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## Urban Streets: Remaking Human-Based Places

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### ABSTRACT

Over the past few decades, due to the emerging compactness of cities considering the increase in population, and consequently the increasing demand for fast mobility, many streets have lost their human dimension. They have been transformed into fast roads, giving priority to vehicles, and reducing the rights of pedestrians. This transformation has affected streets in terms of planning, design, function, and scale. The paper argues that remaking cities' urban streets as human-based places seeks to achieve a better balance between urbanism, people, nature, and culture, thereby improving their urban life in general. Through a literature review, this article chronologically investigates the principles, concepts, characteristics, and considerations of human-based places. Moving from theory to practice, the paper adopts a critical analysis method to measure the success of selected precedents that manifest urban streets as human-based places. And finally, through a critical discussion, it proposes a theoretical framework to maintain or regain the human dimension in urban streets.

Through the developed theoretical framework, the paper reveals that a multidimensional intervention approach, including tangible and intangible design considerations should be adopted to develop human-based places.

### KEYWORDS

Urban streets, Human-based places, Pedestrians, Urban life

### الشوارع الحضرية: إعادة تشكيل الأماكن الإنسانية

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### ملخص البحث

على مدار العقود القليلة الماضية، نظرًا لاكتظاظ المدن في ضوء الزيادة السكانية والطلب المتزايد على التنقل السريع، فقدت العديد من الشوارع بُعدها البشري. فقد تم تحويلها إلى طرق سريعة، معطية الأولوية للمركبات، مما ترتب عليه تقليل حقوق المشاة. أثر هذا التحول على الشوارع من حيث التخطيط، أو التصميم أو الوظيفة أو الحجم. تجادل الورقة بأن إعادة تشكيل الشوارع الحضرية في المدن كأماكن قائمة على متطلبات الإنسان يسعى إلى تحقيق توازن أفضل بين التمدن والناس والطبيعة والثقافة؛ وبالتالي تحسين حياتهم الحضرية بشكل عام. من خلال مراجعة الأدبيات بترتيب زمني، تبحث المقالة في مبادئ، أفكار، خصائص واعتبارات الأماكن البشرية. وبالانتقال من النظرية إلى التطبيق، تعتمد الورقة طريقة تحليل نقدي لقياس نجاح مشاريع مختارة تتبنى تصميم الشوارع الحضرية كأماكن تعتمد على إحتياجات ومتطلبات الإنسان. وأخيرًا، من خلال مناقشة نقدية، يقترح البحث إطارًا نظريًا للحفاظ على/ أو استعادة البعد الإنساني في الشوارع الحضرية. من خلال الإطار النظري المطور الذي تخلص إليه الورقة البحثية، ينكشف أنه يجب اعتماد نهج تدخل متعدد الأبعاد، بما في ذلك اعتبارات التصميم الملموسة وغير الملموسة لتطوير أماكن إنسانية.

### الكلمات الدالة

الشوارع الحضرية، الأماكن الإنسانية، المشاة، الحياة الحضرية.

## INTRODUCTION

Urban streets are not only connecting arteries between places for diverse kinds of mobility, but they are also places, where people can move, interact, assemble, and socialize by different means. Urban streets are one of the main cities' typologies of public places. They have a main role in connecting people with each other, and more importantly, with their city. In this context, Jacobs (1961) claims that "Streets and their sidewalks-the main public places of a city-are its most vital organs."

Many scholars and practitioners have created, discussed, and debated various theories of designing and making places. Recently, the concept of designing places for people has been promoted by many scholars in response to increased urbanism and the dominance of cars over pedestrian rights. Following that concept, Nassar (2021) promoted the idea of humanizing open spaces of Taibah University through walkability, as a tool for enhancing students' social life. In this context, several scholars have seen public spaces as humanized living spaces, and not only places for satisfying people's basic/survival needs (Hu et al., 2021). In line with that idea, Almahmood et al. (2022) promoted that re-humanizing public spaces can be done through sociocultural activities.

### 1. HUMAN-BASED URBANISM

Human-based urbanism is a concept that has no agreed-upon definition in the literature of sociology or urban planning. Starting from the writings of Jane Jacob in the 1960s and 1970s until reaching contemporary concepts established by many theorists and practitioners. Yet, there is an agreement that the humanitarian city is based on the importance of providing large areas that are easily accessible to all segments of society. In this context, human-based design is known as "People-centred Design" or "User-centred Design" that is often connected with improvements in the built environment, in a way that creates sensory, visual, and natural comfort for the residents who live in the city, region, or neighbourhood (Zhang & Dong, 2009).

It seeks to provide human needs through an appropriate and attractive social environment by directing planning to scale for human beings, rather than planning based on considerations for vehicle movement. It also aims to deepen the human dimensions of the urban, environmental, social, economic, and cultural aspects of planning and design. In that regard, Jacobs (1961) points out that "The urban needs of urban dwellers must be respected, and that the city that people build for their lives and not to contain buildings."

The importance of human-based urbanism lies in providing a safe urban environment that stimulates the practice of a diverse range of activities, as well as improving the urban landscape of its place and raising the standard of living. As stated by Jacobs, "...this is something everyone knows: A well-used city street is apt to be a safe street..." (Jacobs, 1961). Human-based streets, as a main typology of public places, are streets with certain qualities to satisfy human needs, such as being safe, accessible, of human scale, livable, and sociable, among other qualities (Almahmood et al., 2022).

### 2. URBAN STREETS

Due to their function as urban connectors between various destinations, streets are the most accessible public places in cities. Urban streets are classified into different types, such as pedestrian-only streets, laneways, alleys, commercial shared streets, residential shared streets, transit streets, large or grand streets, etc. As per their capacity, location,

and function, among other aspects, urban streets have a hierarchy that starts from the highest grade (major arterials) to (collectors), reaching the lowest grade (local roads). (Global Designing Cities Initiative, 2016)

Urban streets were studied in previous scholarly work from a variety of perspectives, such as their use, and their potential functional opportunities, (Shehayeb, 1995), or street functions and the users' needs (Jones et al., 2008). Other scholars have discussed the urban streets from a spatial point of view, for example, Boeing (2019) investigated the urban spatial order of the streets' network and their orientation, configuration, and entropy. Among different types of public spaces, Carmona (2019) debated the principles of street design and planning.

This research focuses on urban streets that consider the human aspect as a priority in their planning and design.

### **3. CONTEMPORARY ISSUES OF URBAN STREETS**

Nowadays, many urban streets are dominated by vehicles and do not prioritize pedestrians as one of their main users. Consequently, pedestrians are mostly suffering from the denial of their right to experience street life. Fred Kent stated that "The resulting decline of street life" affects the social and economic life of communities (Kent et al., 2020). Many local or collector streets have turned into highways, neglecting the human aspect of those streets. In this context, the research attempts to highlight many of the current issues facing urban streets as follows:

#### **3.1 Do We Have Safe and Enjoyable Walkability in Our Streets?**

Although of their function as shopping streets for people as their main users, some commercial streets are neither designed to consider the human scale, nor to accommodate pedestrians' needs. Furthermore, they tend to have unsafe complex circulation for people who want to move from one side to the other side. Why are many urban streets becoming unsafe? Is it because of their planning and design, or because of the conflicting user behaviour that is not accommodated within the street? There is indeed a danger in using and crossing some streets.

As per the pedestrian safety trends published by the Governors Highway Safety Association (GHSA) between 2010 and 2019, "Pedestrian deaths have risen by 46% over the past decades" for those who were killed while crossing local roads. This raises the question of safety in urban streets that should accommodate various types of spatial human activities.

#### **3.2 Do We Have Streets That Are Accessible to All?**

Equity in using public spaces is a human right. Some streets do not accommodate special categories of users, such as wheelchair users, blinds, cyclists, or baby strollers. In some streets, sidewalks with their leading connectors don't have ramps that enable such mobility. Hence, unsafe routes for such mobility are being mixed with vehicle lanes in the absence of the needed segregation between the two types of movements. Furthermore, inefficient design or insufficient width for sidewalks doesn't support easy movement for all categories of street users.

#### **3.3 Do We Have Vital Streets?**

Looking at the current situation of urban streets in many countries, another question arises regarding the loss of the social aspect and traditional street life. The sidewalks of

urban streets indicate their vitality and liveability. Inefficient planning of sidewalks not only hinders walkability, which is the basic mobility aspect for pedestrians, but also doesn't support their needed functionality, comfort, and above all, sociability. It is considered a safety hazard on the street. From this perspective, Nathalie Thirlwall claims that “..The vitality of a city, especially in its core, relies on the ease of navigation of its inhabitants..” (Thirlwall, 2014).

#### **4. PRINCIPLES OF HUMAN-BASED URBAN STREETS**

There are numerous scholars who have discussed, proposed, and identified the principles of human-based places/streets. In general, those streets are the ones that are connected to people and attractive to them as they are not only fulfilling their needs but also providing potential venues for them to experience various activities, (Global Designing Cities Initiative, 2016). Between theory and practice, many principles were identified for urban streets (as part of the public realm) to be responsive to human needs. Maslow's hierarchy of needs has discussed the basic needs of people in public spaces in his book “Motivation and Personality” (Maslow, 1954).



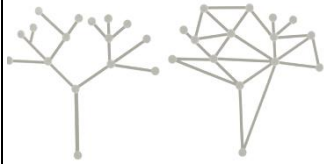

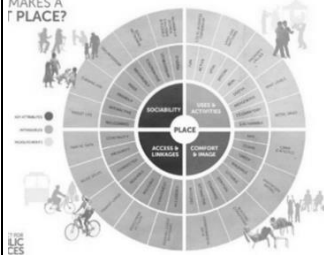
In the 1960s, Jane Jacobs advocated a prime initiative in city design from a human perspective. She promoted new principles (during that time) in city design, such as vitality, diversity of use, and accessibility, among other aspects. (Jacobs, 1961). Building on the principles of city design introduced by Jacobs, at the beginning of this century, many scholars such as Carmona (2019), Kent (2020), and Gehl (2010) discussed the human aspects of streets as a main typology of cities' public places. Concepts such as “Streets as places”, “Streets as people places”, or “Cities for People” were widely discussed and implemented in many successful projects that considered comfort, safety, liveability, street life experience, and placemaking principles in urban streets to (re)make them as human-based places.

Recently, many planning organizations, such as CityFix, have identified 10 principles for connecting people with the streets. The 10 principles cover many functional and physical aspects of urban streets that assure their vitality, such as following a human scale in planning and designing streets, diversity of street use, and active facades. The principles also covered non-physical aspects of urban streets, such as considering local identity, stimulating the social dimension, and stimulating the local economy (Pacheco, 2017).

New ideas for planning and designing streets from a human perspective were proposed, such as “Complete Streets” and “Active Design”. For example, Sharpin et al. (2017), as well as Lenker et al. (2016), promoted the idea of “Complete Street” which aims to design safe and sustainable streets. Typically, the new idea gives more priority to pedestrians, cyclists, and motorists through a comprehensive street design, such as active streetscape to enhance people's experiences, efficient street furniture, surface types, and green infrastructure, considering bicycle facilities, among other elements that assure universal accessibility to all users.

Table (1) summarizes the main principles, concepts, and considerations proposed by various scholars and practitioners throughout the past decades to (re)make streets human-based places. It starts from the human basic needs in any public space that were settled in the mid-nineteenth century till the new concepts of (re)developing and (re)vitalizing public places/streets for a better connection with people.

Table (1) A chronological review of principles, concepts, and considerations of human-based streets

Period	Proponent	Concepts & Principles	Application/Models
1954	Abraham Maslow  “Hierarchy of needs”	Maslow's hierarchy of needs is “...a theory of motivation which states that five categories of human needs dictate an individual's behavior..” Maslow’s human needs were categorized into: <ul style="list-style-type: none"> <li>Physiological needs,</li> <li>Safety needs,</li> <li>Love and belonging needs,</li> <li>Esteem needs,</li> <li>Self-actualization needs.</li> </ul>	
1961	Jane Jacobs  “Community-based approach to city building”	“...Streets and their sidewalks-the main public places of a city-are its most vital organs.” “The more successfully a city mingles everyday diversity of uses and users in its everyday streets..” “...frequent streets and short blocks are valuable because of the fabric of intricate cross-use that they permit among the users of a city neighborhood.” Jacob’s main principles of Communities are: <ul style="list-style-type: none"> <li>Vitality,</li> <li>Accessibility,</li> <li>Diversity of use,</li> <li>Cross-use.</li> </ul>	
1965	Christopher Alexander  “The city is not a tree”	The separation between different types of movements represented in the <b>segregation between pedestrians and vehicles</b> . The idea was simulated in “tree-like” diagrams. On the other hand, he also argued that the <b>overlap between different types of movements</b> is needed, which was represented in a “semi-lattice” shape.	 <small>Alexander's' tree and semi-lattice</small>
2003	Matthew Carmona  “Streets as Places”	Street shouldn’t be based on traffic considerations. <b>Considering the demands of all street users</b> , such as pedestrians of all ages and abilities, cyclists, public transportation, vehicles, and riders. Carmona called for “From arterial roads to streets and boulevards” Carmona main principles and considerations for urban streets are: <ul style="list-style-type: none"> <li>Shared spaces</li> <li>Ultimate accessibility</li> <li>Users’ needs and comfort</li> </ul>	
2005	Fred Kent  “Streets are People Places”	“If you plan cities for cars and traffic, you get cars and traffic. If you <b>plan for people and places</b> , you get people and places.” “...streets could become <b>destinations</b> worth visiting, not <b>thruways to and from the workplace..</b> ” Kent’s considerations for human urban streets are: <ul style="list-style-type: none"> <li>Designing for people</li> <li>Allowing people to connect</li> <li>Comfort</li> <li>Safety</li> <li>Revive social economy</li> <li>Placemaking principles</li> </ul>	

<p><b>2010</b></p>	<p>Jan Gehl, <i>“Cities for People”</i></p>	<p><i>“.. to reinforce pedestrianism as an integrated city policy to develop <b>lively, safe, sustainable and healthy</b> cities..”</i> <i>“.. the <b>human dimension</b> has been an overlooked and haphazardly addressed urban planning topic..”</i> Gehl set following priorities for designing places for people:</p> <ul style="list-style-type: none"> <li>▪ Human Scale,</li> <li>▪ Safety,</li> <li>▪ Livability,</li> <li>▪ Sustainability,</li> <li>▪ Equitable access.</li> </ul>	
<p><b>2013</b></p>	<p>Charles Montgomery <i>“Happy City”</i></p>	<p><i>Has proposed a “..basic recipe for urban happiness..” for the city at large, such as build cities that <b>offer fair spaces and mobility</b> among other aspects.</i> Among his recommendations for a happy city, he promotes that the city streets should be/should have:</p> <ul style="list-style-type: none"> <li>▪ Safe</li> <li>▪ Venues for social interaction</li> <li>▪ Active facades</li> <li>▪ Equity</li> </ul>	
<p><b>2016</b></p>	<p>Joel Kotkin <i>“The Human City”</i></p>	<p>As part of his criticism to cities we are currently living in, Kotkin called for implementing the following principles among other principles) to the City at large; in order to be more human:</p> <ul style="list-style-type: none"> <li>▪ Human scale</li> <li>▪ Livability</li> <li>▪ Low density</li> </ul>	
<p><b>2016</b></p>	<p>Hans Karszenberg &amp; Jeroen Laven <i>“The City at Eye Level”</i></p>	<p><i>Reviving the street plinth to retrieve the urban experience and urban warmth.</i> They called for reviving:</p> <ul style="list-style-type: none"> <li>▪ Urban experience</li> <li>▪ Social interaction</li> <li>▪ Culture interaction</li> </ul>	
<p><b>2017</b></p>	<p>CityFix <i>“Connecting People and the Streets”</i></p>	<p>Many principles for human-based streets were suggested as follows:</p> <ul style="list-style-type: none"> <li>▪ Human scale in planning and designing streets,</li> <li>▪ Diversity of street uses,</li> <li>▪ Active facades,</li> <li>▪ Considering local identity,</li> <li>▪ Stimulate the social dimension and urban vitality.</li> <li>▪ Social participation,</li> <li>▪ Complete streets</li> <li>▪ Stimulate the local economy</li> </ul>	

Source: Developed by the author based on sources included in the table.

In addition to various design principles that prioritize humans’ needs in the public realm, the following are some examples of strategies that promote and focus on the human dimension in the public realm, or specifically in streets.

- **Active design** that focuses on the experience of the street. “Active Design” concept that focuses on the human experience on streets. As per the Global Designing Cities Initiative, “A street is the basic unit of urban space through which people experience a city.” Department of City Planning, New York. (2013).
- **The Complete Street** concept combines the comprehensive efficiency of streets by designing streets that serve all users. The concept considers walking, people with disabilities, and bicycling as equal vehicles in an integrated way (Burlacu, 2012).

The complete street concept is an approach to designing livable streets that considers the human scale, offers mixed-use street development, and conserves landscape, among other aspects. It often leads to safe, healthy, and inclusive environments.

- **The Flexible /Co-use** approach of street design, which allows maximum adaptation of the street to fit different uses at different times or events. Often, it connects different zones of the street, such as sidewalk paths, bike lanes, and vehicles to be interchangeable, such as parking spaces, parklets, and transit stops (Global Designing Cities Initiative, 2016).

As a conclusion to the (re)creation of human-based places/streets’ principles, concepts, and considerations by various scholars, the idea of designing human-based urban streets is a well-established concept that was discussed, debated, and promoted by several scholars and practitioners from different perspectives. Repetitive and similar tangible and intangible qualities of human-based urban streets that are integrated into most of the above principles and concepts are concluded in Fig. 1.



Fig. (1) Tangible and Intangible Qualities of Human-based Urban Streets  
By the author

## 5. MEASURING THE SUCCESS OF HUMANIZING URBAN STREETS

Several projects with different scales and different design objectives were done around the world to turn some urban streets into human-based ones. According to the nature of each urban street context, background, and problems, a variety of development strategies and tools have been followed for upgrading the streets and making them more human.

As shown in Table 2, several precedents were selected based on certain criteria to cover a variety of intervention strategies for remaking urban streets as human-based places. The precedents were selected to cover:

- Variations of street problems and backgrounds,
- Variations of geographic locations that reflect a variety of socio-cultural needs,
- Variation of street grades and functions,
- Variations of street transformation: key factors of intervention



Table (2) Criteria of precedents' selection

<i>Precedent</i>	<i>Location</i>	<i>Grade</i>	<i>Problems</i>	<i>Type/Function</i>
<i>Bahnhofstrasse</i>	Germany	Connector street	Congested Not pedestrian friendly	Commercial, Mixed uses
<i>Champs-Elysées</i>	France	Arterial avenue	Noise Air pollution	Commercial, Entertainment, Mixed uses
<i>Times Square</i>	USA	An intersection of two arterial streets	Congested, unsafe hazard to pedestrians	Entertainment, Commercial, Business
<i>Jeddah Colorwalk</i>	Saudi Arabia	Pedestrian walkway	Functional zones No identity	Pedestrian and cycling

Source: the author

### 5.1 Bahnhofstrasse, Esslingen, Germany

“Bahnhofstrasse” or the railway station street of Esslingen City in southern Germany is an old street from the 19<sup>th</sup> century. The shopping street connects the railway station to the city center.

#### 5.1.1 Background and problem

During the past decades, the street was dominated by vehicles, which caused a lot of traffic congestion. Hence, the original architectural character and the visual quality of the historic street were affected. See Fig. 2. Therefore, shopkeepers and house owners of the street called for an atmospheric enhancement to the street. (Stadtbaumatelier, n.d.).

#### 5.1.2 Transformation

In 1997, the “Bahnhofstrasse” was turned into a pedestrian street that extends for 394 meters with a unique spatial experience. 15 multipurpose gate-like beams were added along the street; not only to enhance its visual character but also to act as celebratory announcement features for all city events and activities. (Stadtbaumatelier, n.d.).

It also acts as a unique lighting feature that gives a special identity to the street. See Fig. 3. After the enhancement of the street, the revenue of the shops increased as the street became one of the main destinations in Esslingen City.



Fig. (2) The Bahnhofstrasse before the enhancement project, where cars are dominating its use, with a poor architectural character.



Fig. (3) Bahnhofstrasse human-based visual experience that causes the vitality of the street.

Source of Figures 2 & 3: (Stadtbaumatelier, n.d.)

### 5.1.3 Measuring the Bahnhofstrasse human-based qualities

Table 3 represents the analysis of the human-based qualities of the Bahnhofstrasse. It summarizes its existence, whether they are tangible or intangible, and through using which tool.

Table (3) Analysis of human-based qualities in the Bahnhofstrasse

Tangible Qualities					Intangible Qualities						
Safety	Comfort		Scale	Accessibility	Zoning	Vitality	Walkability	Livability	Sociability	Inclusive	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Traffic limitations	Enhancing Lighting	Street Furniture	Planting	Enclosure through repetitive arches	Maximizing pedestrianization	Clear zones	Creating more street functions / complete streets	Vehicle limitations in terms of number and speed; to	Integration of socio-spatial needs.	More social activities were	Street divers use it in an integrated way

Source: the author

## 5.2 Champs-Élysées “Garden” Project, Paris, France

Avenue des Champs-Élysées is in the heart of Paris, France. It links Concorde Square with Charles de Gaulle Square, with a length of 1900 meters and a width of 70 meters.

### 5.2.1 Background and problem

Currently, as shown in Fig. 4, the street has a good balance between the pedestrians’ movement on safe and wide sidewalks that is separated from the vehicles’ movement in two ways with a greenery buffer zone strip between the two types of movements. Yet, noise and air pollution have driven the city of Paris to approve a project that aims to minimize the number of vehicles passing through the street and maximize the area dedicated to human-based activities (Baldwin, 2021) (Willshare, 2021).

### 5.2.2 Transformation

The street will go through a development plan for what is called the “Garden” project, which focuses on using nature for active use of the street, including mobility. See Fig. 5. Furthermore, as shown in Fig. 6a&b, some lanes that are currently dedicated to cars to be transformed into a garden corridor adding more human-based activities. In addition to extending the width of the sidewalks, added greenery-lined restaurants and cafes, more trees, and other added functions and facilities for pedestrians (PCA-STREAM, n.d.).



Fig. (4) Up: The current status of Avenue Champs-Élysées, Paris 2020



Fig. (5) Up: The planned upgrading project for Avenue Champs-Élysées, Paris 2030.



Fig. (06a&b) Right: An illustration of the greenery-lined zone that will host a variety of human-based activities in Avenue Champs-Élysées.

Source of Figures 4, 5 & 6: (PCA- STREAM, n.d.)



5.2.3 Measuring the Champs-Élysées “Garden” Project human-based qualities  
 Table 4 highlights the human-based qualities of the Champs-Élysées “Garden” Project. While limiting vehicles' speed, adding more public amenities, planting, wide pedestrian strips, and planning clear usage zones are considered tangible qualities, intangible qualities exist, such as active social interaction.

Table (4) Analysis of human-based qualities in the Champs-Élysées “Garden” Project

Tangible Qualities					Intangible Qualities					
Safety	Comfort		Scale	Accessibility	Zoning	Vitality	Walkability	Livability	Sociability	Inclusive
✓	✓		✓	✓	✓	✓	✓	✓	✓	✓
Vehicles speed limitations	More seating areas and public amenities	planting	Larger pedestrian strips.	Maximizing pedestrianization	Clear zones	Applying the garden concept to the streets.	Vehicle limitations	Integration of socio-spatial needs.	More social activities were added.	Active use of street

Source: the author

### 5.3 Times Square, NY, USA

Times Square is located in Manhattan, in the heart of New York City, USA. It is an intersection of two arterial streets.

#### 5.3.1 Background and Problem

Before the reconstruction of the square, it used to be an unsafe hazard to pedestrians and car traffic. as it had unsafe, narrow, overcrowded sidewalks that forced pedestrians to spill into the roadways. See Fig. 7.

### 5.3.2 Transformation

Between 2010 – 2017, an upgrade project by Snøhetta architects took place in the square and the linked streets to make them safer and more vibrant by doubling the pedestrians’ area, see Fig. 8. Therefore, safety, social interaction, relaxation, and comfort of pedestrians have been considered within the new design of the square. “...pedestrian injuries have decreased by 40%, vehicular accidents have decreased by 15%, and overall crime in the area decreased 20%...” (Snøhetta, n.d.), (Times Square, n.d.).



Fig. (7) Times Square before the development project as an intersection between two arterial roads causing hazards to pedestrians.



Fig. (8) The development project in 2017 increased the pedestrianization in the street by 50%, allowing more safe space for human activities.

Source: Diagrammatic collage using Google Earth by the author

### 5.3.3 Measuring the Times Square human-based qualities

Table 5 summarizes the tangible and intangible human-based qualities of Times Square.

Table (5) Analysis of human-based qualities in the Times Square

Tangible Qualities					Intangible Qualities					
Safety		Comfort	Scale	Accessibility	Zoning	Vitality	Walkability	Livability	Sociability	Inclusive
Increasing walkability	Less vehicle accidents	Improving the health and well-being of users	Wider walkways	Less vehicles and more pedestrianization	Clear zones	A stage of public life and social events.	Increased.	Integration of socio-spatial needs	A planned calendar of social and cultural events.	Street divers use in an integrated way
	√	√	√	√	√	√	√	√	√	√

Source: the author

### 5.4 Jeddah Colorwalk, Saudi Arabia

Jeddah Colorwalk is a placemaking community engagement initiative that has several execution phases. The Colorwalk is located near and parallel to the Jeddah waterfront as a median between two automobile roads. The project used a tactical urbanism strategy to create a powerful, energetic, and interactive walkway.



### 5.4.1 Background and Problem

Jeddah city started many projects to develop its public spaces. Yet, public walkways devoted to pedestrians and cyclists are still a prime idea. The Jeddah Colorwalk initiative emerged in response to citizens’ need to practice their walking sport in a safe and desirable place, especially with the spread of COVID-19, which limited citizens’ physical movement.

### 5.4.2 Transformation

Jeddah Colorwalk aims to improve the city’s public realm, inspire people to walk and improve the overall quality of city life (fig 9-10). The project involved several preparations, meetings, workshops, and training sessions with community members, non-governmental and governmental organizations, and representatives until the execution phase. (Source: An interview with Dr. Adel Alzahrani, project curator)

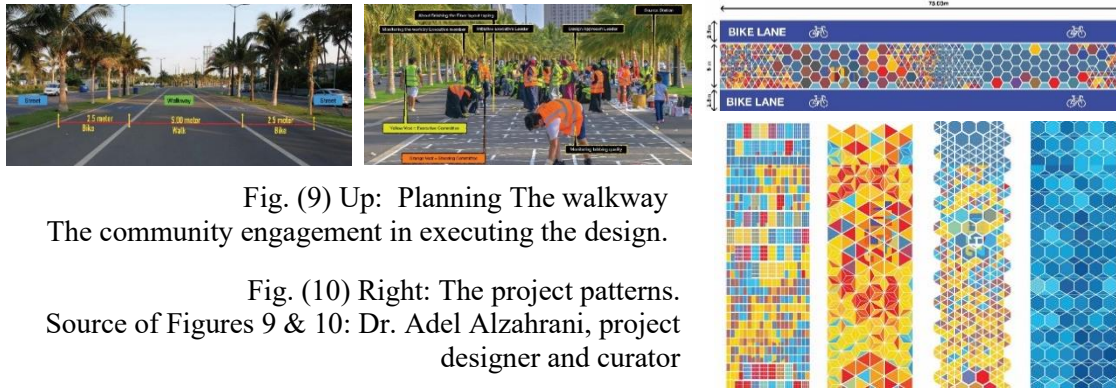


Fig. (9) Up: Planning The walkway  
The community engagement in executing the design.

Fig. (10) Right: The project patterns.  
Source of Figures 9 & 10: Dr. Adel Alzahrani, project designer and curator

### 5.4.3 Measuring the Colorwalk human-based qualities

Table 6 summarizes the tangible and intangible human-based qualities of the Colorwalk project.

Table (6) Analysis of human-based qualities in the Colorwalk Project, Jeddah, KSA

Tangible Qualities					Intangible Qualities				
Safety	Comfort	Scale	Accessibility	Zoning	Vitality	Walkability	Livability	Sociability	Inclusive
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Clear Functions with buffer zones	Consideration of needed public amenities	Considering standards	Identifiable zones for pedestrianization	Clear zones of walkability and cycling	Medium.	Main Use	Integration of socio-spatial needs	Medium	Walking and sport integrated

Source: the author

## 6. TOWARDS A HUMAN-BASED URBAN STREET

Through the course of this research, several principles, concepts, and strategies were explored, which can be adopted in similar cases to enhance and redevelop the current streets and turn them into human-based ones or to plan and design future ones. In addition, the key success factors of designing human-based places were explored and analyzed in diverse case studies. Thus, a comprehensive theoretical framework, as shown in Fig. 11, merges theory

and practice is concluded. The suggested framework has a multidimensional intervention approach, including tangible design considerations, such as zoning and scale, and intangible design considerations, such as liveability and sociability, to develop human-based places.

SCALE	Considering Human Scale in Physical Space in Terms of Accessibility and Activities
SAFETY	Considering Safe Accessibility, Buffer Zones, Materials, Night Light, and Vehicles' Speed Limitations
COMFORT	Responsive Streets with Adequate Public Amenities and Planting
ACCESSIBILITY	Considering Inclusiveness, Equity and Safety
VITALITY	Considering Mixed-use Street Activities Designing Complete Streets
ZONING	Designing Clear and Identifiable Functional Zones
WALKABILITY	Considering Clear, Safe, and Accessible Walking Zones
LIVIABILITY	Designing Inviting Social Venues, Allowing Various Activities
SOCIABILITY	Allowing Social Interaction and Socio-cultural Activities and Events
INCLUSIVENESS	Allowing Active use of streets, Considering Human Needs

Fig. (11) A Theoretical Model for Developing Human-based Urban Streets  
By the author

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