areas and the relationship they have with the environment. On the street or in city squares, for example, people can form social networks.

In public settings, it is vital to give opportunities for people to meet new people.

5. Conclusion

A broad variety of places are included in public spaces. People are the most important aspects of a city, and without public spaces and the preservation of our cultural importance (the notion of chowk or chowk, which was a gathering place), it is difficult to form physical and mental bonds in the public and urban environment. We need to focus on transforming (through metamorphosis) our lives by putting architecture and culture in contrast with each other.

"Development allows humanity to progress but at the same time, it risks destroying culture. We have to realize that we have a very strong rural tradition and that we can preserve that." Wang Shu (Architect-Pritzker prize 2012)

6.Recommendations :

This topic emphasizes the critical role of public spaces in urban environments, especially in the context of preserving cultural significance while embracing modern development. As Public square sadder Karachi have all features and re generating the old space with new approaches .through this we achieve Preservation of Cultural Heritage in Urban Design, Human Centered Urban Development, Balancing Modernization with Cultural Preservation and Educating and Engaging the Community. The success of preserving and integrating cultural heritage into urban design relies on community engagement. Educating the public about the value of cultural spaces and involving them in the design process can ensure that these spaces are cherished and well-used. Host public workshops, exhibitions, and discussions that explore the significance of cultural spaces in urban environments. Involve local communities in the planning and decision-making processes to create spaces that reflect their values and needs. These recommendations aim to guide the creation of urban environments that respect and integrate cultural heritage while embracing the potential of modern development.

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