# Urban Squares

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## 1. INTRODUCTION

From the beginning of the civilizations, humans have chosen 'Settlements' as one of the ways of life. These settlements got a systematic makeover through the passage of time and extensive systems of housing, transportation, sanitation, utilities and communications were established. These settlements then came to be known as 'City'. The philosophers and planners started coining definitions for cities like Sir Patrrick Geddes sees it as a 'Biological Organism' while George Hugene Haussmann sees it as a 'System of Roads and Services'. Le Corbusier's utopian city also had streets and squares as the defining factor of the city shape. To make the cities more humanistic and lively, the key was to encourage the interaction among the residents and hence increasing sociability of the city. The planners discovered great potential in having public spaces in forms of Squares, Streets, Parks, and Playgrounds. So in this report, we shall see the need and importance of Urban Squares within the cities.

### 1.1 Definition: Urban Squares

Urban Squares (also known as town squares, city center , plazas or piazzas among other names) are spaces that forms foci of the hierarchy of public spaces, acting as a platform for exchange of social and economic activities and are spatial representation of civic pride and community expression.

These are the strong representation of cities' identity and communities' cultural background. From the dawn of settlements, city center or squares have been the place where people of the community gather and 'urban life' takes place.

### 1.2 Overview

Urban squares are visualised as 'hardscape' large flat surfaces in the city center surrounded by buildings and abutting roads. They tend to attract people because they are safe, welcoming, vibrant and comfortable to be in. Worldwide, successful urban squares have some features and characteristics in common despite of their differences in socio economic backgrounds and geographical settings.

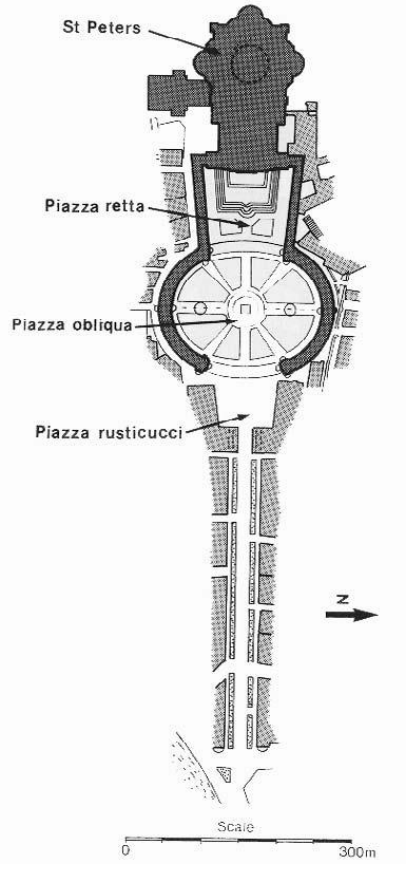



Fig. 1: St. Peter's Square, Rome

The sustainability of squares depends upon the ease of access to it and when populated, the availability of utilities to support the users to remain in the space for some time. The microclimate plays a huge role as 'Thermal Comfort' is the most essential criteria for success of squares.

The architectural characteristics of urban squares are representation of their past and speaks volumes about the discipline and sense of aesthetics of the community. This makes visitors feel welcomed into the city by allowing them to glance at the details while surrounded by the city people, interacting and sharing their experiences.

### 1.3 Role

According to Urban Planner Lewis Mumford, the humanization of inhabitants and acculturation is the primary objective of the cities. In the year 1992, leading architectural historian Spiro Kostof in his book 'The City Assembled' defined some of the basic functions of Urban Squares;

- **Being a part of Transport system:** They act as gathering points for intersection, gathering and waiting points for both the pedestrian and vehicle traffic.
- **Commercial Activities:** These squares encourages the pop-up markets in the city, which has been the safe haven for the street vendors throughout the history.
- **Games and Sports:** In the Roman Empire, squares have been the central spot for various sports.

Urban Squares are the open spaces surrounded by built masses. They acts as 'voids' within the city and play vital role in the context of mass and void composition of the city. The ratio of mass to void determines the structure of the city; whether it is too cramped up or a fairly open city. Hence, squares acts as a stabilizing force, especially in our overcrowded contemporary cities.

## 2. HISTORY

Around 6000 years ago, the first city formations appeared and the city squares were established right at the intersection of important trade routes. In this chapter, we shall go through the various civilizations and embodiment of urban squares into their city planning.

### 2.1 Greek Cities (900 BC – 30 AD)

'Agora' is a Greek word which directly translates to the word 'Assembly'. It was the Greece's open place in the city where political, social and economic activities took place. Democracy played an important role in shaping Greek cities. The geometrical form of Agora was usually rectilinear; either a square or a rectangle.

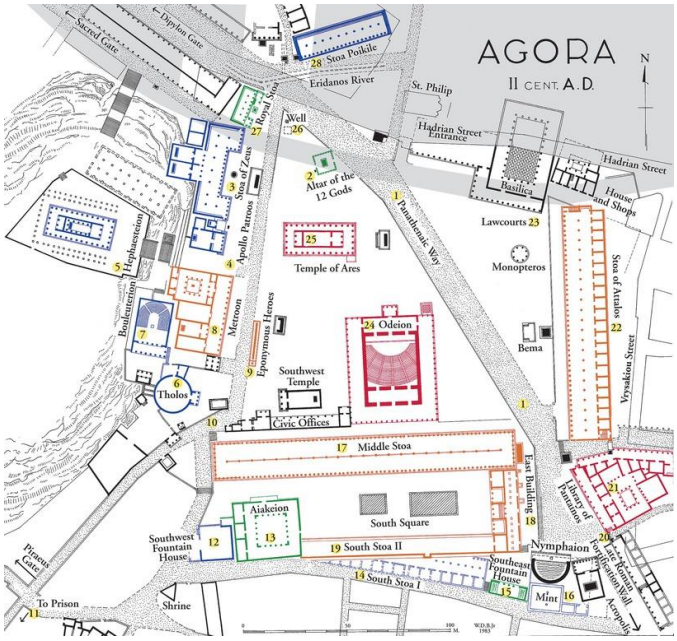



Fig. 2 Agora of Athens

## 2.2 Roman Cities (27 B.C. – 1453)

According to Lewis Mumford (1961), the Roman forums (squares) were the combination of 'Agora' and 'Acropolis' as it embodies more activities (such as shrines, temples, the hall of justice and council houses) with formal order. During the republican period, the forums were the heart of the city. But after collapse of Roman Empire, churches became the focus of daily life. Most of the open spaces were designed around the religious buildings. So in European countries urban squares are used for religious ceremonies and as market places.

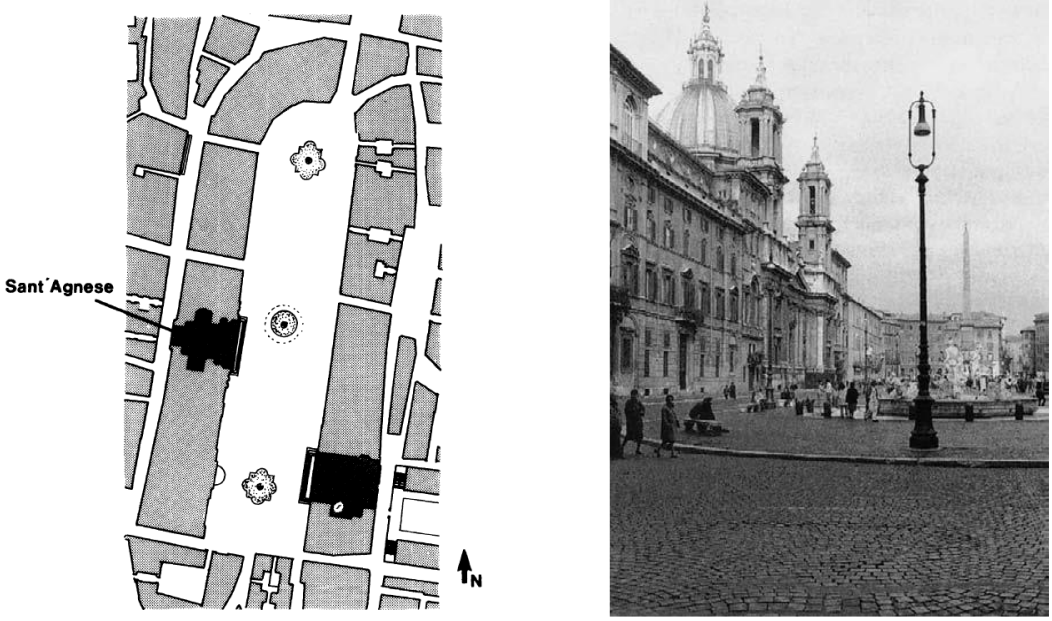



Fig. 3 Piazza Navona, Rome.

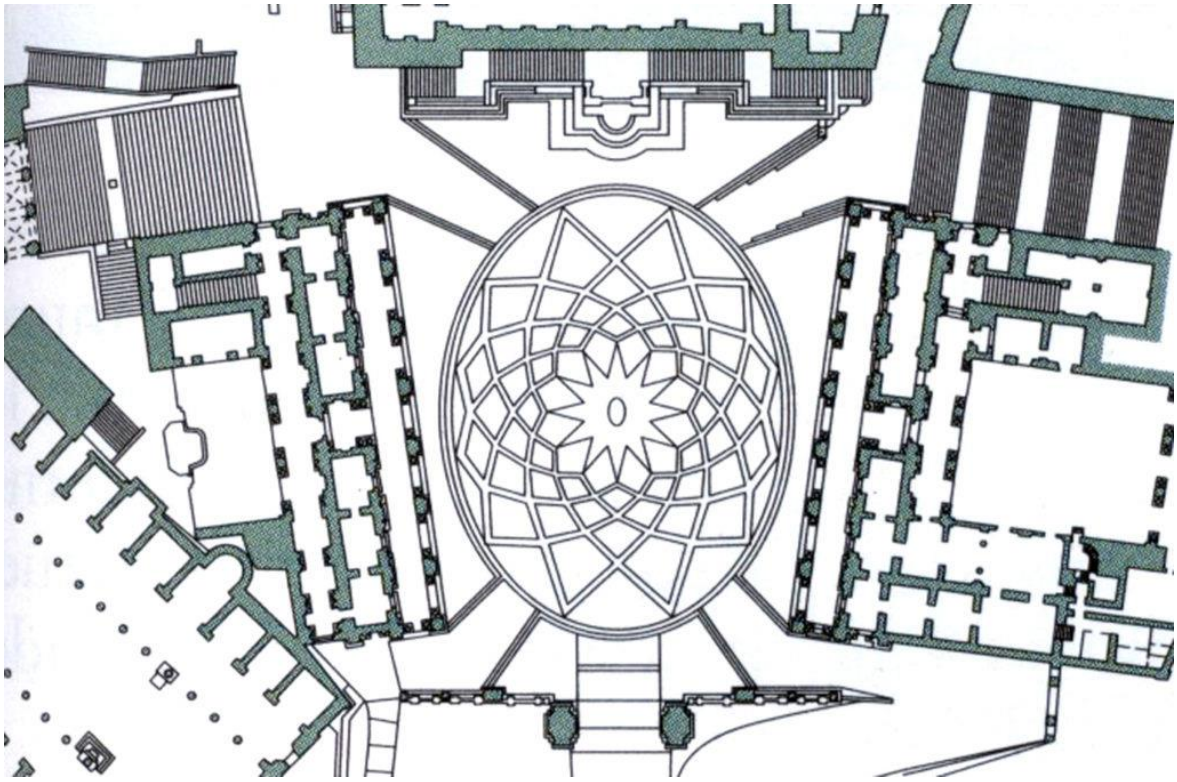
## 2.3 Neo-Classical Cities (1300-1830)

This era includes the Renaissance period (1300-1600) and the Baroque period (1600-1830). With the changing economic, political and philosophical perspectives, the city morphology changed drastically.

In the Renaissance period, formal designs with symmetry and order became the design principles for urban squares. Monuments and fountains additions to the public squares were done to improve the aesthetics of the environment.

In the Baroque period, axial order, balance and hierarchy were the guiding principles of the design. Open spaces were designed to create visual and ceremonial effects. In the classic example of Piazza del Campidoglio, the concept of "dynamic motion in space" was introduced by the architect Michelangelo.

Fig. 4: St. Piazza del Campidoglio



## 2.4 Industrial Revolution (1760-1840)

In the 19th century, industrial revolution caused a landslide in the realm of city designs. Establishment of railway networks lead to urbanization and city limits increased dramatically. The emergence of arcades, markets, grocery stores etc. lead to new public spaces, especially for women. With the increased population, physical infrastructure of the cities began deteriorating. By the end of 19th century, concerns about environmental degradation and community health lead to parks movement. Instead of streets and squares huge green areas started emerging. With the increased dominance of motorised vehicles, the squares were given away to crossroads. Also, new habits of shopping in the malls were also seen as reason for decreased popularity of urban squares.

## 2.5 Ottoman Cities (1299-1920)

In Islamic countries, the city life revolved around the mosque and that's where the urban squares were established. It is evident in the examples of Turkish settlements. The western style of urban squares were not been seen in Islamic countries. The city planning was influenced by Roman and Byzantine period and can be clearly seen in Istanbul's current city structure. In these countries, squares are surrounded by religious and public buildings. For example, today's Sultanahmet square, once famous as hippodrome of Constantinople is surrounded by Sultanahmet Mosque and Hagia Sofia Museum.

Fig. 5: Sultanahmet Square

## 3 FORMS OF URBAN SQUARES

Under this chapter, we will discuss different forms of urban squares proposed by two of the leading authors; Camillo Sitte (Austrian Architect & City planning theoretician) and Paul Zucker (German architect and critic).

### 3.1 Camillo Sitte

In his book 'The Art of Building Cities, 1889' determined squares as a series of artistic principles;

i. **Enclosure:** It is the primary feeling of being in an urban environment. Urban squares should also be enclosed. The key to enclosed feeling is the way corners are treated. The more overlapped or complete they are more the feeling of being enclosed.
ii. **Positive Space:** The architectural treatment of the surrounding building's facades, play a vital role in creating a mental positive space. The vernacular architectural details will eventually add up in creating a space with positive vibes.
iii. **Shape:** They can be basically divided into two types; 'Deep' and 'Wide', depending on the main building being tall and narrow or low and long. The **depth** of the square is determined by need to appreciate the main building (ratio 1-2depth: 1height). Also the width of the square is dependent on the perspective effect (ratio less than 3width: 1height).
iv. **Monuments:** The center should be kept free and the monuments could be located on the edges or off center.

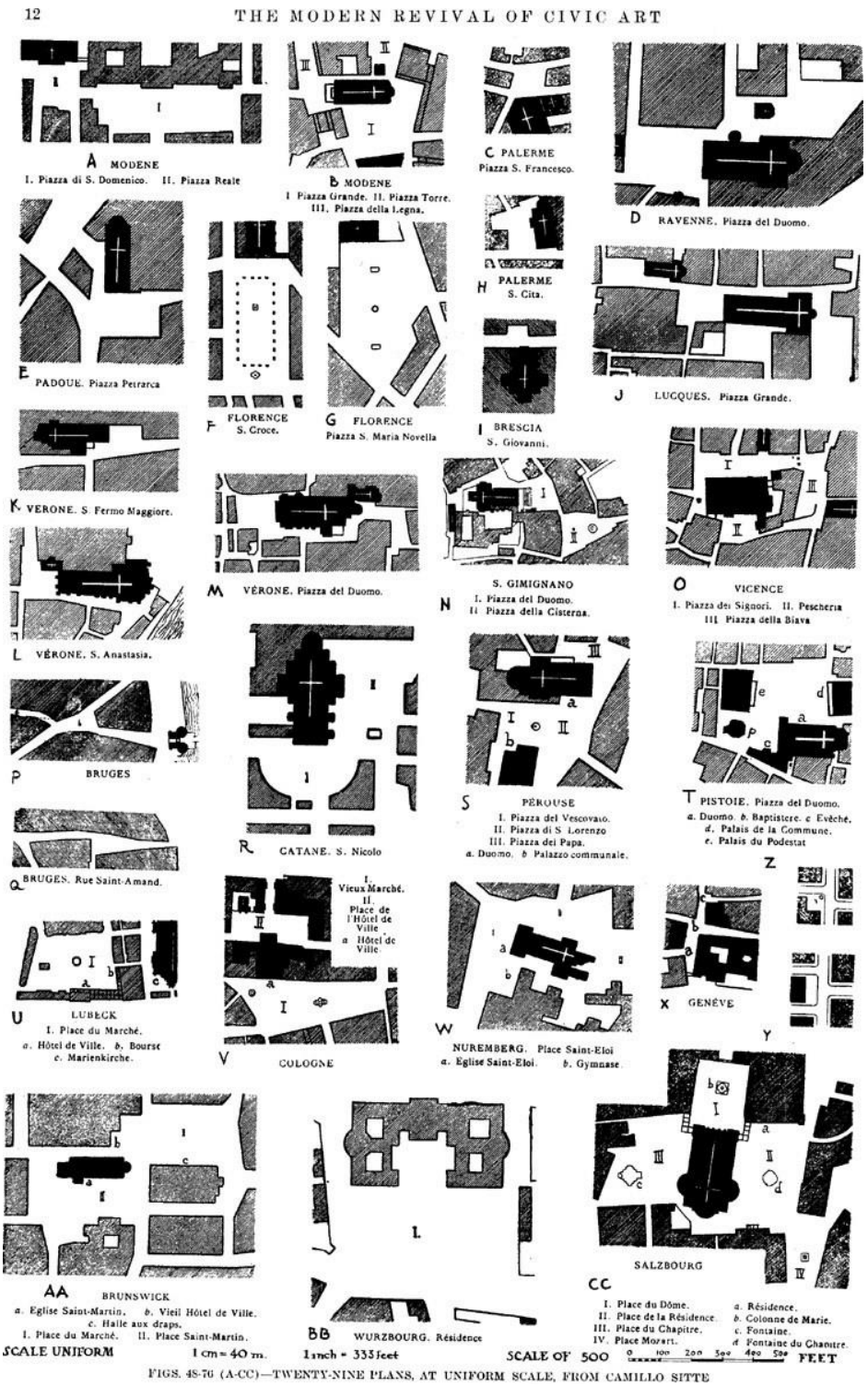
### 3.2 Paul Zucker

Paul Zucker (1959) proposed five types of urban squares as follows:

i. **Closed Square:** It is a complete enclosure only accessible by leading streets. It would generally be in regular geometric shapes and in some cases redundancy of architectural components or building façade types. It is usually referred as an area enclosed by the buildings.
ii. **Dominated Square:** In this case, the space is directed towards a focal point or main building. These squares are often the view point or foreground for many monuments. Classic examples being Piazza del Campidoglio and Piazza della Rotonda.
iii. **Nuclear Square:** It is basically a space formed around a strong center. It has a central feature, powerful enough to create a sense of space and charge the space with a force which holds the whole nucleus together.

iv. **Group Squares:** These are the spatial units combined to form larger compositions. These can be linked with each other either by axial relationships or can be grouped around a dominant building.

v. **Amorphous Square:** These are poorly designed spaces with no sense of boundaries and lacks in defining any type of form or shape.




FIGS. 48-76 (A-CC)—TWENTY-NINE PLANS, AT UNIFORM SCALE, FROM CAMILLO SITTE

Fig. 6: Forms of Urban Squares

## 4 DESIGN CRITERIA

Although universal design principles of urban squares can't be defined easily, it is possible to identify some basics that would help planners and designers through the design process. For designing urban squares in today's ever changing world, it is important to understand contemporary urban environments.

Unlike the old settlements, today's urban areas are discontinuous, diverse and multipolar. Globalization has triggered changing economic and social structure of cities and has led to ever expanding boundaries and decentralization of the cities. Society today has more spatial and social segregation than ever in history. Globalization has made our cities multi-cultural and multi-ethnical more than ever. Therefore public realm has to be more heterogeneous in nature, which can serve every section of the society. Although, designers must be aware of the loss of identity in public spaces and should see to it in decision making, design and planning process.

Keeping in mind the diverse urban environments, some design strategies for public squares are discussed below.

Designing urban squares involves two major dimensions; **functionality** and **visual appearance.** Functionality refers to the various activities fitting into that place. On the other hand, visual appearance is about the form, aesthetics and imagery. The relationship between these two dimensions determine the character and success of urban squares.

Stephen Carr in his book 'A Public Space (1993)', wrote that public place should be;

i. **Responsive:** spaces that allows relaxation, discovery and active and passive engagement.
ii. **Democratic:** access to all groups of society.
iii. **Meaningful:** People must be able to make connections with the place, their lives and the world.

Richard Rogers, the British architect defines successful public places as places which pay dividends for the cities, build civic pride, increase tourism and economic investment, and contribute to health and quality of life.

Some of the major criteria for designing is as follows:

### 4.1 Form

An urban square's form is influenced by its surroundings. Even though the word 'square' indicates a form, it can be in varying forms like rectilinear, circular, triangular or amorphous. Camillo Sitte

gives importance to visual appearance over functionality and defines the ideal morphological-aesthetic criteria of the urban square as;

i. Enclosure; closed and protected
ii. The center should be free
iii. Monuments on the perimeter
iv. Existence of elements of surprise
v. Attractiveness of architectural facades
vi. Concavity and aesthetic pavement

Rob Krier (Urban designer and theorist) focused on elementary geometry when developing a typology of urban squares. In the realm of urban spaces, Krier introduced various modulating factors like angling, segment, addition, overlapping and distortion. He suggested that combining these modulating factors with basic urban forms (like rectangle, triangle, circle etc.) results in regular and irregular urban forms.

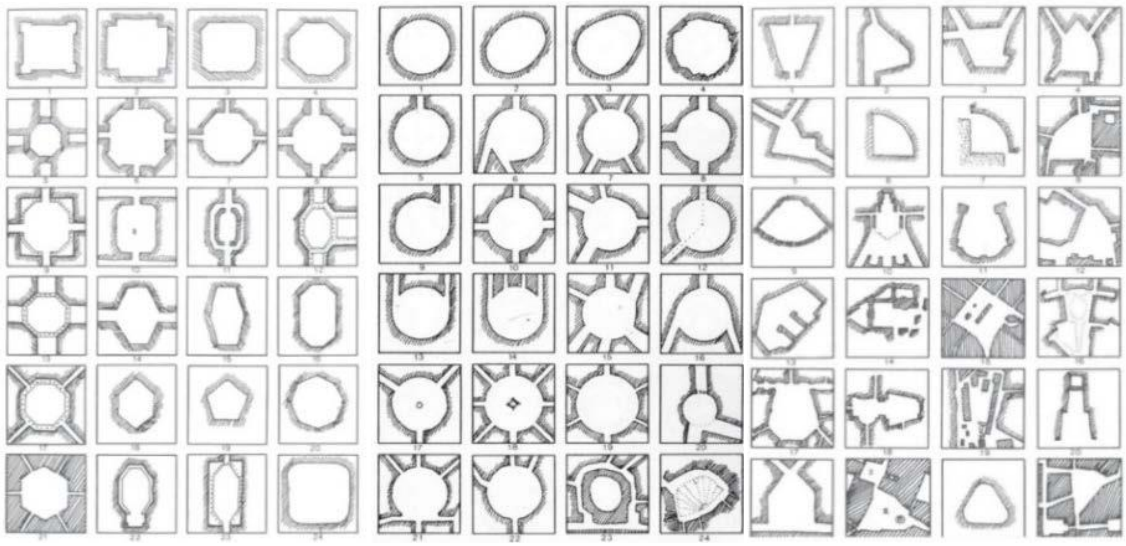


Fig. 7 : From left to right, rectangular form, circular form and triangular form

### 4.2 Location and Size

Throughout the history, urban square's locations are often at the intersection of main trade routes. Human presence and the activities are essence of urban squares, hence it must be located centrally in the city.

In the contemporary decentralized cities, choosing a single central location is difficult. So while selecting different locations, the links and connections between these locations should be established to sustain the continuity in urban form. Traditionally squares were located next to

government buildings or religious places, but in today's modern world the squares are located near shopping malls and commercial center/buildings.

Size is the basic aspect of public square design. The size is often determined by Public Square's location, abutting landuse and activities nearby. The most conventional method is to forecast number of users. Thus, we must focus on "Concept" of place and possible user activities before determining the size.

Several researchers have tried to give the ideal size of the square.

i. According to Kevin Lynch, 12 to 24 meters for each side and 100 meters for length would be the ideal size.
ii. Alexander suggests a maximum of 22 meters for small squares.
iii. Gehl suggests a dimension of 30-35 meters for the optimum size of the square, so people could recognize each other from far ends.

Also, the perception of size of urban square depends on the scale and density of the surrounding buildings. Squares surrounded by taller and dense buildings, would appear smaller than there actual sizes. A common guideline of Building height to Square width ratio can be followed which ranges from 1:2 to 1.5:2 to create a strong sense of definition of space.

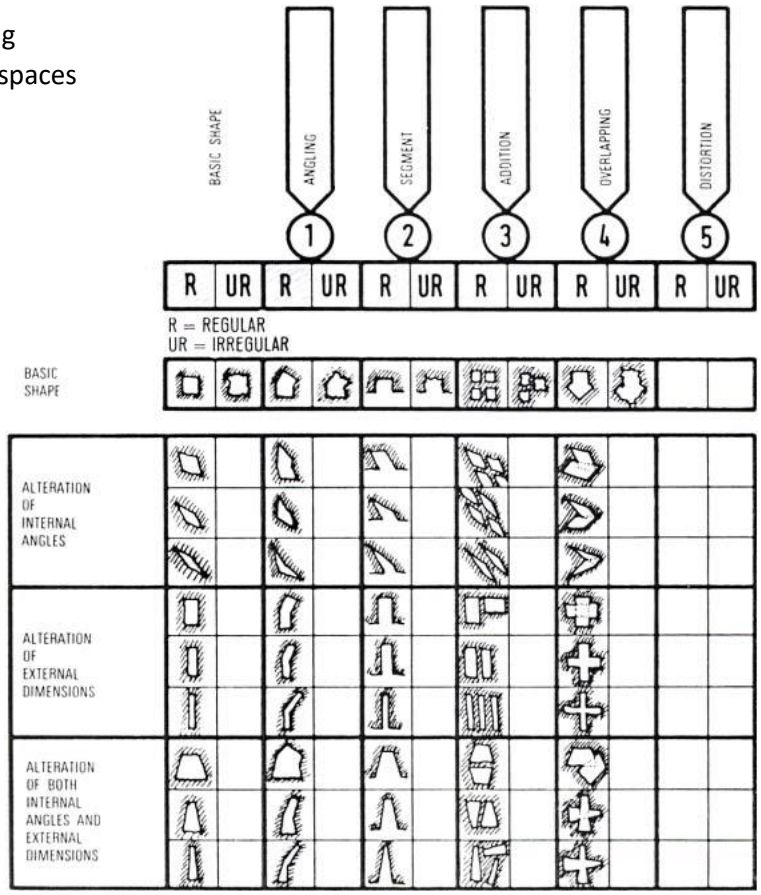



Fig. 8: Modulating factors of urban spaces

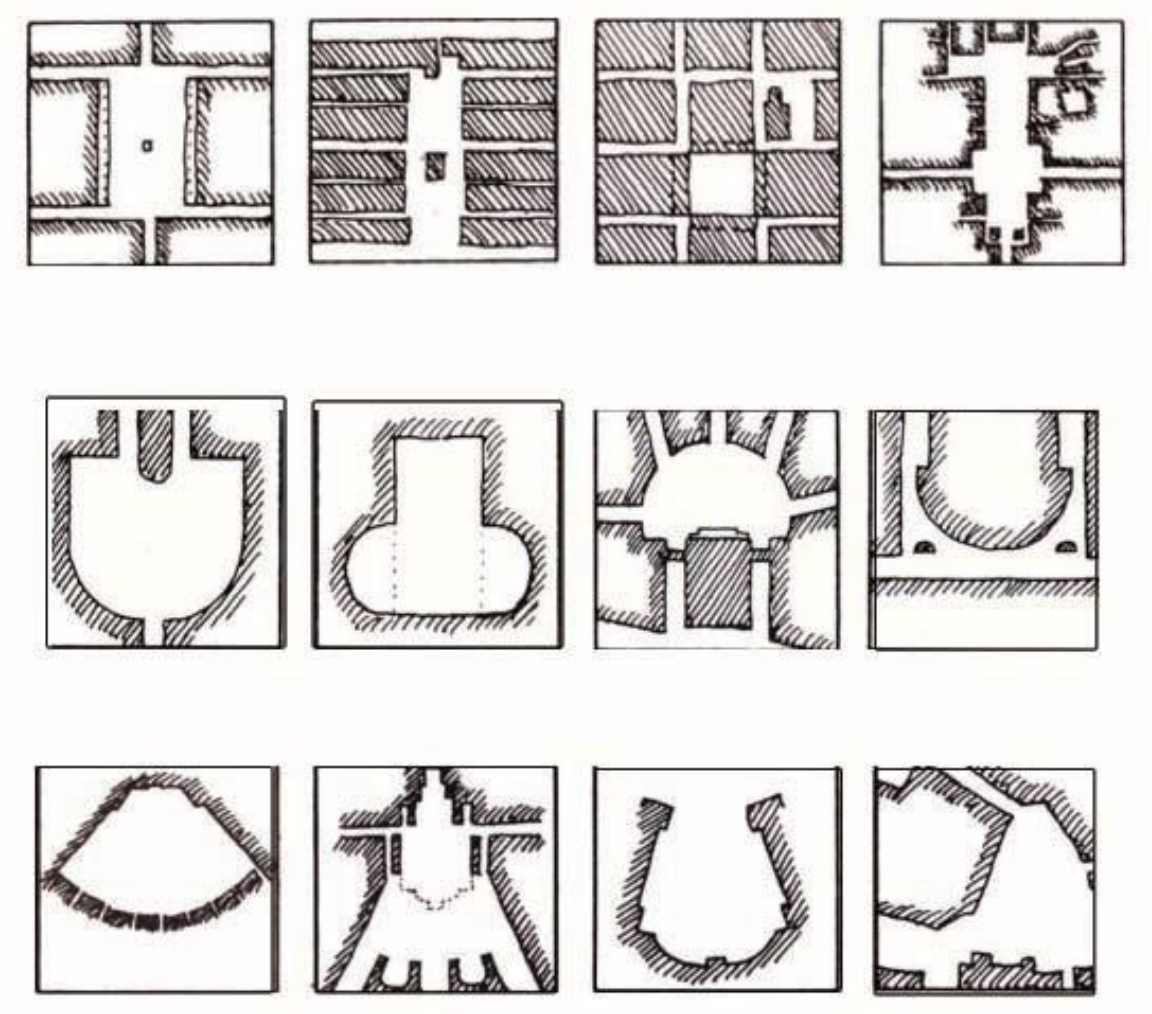


Fig. 9: Some typologies of Krier's urban spaces

### 4.3 Activities

Public squares are a catalyst to urban cohesion and individual restoration. Generally, squares are not designed for specific activities rather they are open to provide opportunities for any kind of activities; spontaneous or routine. Location and size of squares also affects the activities. For instance, larger squares near government buildings are used for protests in contrast to squares near commercial areas which are used as meeting places and for food outlets.

Also while designing, some activities can be incorporated for attracting people into the square. For example, underground parking and museums could attract people from different neighbourhoods. However, activities should never dominate the character of the urban square.

Besides, designers and planners should ensure involvement of all social and ethnic groups within a public square.

### 4.4 Landscaping

Urban squares are imagined as large flat areas with 'hard surfaces'. So the selection of pavement material is of great importance in the design stage in terms of both visual appearance and functionality. Materials (like stone, concrete, bricks etc.) can be used keeping in mind their durability and its aesthetic appeal. Surrounding architecture and streetscape should also be observed to maintain the character and coherence of urban realm. Focal areas and monuments can be given importance by changing the material or colour/texture around it. Another issues like reflections, slippery or non-slippery, drainage should also be considered while designing.

Trees are used for aesthetics, shading and visual screening in urban squares. They help in softening the otherwise strong and disturbing effects of hard surfaces. Flowering plants add dynamism to the space as they change colour over seasons. The colour green is known for its calming and relaxing effect; hence plants might be used to create places for relaxation and resting. Plants are also used as a background for monuments to emphasize its visual effects. Designers should choose local plants to avoid any damage over seasons and to reduce maintenance.

Water surfaces are landscape elements widely used in urban squares for creating aesthetic views or to create a focal point. Water can be used in variety of forms like running water, still water, fountains or combinations of these. Still water creates a more relaxing and tranquil environment while fountains and running water add movement, dynamism and vibrancy to the space. For sustainable system, recycled water and rainwater should be integrated into the design. Together with lighting, water bodies and plants creates attractive environments for users especially at night.

Fig. 10: Victoria square, Birmingham UK.

### 4.5 Site Furniture

Seats, benches, lights, bins, sign boards etc. are some of the items used as furniture in urban squares. Functionality is the only parameter to be considered while designing site furniture. Materials used must be durable in harsh climatic conditions. It should also be in coherence with the surrounding design styles. Designers should stick to minimum variety of materials possible for different items. They should be in harmony with each other in order to provide integrity to design.

Seats can be provided at regular intervals or in clusters. Also steps and walls can also be utilised as seating spaces, so can be designed accordingly. Seating allows users to spend more time in the public squares. Therefore, view of monuments and orientation of seating should be taken into account. Designers must realise that seating can act as a social catalyst when well designed. Social comfort will lead to spontaneous interactions and activities.

## 5 Sustainability

Sustainability is concerned about the quality of urban life and equity for least advantaged sections of present and future generation. This term in reference to urban realm is widely used for social, environment and economic concerns. The design of sustainable space necessitates a balance within three major elements;

i. The economics of space consumptions by users as defined by pedestrian needs.
ii. The spatial environment as dictated by relationship of movement and non-movement.
iii. The socio-cultural history of streets as a potential to discover the cultural past.

Sustainable development is the issue dealing with new methods and techniques in which using resources in terms of society, economy, and environment are optimized. There is a conceptual model consists of tripartite classification of each environment including physical, economic, and social. In this model, to reach sustainability three factors of physical, socio-cultural, and ecological are evaluated.

| **SUSTAINABILITY ASPECTS** | | |
|---|---|---|
| **Physical** | **Ecological** | **Social** |
| Size | Thermal Comfort | Identity |
| Types | Landscape | Sense of place |
| Accessibility | Wind Comfort | Comfort and Liveability |
| Street furniture | Sun Comfort | Equality |
| Beauty | | Safety and Security |

The physical and ecological aspects of sustainability are discussed in chapter 4 and 6. So we will be discussing the social aspect in depth.

Social sustainability is referred as ground of equity and democracy, which addresses fundamental needs and preserving social values and tradition. To further understand the meaning of social sustainability in urban public squares the following issues are considered.

**i. Identity**

A successful urban square is able to provide the sense identity and sense of place. According to Relph (1976), identity of square refers to *physical and ecological qualities*, *mental and emotional meanings* in which people receive from the square, and *activities and function* of square. Lynch (1960) claimed that the mental image of the square makes it memorable and vivid for the users. As long as urban public squares are human-oriented, and meant for people's needs, they are able to create strong sense of belonging in users.

**ii. Sense of place**

It refers to the relationship between people and the place. In a built environment like urban squares, the meaning and mental well-being of the place have to be taken into consideration. Carmona (2003) defined a model for sense of place representing the meaning, activity and physical setting of the place.

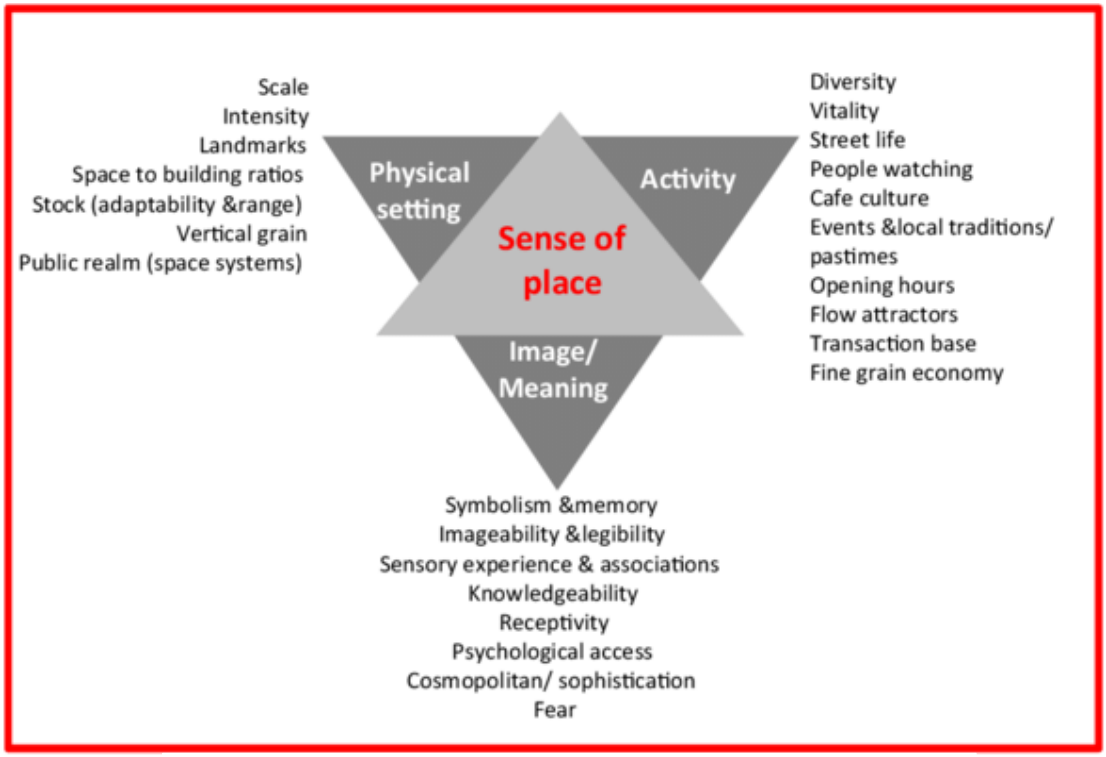



Fig. 11: Conceptual model of Sense of Place; Carmona (2003)

### iii. Comfort and Liveability

The term of *comfort* refers to adequate and comfortable setting of urban squares. Square not only has to provide facilities to protect users from climate elements such as wind, sun, rain etc. but it has to also bring visual and mental comfort. Physical and mental comfort of each square has a direct relation with liveability of the square. If a square is usable and provides physical, visual, and mental comfort for its users, then it has liveable.

### iv. Equality

As an indicator of describing sustainability and quality of life, equality puts emphasis on the advantages of urban squares. In other words, urban squares should be designed for all people from different age groups. Moreover, they should allow people to do various activities.

### v. Safety and Security

Safety and security are important prerequisites for each urban square in which encourage people to staying and lingering. Besides, safety is one of the factors influencing user satisfaction. An urban square has to be safe and secure in order to attract people from different age group such as children, women, and elderly citizens.

## 6 Microclimate

The resident's outdoor life in urban areas are affected drastically by the rapid development of cities and its contribution to the global climate change. The variations in smaller/local climate within a climate due to factors like water body, building density, landuse activities, heat islands etc. is termed as a microclimate.

'Thermal comfort' is the condition of mind that expresses satisfaction with the thermal environment and is assessed by subjective evaluation. It is the key to the public's perception and attraction of outdoor urban environment. Pedestrians are directly exposed to these microclimatic conditions and so success of urban environment depends on the thermal comfort they experience. Factors affecting thermal comfort are Air temperature, Radiant temperature, Air velocity and Humidity.

Urban geometry of open and built spaces affects microclimate across the city. Meaningful urban design by applying principles of climatology can ameliorate thermal stress and enhance resident's thermal comfort.

Some of the methods through which thermal comfort can be improved are discussed below.

i. **Cool reflective materials:** The use of excessive reflective materials which have potential to reflect the incoming solar radiations away from the urban environment. High albedo materials which had white and light colour surfaces were found to have a significant improvement effect on thermal comfort.

ii. **Water Surfaces:** They help in reducing air temperature around the water feature through evaporation. If placed properly in the wind direction, the water vapour could lower the temperature significantly of Public Square especially in hot and arid climate.

iii. **Green spaces and vegetation:** This provides cooling effect in the urban squares by the joint impact of evapotranspiration and canopy shading. Increasing green spaces in urban regions represents a considerable mitigation method in heat stress relaxation.

iv. **Building arrangements with wind movements:** Better design of urban material with air movement can reduce the effect of thermal environment, as this may control the wind direction and velocity. Constructing height, technique-flow, wind direction, urban geometry of buildings and their surroundings are factors which could induce wind speed.

The microclimatic conditions of different climate types are discussed below in the tables along with the necessary physical manifestations that could be carried out for improving upon the thermal comfort of users.

### Hot and Dry

| Objectives | Physical manifestations |
|---|---|
| **1) Resist heat gain** | |
| • Decrease exposed surface area | Orientation and shape of building |
| • Increase thermal resistance | Insulation of building envelope |
| • Increase thermal capacity (Time lag) | Massive structure |
| • Increase buffer spaces | Air locks/ lobbies/balconies/verandahs |
| • Decrease air exchange rate (ventilation during day-time) | Weather stripping and scheduling air changes |
| • Increase shading | External surfaces protected by overhangs, fins and trees |
| • Increase surface reflectivity | Pale colour, glazed china mosaic tiles etc. |

| | |
|---|---|
| **2) Promote heat loss** | |
| • Ventilation of appliances | Provide windows/ exhausts |
| • Increase air exchange rate (Ventilation during night-time) | Courtyards/ wind towers/ arrangement of openings |
| • Increase humidity levels | Trees, water ponds, evaporative cooling |

### Warm and Humid

| Objectives | Physical manifestations |
|---|---|
| **1) Resist heat gain** | |
| • Decrease exposed surface area | Orientation and shape of building |
| • Increase thermal resistance | Roof insulation and wall insulation. |
| • Increase buffer spaces | Air locks/ lobbies/balconies/verandahs |
| • Increase shading | Walls, glass surfaces protected by overhangs, fins and trees |
| • Increase surface reflectivity | Pale colour, glazed china mosaic tiles etc. |
| **2) Promote heat loss** | |
| • Ventilation of appliances | Provide windows/ exhausts |
| • Increase air exchange rate (Ventilation throughout day) | Ventilated roof construction. Courtyards, wind towers and arrangement of openings |
| • Decrease humidity levels | Dehumidifiers/ desiccant cooling |

### Moderate

| OBJECTIVES | PHYSICAL MANIFESTATIONS |
|---|---|
| **1) Resist heat gain** | |
| • Decrease exposed surface area | Orientation and shape of building |
| • Increase thermal resistance | Roof insulation and wall insulation. |
| • Increase buffer spaces | Air locks/ lobbies/balconies/verandahs |

| | |
|---|---|
| • Increase shading | Walls, glass surfaces protected by overhangs, fins and trees |
| • Increase surface reflectivity | Pale colour, glazed china mosaic tiles etc. |
| **2) Promote heat loss** | |
| • Ventilation of appliances | Provide windows/ exhausts |
| • Increase air exchange rate (Ventilation throughout day) | Ventilated roof construction. Courtyards, wind towers and arrangement of openings |
| • Decrease humidity levels | Dehumidifiers/ desiccant cooling |

### Cold (cloudy and sunny)

| OBJECTIVES | PHYSICAL MANIFESTATIONS |
|---|---|
| **1) Resist heat loss** | |
| • Decrease exposed surface area | Orientation and shape of building. Use of trees as wind barriers |
| • Increase thermal resistance | Roof insulation, wall insulation and double glazing |
| • Increase thermal capacity (Time lag) | Thicker walls |
| • Increase buffer spaces | Air locks/ lobbies/balconies/verandahs |
| • Decrease air exchange rate (ventilation during day-time) | Weather stripping and scheduling air changes |
| • Increase shading | External surfaces protected by overhangs, fins and trees |
| • Increase surface reflectivity | Pale colour, glazed china mosaic tiles etc. |
| **2) Promote heat gain** | |
| • Ventilation of appliances | Provide windows/ exhausts |
| • Increase air exchange rate (Ventilation during night-time) | Courtyards/ wind towers/ arrangement of Openings |
| • Increase humidity levels | Trees, water ponds, evaporative cooling |

### Composite

| OBJECTIVES | PHYSICAL MANIFESTATIONS |
|---|---|
| **1) Resist heat gain in summer and Resist heat loss in winter** | |
| • Decrease exposed surface area | Orientation and shape of building. Use of trees as wind barriers |
| • Increase thermal resistance | Roof insulation and wall insulation |
| • Increase thermal capacity (Time lag) | Thicker walls |
| • Increase buffer spaces | Air locks/ Balconies |
| • Decrease air exchange rate | Weather stripping |
| • Increase shading | Walls, glass surfaces protected by overhangs, fins and trees |
| • Increase surface reflectivity | Pale colour, glazed china mosaic tiles, etc. |
| **2) Promote heat loss in summer/ monsoon** | |
| • Ventilation of appliances | Provide exhausts |
| • Increase air exchange rate (Ventilation) | Courtyards/ wind towers/ arrangement of openings |
| • Increase humidity levels in dry summer | Trees and water ponds for evaporative cooling |
| • Decrease humidity in monsoon | Dehumidifiers/ desiccant cooling |

## 7 Tactical Urbanism

Tactical urbanism' pretends to promote short-term actions, causing long-term changes in the city. In the report published for the opening of the Tactical Urbanism Salon of the 28th April 2012, Mike Lydon describes the intention of assembling, under a same term, a "*growing number of short-term often self-funded efforts that were demonstrably leading to longer change*", such as 'guerilla urbanism', 'pop-up urbanism', 'city repair', 'DIY urbanism'.

Generally 'tactical interventions' are low-cost initiatives with an illegal character. 'Tactical urbanism' criticises the large-scale projects and transformations still influenced by modernistic planning viewpoints. 'Tactical interventions' can occur for instance on parking lots, cul-de-sacs, vacant land or

underrated spaces in cities, always with a focus on the human scale of the intervention. They emphasise a deliberate approach to 'city-making', established on five principles:

i. a deliberate and incremental approach to activate change.
ii. the use of local ideas to respond to local challenges
iii. a short-term commitment and realistic stake
iv. a low-risk approach
v. the focus on the development of social capital, creativity and organisational capacity for institutions

'Tactical urbanism' is thus a term used with openness and flexibility: practitioners keep building on with the latest innovations and urban experiments, which are carried out by professionals of other disciplines than urban planning or proactive citizens having a say in the quality of urban life in their neighbourhood.

### 7.1 Times Square New York: From Pop-Up to Permanent.

The name Time Square is borrowed after the headquarter building of 'The Times' in 1905. Once a busy intersection with traffic clogging the area, now is one of the most recognised urban square in the world. The transformation began with small local interventions of cafes with outdoor sitting spaces, craftsmen selling wares out of shipping containers etc. These attracted a great number of visitors into the square which encouraged building of art theatres and opera house in the close proximity.

There was a new understanding that the urban planning for public places doesn't have to revolve around the capital intensive projects. Small changes, sometimes built around minimum design and extensive programming, can spur momentum for larger, more permanent ones.

In New York, what started as some cheesy chairs and a few painted zones designed to exclude cars around Times Square and Herald Square has mushroomed into an effort that wifl eventually run about three miles, from Central Park down to Greenwich Village. The zones now include tables, umbrellas, planters, and benches. They're packed, even in wintertime.

Design Process

The redevelopment of Times Square was originally an experiment led by New York City Department of Transportation Commissioner Janette Sadik-Kahn in May 2009. It was first titled 'Green light for Midtown', with the original aim to improve pedestrian safety and traffic flow. The original idea was to close the road to vehicles until the end of the year, and then give the citizens the chance to vote on whether it should remain closed.

Following the initial closure the public began to understand the great value of reclaiming this space for their city. When it came time to vote on whether or not the street stayed car-free, they voted unanimously for it to stay.

The site has undergone many design iterations, from the very temporary, through to a final permanent design.

**Stage 1 :** When the road was first closed off, inexpensive multi-coloured plastic lawn chairs were put out. This stage lasted a few months.

**Stage 2**: A temporary art installation entitled 'Cool Water, Hot Island', was painted as a mural over the road, by Molly Dilworth.

**Stage 3** : Following these temporary trials, a final design competition was undertaken, which was won by Snøhetta.

**Stage 4** : The redesign is being undertaken in phases; phase one was opened at the end of 2012, when the curbs were removed to create an even surface for pedestrians, with enhanced paving and new benches.

**Stage 5**: The last phase was open in 2015.

There are many statistics that support the success of the redevelopment which has well exceeded initial ambitions. Business revenues have risen by 71 %, which has confounded many of the surrounding businesses owners who were initially sceptical and resistant to the changes.

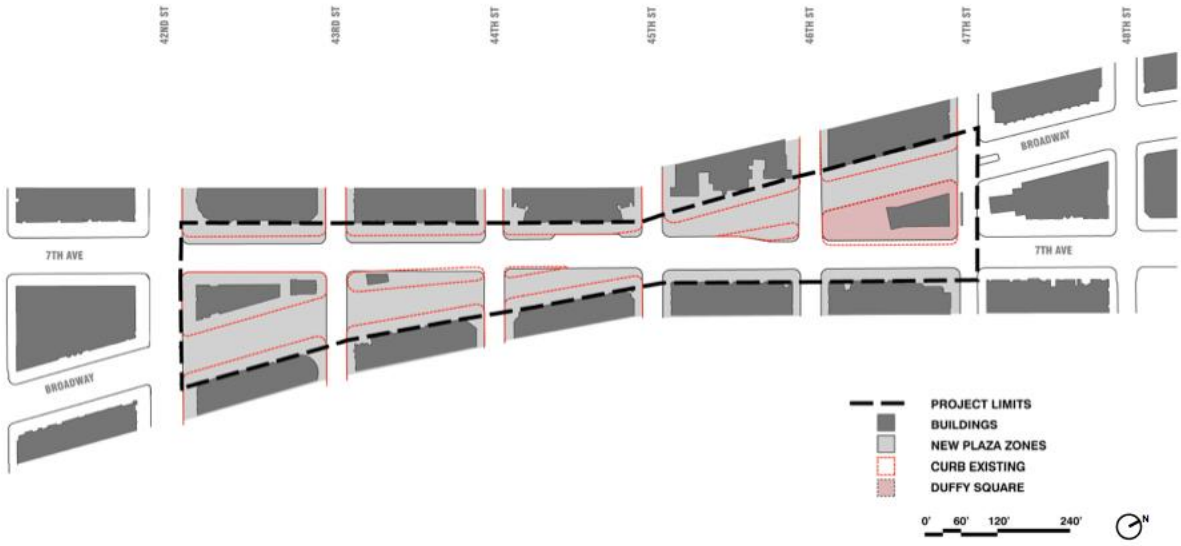



Fig. 12: Plan of Times Square, New York

The project has led to improved connectivity in following manner:

1. **A thoroughfare.** Broadway has always been a main pedestrian thoroughfare for Midtown, however increasing vehicle traffic has compromised pedestrian flows. Now pedestrians have the space to enjoy this infamous city centre street.
2. **Connections to commercial outlets.** Pedestrians now have more space to move through Broadway, enhancing the permeability with storefronts and entrances. This has helped to increase economic viability across the area.
3. **Better connection to the Metro station.** The project has created much more pedestrian space around the principal Metro station located at the south end of Broadway, improving access and safety in the area.


Fig. 13: Times Square, New York

4. **Creating another main public space for Manhattan.** The creation of this new public space helps to develop the overall network of public spaces within Manhattan. This more evenly distributes the places within the city that are for people.

### 7.2 Ramses Square: Greater Cairo Region, Egypt

Ramses Square zone is the urban area which interacts with user activities and transportation nodes with tactical urbanism activities like that of street vendors. In this case, the urban area authority had passed an order to remove all the local street vendors from the squares. So the case study deals with two axes: Before implementation of the order and after its implementation.

Before implementation, the figure shows the high density of street vendors all over the square areas, under bridge, streets, open area in front of mosque etc. There are variety of types and volumes and are largely scaled covering mostly the whole square. One can clearly identify the needs of the people in continuum of their daily routine and how these local vendors are fulfilling the same. The vendors include food, drinks, clothes, shoes, books, toys, accessories, cleaning shoes etc.

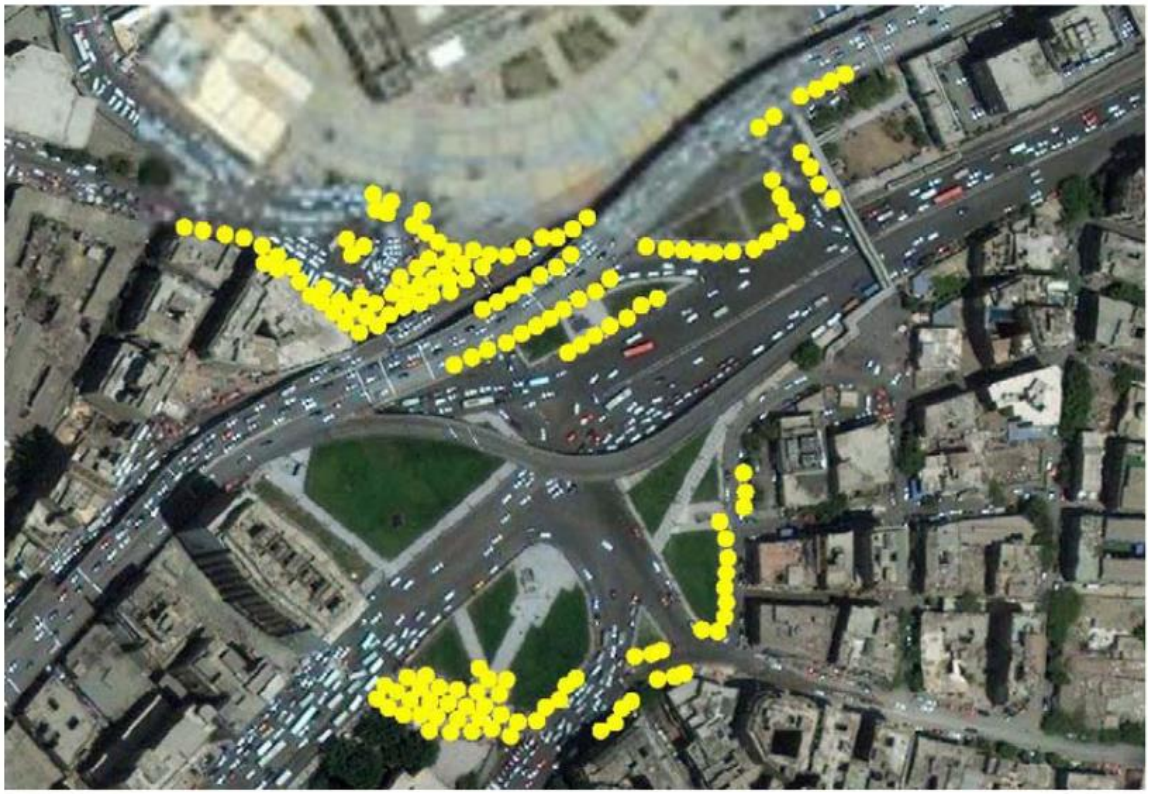


Fig. 14: Ramses Square map over laid with street vendors location

Fig. 15: Ramses Square street vendors

After elimination of street vendors by the authority, initially it saw low density of street vendors. But after a period of over a year, the people and passing users of the square returned in helping by their daily needs in re-appearing of tactical urbanism phenomena. So returning of these special activities was indeed against the daily spontaneous needs of the users. So this leads us to search for another way of treatment for this phenomena by well-planned and designed allocation for these vendors.

Fig. 16: Authorities eliminating street vendors

Fig. 17: Street vendors re-emerging at Ramses Square

So the solution to the chaos created by tactical urbanism was identified as the regularisation of these activities in form of allocated space for street vendors in form of light weight kiosks and containers.

## 8 Summary

Throughout this report, we have discussed about the importance of urban spaces (squares) within the city and how it plays a significant role in the sociability of the city. The urban squares has always been the central focal point of the city throughout the history. We have discussed various ages like Greek, Roman, Ottoman etc. and have seen how the function of urban squares have changed. We now know the squares can be designed for variety of functions ranging from recreational to religious and also political.

Also the urban squares can be categorised based on their form, size, enclosure, dependency, cluster etc. The overall form and shape of urban square often depends upon its function. Like the square can be the focal point itself or it might be acting as a foreground for some monument. While designing the urban spaces one must also consider the vernacular architecture and urban fabric of the city so it becomes the part of the whole urban space hierarchy. Small details like street furniture, pavement material, lighting etc. and its usage in design can bring out the space and can make it more lively and vibrant.

The urban squares often attract a great number of people, but it is its design which will be the deciding factor for people to stay longer in the square or to abandon it early. So thermal comfort of visitors is of paramount importance.

All the areas under public realm are affected by tactical urbanism phenomena. It is the instantaneous popping up of activities which are desired by users passing through it. It may be not strictly speaking legal but it adds to the life and vibrancy of urban square.

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