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Keywords:
urban open spaces, managing, benefits.

Assessment of the Impact of Public Urban Space Management on Its Performance and Returns.

A Comparative Study Between Selected Public Urban Spaces in the Central Axis of 6th of October City and Their Counterparts in the Central Axis of the Fifth Settlement in New Cairo

ABSTRACT

Urban public spaces provide vital breathing spaces for city residents and visitors alike. These spaces serve as meeting points for residents and visitors, fostering the exchange of news, ideas, and cultures. With their green elements, these spaces play a crucial role in balancing environmental components and serve as oxygen reserves for the city as a whole. They also support the local economy by accommodating both individual and collective economic activities, creating real job opportunities, increasing tax revenues from these activities, and boosting rental rates and property values in adjacent areas. When the potential of urban spaces is effectively harnessed through knowledgeable management focused on design, construction, monitoring, and continuous development, these spaces can yield significant social, environmental, economic, and urban benefits, enhancing the overall quality of life for city residents. This research adopts a comparative approach between two urban spaces that share common factors but differ in management strategies. The first case study is the central axis in 6th of October City, where experiments and observations were conducted on several public spaces. The second is the central axis in Fifth Settlement, located between North and South 90th Streets. The study compares the management methods in both areas, evaluates the performance of each space, and develops a mathematical model to determine the impact of urban space management on its outcomes, performance, and ability to attract people, ensuring the space remains vibrant, active, and influential.

الملخص

الملخص : الفراغات العمرانية العامة هي المتنفس لسكان المدن وزوارها ،حيث تعتبر ملتقى للسكان والزوار لتبادل الاخبار والافكار والثقافات ،كما انها تعتبر- بما تحويه من العناصر الخضراء - بؤرة رؤيه هامة لخلق التوازن بين عناصر البيئة ، و تمثل خزان الموازنة لمحتوى الاكسجين بالمدينة ككل،وهي من دعائم الاقتصاد المحلى لأى مدينة او حى بما تحوي من انشطة اقتصادية فردية وجماعية ومساهمتها الفاعلة فى خلق فرص عمل حقيقية وزيادة حصيلة الضرائب على الانشطة ورفع معدلات الايجارات واسعار العقارات المحيطة بها والقريبة منها. وعندما يتم استغلال امكانيات الفراغات العمرانيه عن طريق ادارة واعية بأهمية دورها فى تصميم وانشاء ومتابعة وتطوير الفراغات العمرانى باستمرار فانها تحقق المردود المرجو منها اجتماعيا وبيئيا واقتصاديا وعمرانيا وتساهم في الارتقاء بجودة الحياة لمواطني المدينة ككل .

وقد استخدم البحث اسلوب المقارنة بين نموذجيين من الفراغات العمرانية بينهما عوامل مشتركة وفي نفس الوقت اختلافات في اساليب الادارة . الاول بالمحور المركزى بالسادس من اكتوبر حيث تم اجراء تجارب وملاحظات وقياسات بإستخدام وسيلة الرصد و القياس المعتبرة لدي Wiliam Whyte وهي (TLF Time Labs Filming)على

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مجموعة من الفراغات العامة وكذلك بعض الفراغات العامة بالمحور المركزي بالتجمع الخامس المحصور بين شارع ال٩٠ الشمالى والجنوبى ومقارنة اساليب الادارة في كليهما وتقييم اداء كل فراغ على حدة وعمل تحليلات رياضة لتحديد تاثير ادارة الفراغ العمرانى علي مردوداته وأدائه وقدرته علي جذب الناس لامتاعهم وبقائه حيا ونشطا ومؤثرا .

1-introduction:

The measure of any great civilization is its cities and a measure of a city's greatness is to be found in the quality of its public spaces, its parks and squares. "John Ruskin"

Outstanding public spaces serve as the city's living room, bringing people together to enjoy both their surroundings and each other's company. These spaces are essential for fostering a high-quality urban life, providing the stage and backdrop for life's unfolding stories. They encompass a wide range, from iconic central plazas and squares to intimate neighborhood parks.

When stunning architecture is paired with thoughtfully designed public spaces, the result is truly remarkable: vibrant places that reflect richness and tradition, offering a meaningful setting for life to flourish. http://www.urbandesign.org/publicspace.html

- Definition of (UOS): Urban public open spaces were historically known as unbuilt areas. They were later defined as unbuilt spaces used to provide buildings with lighting, ventilation, and accessibility through roads, squares, alleys, plazas, or water surfaces. [i]

Over time, their definition evolved to describe them as containers for human activities. They host outdoor human activities and are accessible to everyone at all times for free. They are an essential component of the infrastructure of towns, cities, and villages, forming a continuous matrix of all unbuilt urban lands. Stiles (2009)[ii] These spaces link the inner parts of a city with the surrounding natural landscapes and can include elements of buildings such as rooftops, terraces, balconies, green gardens, and other features that shape the visual image of the city.[iii]

Cities, towns, villages, and all urban settlements where humans live must provide a level of quality of life that meets their expectations. (GoM, 2012)[iv] Recently, it has been observed that the quality of the external environment has deteriorated for several reasons. One of these is the integration of vehicles and mechanized movement into urban settlements, which now share pathways with pedestrians and sometimes even take precedence. Additionally, poor urban design, which lacks sufficient attention, has contributed to this decline.

Outdoor public spaces offer a significant and valuable opportunity for physical activities, provided they are prioritized and designed accordingly. Promoting walking and cycling as safe transportation options and providing open spaces for movement and exercise can reduce - environmental nuisances such as noise and dust. This, in turn, improves the external environment in terms of appearance, enjoyment, cleanliness, comfort, and overall attractiveness.[v]

Environmentally: Urban public spaces, particularly those containing green areas, have distinct environmental impacts. Increasingly, environmental scientists, economists, sociologists, and urban planners are focusing on maximizing their environmental, economic, social, and urban roles. (AtiqulHaq, 2011)[vi]

Schuel (2006)[vii] used the term urban green open spaces and defined them as one of the carefully planned components of the city for urban growth. These include squares, tree-lined streets, parks, and green corridors. (Festas, 2012; Noguera & Riera, 2016)[viii]. They represent essential public infrastructure, serve as buffers, and act as transitional zones between activities. They are a crucial means of preserving natural and cultural heritage while achieving environmental goals. The establishment of green corridors facilitates air circulation, protects water bodies, and supports the development of recreational activity areas.[ix]

Politically: The purposes and functions of open urban spaces have evolved over time, with an increasing emphasis on their role in contributing to sustainable development. Historically tied

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to social, cultural, and economic exchanges, they have recently gained political significance as a fundamental component of people's daily quality of life. (Festas, 2012, p. 3)[x]

The management of urban spaces refers to the institution, individual, or entity responsible for overseeing the urban space from the initial concept and its presentation through the city's detailed plan. Their responsibility extends through its various stages, which are:

Design and activity planning: Organizing uses and activities within the space.

Construction: Building and creating the spaces as planned.

Maintenance: Regular upkeep to ensure functionality and attractiveness.

Monitoring and continuous development: Tracking usage patterns, refining designs, and adding resources to align with sustainable development principles while continuously adapting to user behavior and meeting their evolving needs.

The research adopts a comparative approach between two urban spaces that share common factors but differ in management strategies. The first case study is the central axis in 6th of October City, where experiments and observations were conducted on 6 public spaces. The second is the central axis in Fifth Settlement, located between North and South 90th Streets. The study compares the management methods in both areas, evaluates the performance of each space, and develops a mathematical model to determine the impact of urban space management on its outcomes, performance, and ability to attract people, ensuring the space remains vibrant, active, and influential.

Research Problem: Some urban spaces lack proper management that ensures elements of attractiveness, enjoyment, safety, security, and quality for the urban environment. Despite their potential in terms of location, size, and surrounding uses, these spaces fail to efficiently achieve the desired social, economic, and environmental returns. As a result, they do not contribute effectively to sustainable development for their surroundings and the city as a whole, thereby wasting their intended value.

Research Objectives: The research aims to highlight the role of public urban open space management in improving, developing, and sustaining the performance of public urban spaces. It emphasizes that, in the absence of proper management, urban spaces become unattractive, inefficient, inactive, or stagnant, leading to wasted economic, social, environmental, and urban value.

Research Significance: The research highlights the importance of managing urban spaces and their role in ensuring maintenance programs, cleanliness, security, monitoring, development, hosting events and activities, operation, and supervision. This aims to enhance the performance of urban spaces, making them more attractive, vibrant, dynamic, and enjoyable for users of all age groups, social statuses, and financial levels.

Measurement Tools Used in the Research: The research relies on assessing the role of management through observation and direct interviews with those responsible for management. It measures the performance of urban spaces using **time-lapse filming**, capturing snapshots during specific times of activity and inactivity to understand user behavior patterns. By analyzing the captured images, certain criteria can be established to evaluate the urban space's impact, attractiveness, activity, and vibrancy. This enables the calculation of its social, economic, and environmental returns. A mathematical analysis model is then used to determine the impact of management quality on the space's performance. Finally, a comparison is made between two selected study areas under different conditions.

Research Methodology: The research adopts a **theoretical approach** to review the literature, exploring the definition of urban spaces, their significance, management methods, and their impacts, as well as the criteria governing management approaches and those determining performance efficiency. This is followed by a **field-based applied approach**, selecting two study areas and conducting experiments using validated measurement tools (e.g., time-lapse

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filming). Lastly, an **analytical approach** is employed to analyze and compare the results using a mathematical matrix to assess the impact of management role variables on the performance indicators and quality of urban spaces.

2-Benefits gained from (UOS)-

Social Benefits of (UOS): The social function of these spaces can be traced historically, where squares and public spaces in European cities became focal points for events and dramas that characterized European societies.[xi] To this day, they remain a major asset contributing to the appeal of European cities. Similarly, in Islamic and Arab cities, these spaces hold memories of inspiring and impactful political and social events, preserving their historical and cultural significance. [xii]

Public spaces in urban areas generate numerous social benefits, including enhanced health, safety, equity, inclusion, and social capital. The World Health Organization (WHO) highlights that urban green spaces significantly impact human health. Interaction with green spaces can alleviate stress, boost social capital, strengthen the immune system, promote physical activity, and reduce the risks of obesity, cardiovascular diseases, and diabetes. Additionally, green spaces help reduce air pollution, mitigate urban heat island effects, increase sunlight exposure, and improve sleep quality.[xiii]

However, current research does not clearly define the impact of open space size. Studies on accessibility suggest that green spaces within 300 meters are ideal for daily use, while larger natural areas are most effectively utilized within a range of 1 to 1.5 kilometers. A notable finding reveals that residents of inner-city areas and suburban areas share a similar interest in and need for urban green spaces, suggesting that broad strategies for green space planning can be applied across different urban regions. UN-Habitat. (2020). *Public Space: A Global Perspective.*[xiv]

Environmental benefits and recommendations of (UOS): Sustainable Development Goal (SDG) 11.7 aims to ensure that by 2030, [xv]everyone has access to safe, inclusive, and accessible green and public spaces, with special attention to women, children, older adults, and persons with disabilities. The corresponding indicator (11.7.1) measures the "Average share of the built-up area of cities that is open space for public use for all, disaggregated by sex, age, and disability status." This indicator is conceptually similar to the 'openness index' used in the *Atlas of Urban Expansion* (2016), which measures the average proportion of open space pixels within a walkable distance. *World Bank. (2018).*[xvi].

UN-Habitat recommends that 15-20% of urban land should be allocated for public open spaces, and 30-35% should be allocated for streets and roads. However, there is limited evidence on how these percentages influence social and economic outcomes in various urban contexts and regions. In policy and planning, the term 'open space' is frequently misinterpreted or replaced by the term 'green space.'

The World Health Organization (WHO) defines 'urban green space' as public green areas. WHO recommends using 'square meters of green space per capita'[xvii] as a health indicator for sustainable cities and suggests a minimum of 9 square meters of green space per person within a 15-minute walking distance. WHO Europe has introduced an 'urban green space indicator' that measures the percentage of the population with access to a green space of at least 0.5 hectares within 300 meters. This indicator is based on European research linking green spaces to health outcomes.[xviii]

This indicator closely aligns with the European Common Indicator, which measures "the percentage of citizens living within 300 meters of a public open area of at least 0.5 hectares." Similarly, the US Environmental Protection Agency uses metrics like green space per capita and population within a 500-meter walking distance.

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In Europe and North America, public open spaces are often green, but in other regions, green space is not always synonymous with open space. The differences in greenness between open spaces and their implications for planning and social value have yet to be thoroughly explored.[xix]

Economic benefits of (UOS): The economic value provided by public spaces is also highly significant, as they were historically considered key points for trade exchange in cities, central hubs for activities, religious celebrations, and the promotion of democracy.

Public urban spaces have thus been regarded as open areas accessible to all people freely and without restrictions. These spaces support social, cultural, environmental, economic, and political uses, as well as research purposes. They include all open areas, urban green spaces, gardens, and parks, with access typically unrestricted, at least during daylight hours, for free.[xx]

The economic value, or exchange value, of public spaces—often linked to their social use value—can be assessed from multiple perspectives. The most common approach measures quantitative impacts on land value, property value, and housing prices. However, limited research exists, and studies are not evenly distributed worldwide.

Hedonic pricing studies conducted in Germany, Malaysia, Spain, and the USA reveal that proximity to public open or green spaces has a significant positive impact on housing prices. These studies primarily consider distance as a factor but do not address the size of the spaces or the density of surrounding areas. In contrast, other research highlights the importance of space size. For instance, a study in London found that each hectare of green space within a 1 km radius increases average house prices by 0.08%.

Large-scale housing market analyses in Stockholm [xxi]

Sweden, further indicate that the amount of park space within a 1 km radius significantly influences housing prices in these regions. The introduction of new public spaces also demonstrates notable effects. [xxii]

Since the opening of the High Line Park in 2009, property values in Chelsea, New York City—already among the highest in the city—have seen an 85% increase in average condominium prices. Similarly, properties near Bryant Park have experienced a 20% to 25% increase in value.

Land values can also be affected by planning regulations. For example, a study in Maryland, USA, found that legally protected open spaces increased nearby residential land values by more than three times compared to equivalent, less-protected "developable" open spaces.

A recent study on the economic value of London’s parks reveals benefits that extend beyond property values. The avoided healthcare costs resulting from London’s green spaces are estimated at £950 million annually. This figure considers increased physical activity, lower rates of mental illness, increased recreational use, carbon storage, and temperature regulation (cooling effects). The gross asset value of London’s public parks exceeds £91 billion. The study concludes that for every £1 spent by local authorities and their partners on public parks, Londoners receive at least £27 in value.[xxiii]

Similarly, an economic analysis of San Francisco's parks and recreation system estimates its annual value at $959 million. This figure accounts for tax revenues from nearby properties, tourism income, direct park usage, health benefits, community cohesion, and the environmental benefits of clean water and air. The market value of properties located within 150 meters of parks is estimated at $40 billion.[xxiv]

In Philadelphia, research shows that the economic value of parks significantly outweighs maintenance costs, with nearly $100 generated for every $1 spent on park upkeep.

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Financing public spaces can be likened to land value capture, a method used to fund other public goods, such as public transit. This approach aligns with value capture principles outlined in the National Bank of Canada's statement on transit development financing.[xxv]

The management of public urban spaces encompasses all public areas, regardless of their inclusivity, democratic nature, or openness, ensuring they fulfill their intended roles effectively. This involves four interconnected stages.

3-Analysis of the Criteria for Evaluating Urban Space Performance

An urban space that is managed based on a well-studied approach, considering the nature of the space and the profiles of its users, while closely monitoring its performance and interaction with the public, becomes increasingly vibrant and productive. Such spaces achieve the desired safety, enjoyment, and financial returns, directly contributing to enhancing the city's image for both its residents and visitors. In fact, some developed countries regard these spaces as vital resources and key economic pillars that help increase national income and strengthen the local economy.

A study conducted by one of the most prominent NGOs focused on public spaces, *Project for Public Spaces*, examined over 1,000 public spaces in cities worldwide. Through a detailed analysis of the criteria that determine the success of an urban space, the study identified four main metrics that influence its performance, success, productivity, and creativity: *Uses & Activities, Accessibility, Comfort & Image, Sociability, and this research adopted Economic Impact as a factor.*[xxvi]

Uses and Activities: Urban spaces are now recognized as containers for people's activities and are often referred to as the *City's Living Room*. They are no longer seen merely as unoccupied areas or non-constructed spaces. Instead, they serve as hubs for activities that do not require the privacy of a home, including walking, eating, reading, playing, talking, sharing news and cultures, shopping, observing, singing, dancing, acting, skating, and engaging with the internet.

The functions of the buildings surrounding the urban space—particularly the ground floors—play a significant role in enriching and activating the area. For example, commercial shops, cafés, and restaurants contribute to its vibrancy, while office buildings, workshops, and similar uses that do not interact with the public do little to enhance the space or attract residents and visitors.

The strength of this criterion can be observed through the diversity of activities and uses, the variety of users across different age groups, social backgrounds, and genders, as well as the presence of women and children. Additionally, the number of participants in various activities and the behavioral patterns of the people in the space provide further evidence of its vitality and success.

Access and Linkage: One of the most important features of a successful urban space, and a key criterion for judging its effectiveness, is its accessibility. A successful space should be easily and safely reachable without risks, such as crossing busy roads or other obstacles. It should be part of an integrated pedestrian network, visible from multiple directions and from a distance. The space must allow seamless movement to and through it for all types of users, including children, the elderly, and individuals with special needs. Movement within the space itself should also be easy, with no challenging level differences or safety hazards.

Certain elements encourage residents and users to visit such spaces, such as commercial shops lining the streets leading to them. Ensuring safety for users—by providing wide, secure sidewalks that minimize the threat of vehicle traffic—enhances accessibility and promotes vitality and activity in the space.

Additionally, the space should be directly connected to public transportation networks, equipped with sufficient parking facilities proportional to its size and expected number of

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visitors. It must also integrate seamlessly with the city or surrounding area's pedestrian network, forming part of a cohesive Pedestrian Network.

Comfort and Image: Users' perception of the beauty of an urban space—reflected in factors such as cleanliness, the proportions and relationships of surrounding buildings, their condition, and the aesthetic and architectural elements—creates a lasting positive mental image. This encourages users to revisit the space and increases its overall appeal.[xxvii]

Comfortable seating, especially movable chairs (as fixed seating can limit the space's flexibility), is one of the most attractive elements. Such seating allows users to relax, linger longer, explore the space fully, and choose their preferred location and orientation to enjoy the view they desire.

Urban spaces that provide comfort and a positive image are more vibrant and dynamic, reflecting good performance. Additionally, successful spaces interact well with environmental elements such as sunlight, rain, humidity, and wind, further enhancing their attractiveness and usability.

Economic Aspects: While the above criteria are globally recognized standards for evaluating public spaces, the economic dimension is especially critical in the context of Egyptian public spaces. This criterion plays a major role in determining the success of an urban space by measuring its direct and indirect economic returns.

Direct returns include revenue from parking facilities, rental income from shops and kiosks, and income generated by commercial activities such as markets and exhibitions. Indirect returns come from creating real job opportunities, increasing property values (land, apartments, and buildings), and boosting tourism and related services.

4-Analysis of the Criteria Measuring the Performance of Public Urban Space Management during post occupation stage:

If management is about utilizing resources to achieve maximum returns, then the management of urban spaces involves leveraging and optimizing the potential of these spaces to achieve the highest possible social, cultural, economic, and environmental benefits. This can only be achieved through a specialized management system comprising a multidisciplinary team with expertise required for design and management processes. Such a team should ideally include: A group leader, Core team members such as an Architect, a Landscape Architect, an Accountant, experts in Psychology and Sociology, an Urban Designer, A specialist in organizing events and recreational activities, And a Traffic Planner for vehicle movement and parking lots.

This structure, equipped with such skilled personnel, must work to activate the space, enhance its vibrancy, and make every effort to attract people to it. This effort contributes to increasing the space's returns and benefits. The team’s responsibilities extend beyond the design and planning phases to include management tasks such as maintenance, cleaning, security, event organization, traffic control, and public transportation, as outlined below:

Evaluating of managing (U.O.S)

The Administrative Structure Tasks for Urban Space Throughout the Project Life Cycle and Its Various Stages

Below are the tasks of the administrative structure for urban space management across the project life cycle and its different phases:[xxviii]

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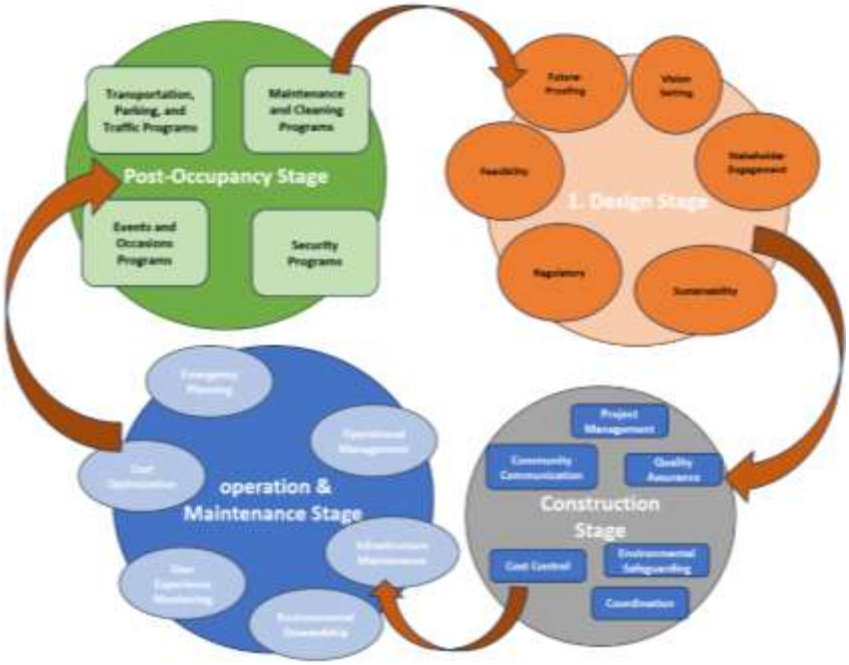

Figure (1) illustrates the role played by public urban space management during the various stages of its life cycle.

1. Design Stage *(Whyte, 1980; Carmona, 2015).*[xxix] [xxx]

- **Vision Setting**: Establishing the purpose and goals of the open space (e.g., recreational, cultural, or ecological).
- **Stakeholder Engagement**: Collaborating with architects, urban planners, and community members to integrate diverse needs and preferences.
- **Site Analysis**: Assessing site conditions, including topography, climate, existing vegetation, and accessibility.
- **Sustainability Integration**: Ensuring eco-friendly designs by incorporating renewable energy sources, green infrastructure, and water management systems.
- **Regulatory Compliance**: Ensuring the design adheres to urban planning codes, zoning laws, and environmental regulations.
- **Budget and Feasibility Studies**: Balancing aesthetic, functional, and economic factors to finalize a feasible design.
- **Future-Proofing**: Designing adaptable spaces that can accommodate future growth, new technologies, or changing user needs.

2. Construction Stage (UN-Habitat, 2020).[xxxi]

- **Project Management**: Overseeing the execution of the design to ensure adherence to the approved plans and timelines.
- **Quality Assurance**: Monitoring construction materials and techniques to ensure durability and safety.
- **Environmental Safeguarding**: Implementing measures to minimize environmental impact during construction (e.g., waste management, soil preservation).
- **Coordination**: Collaborating with contractors, engineers, and suppliers to address challenges and avoid delays.
- **Cost Control**: Monitoring expenses to stay within budget while ensuring quality.
- **Community Communication**: Informing the local community about construction timelines and potential disruptions.

3. Maintenance Stage: [xxxii]

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- **Operational Management**: Establishing protocols for the regular upkeep of the space, such as landscaping, cleaning, and waste collection.
- **Infrastructure Maintenance**: Repairing and upgrading facilities (e.g., benches, lighting, pathways) to ensure usability and safety.
- **Environmental Stewardship**: Preserving green areas through pruning, irrigation, pest control, and biodiversity support.
- **User Experience Monitoring**: Collecting feedback from users to identify maintenance priorities and areas needing improvement.
- **Cost Optimization**: Implementing efficient resource use, such as energy-efficient lighting and water-saving irrigation systems.
- **Emergency Planning**: Preparing for unforeseen events like extreme weather or vandalism with contingency plans.

4. Post-Occupancy Stage (Madani et al., 2018).[xxxiii]

Maintenance and Cleaning Programs: These programs focus on regularly emptying trash bins (appropriately distributed within the space), cleaning surfaces, and repairing damaged elements like lighting poles, seating, and other facilities.

Security Programs: These involve the strategic placement of security personnel, recording criminal activities, striving to prevent crime before it occurs, monitoring vandalism and criminal behavior, and supervising secluded areas.

Events and Occasions Programs: The management's ability to organize a variety of recreational, marketing, cultural, and artistic programs is key. This includes diversifying activities, advertising and promoting them through various media, and creating advance schedules for events and activities.

Transportation, Parking, and Traffic Programs: These programs demonstrate the management's capability to solve surrounding traffic problems, provide suitable and diverse modes of transportation, regulate their frequency and capacity according to visitor demand, and establish convenient parking facilities near the space for visitors.

The behavioral mapping of users of urban spaces during both daytime and nighttime hours were studied to assess the attractiveness, vibrancy, and safety of these spaces. This was done to determine the performance rate of the urban space using *time-lapse filming*, with a photograph taken every 5 minutes. The study covered all selected urban spaces along the central axis of the 6th of October City and the central axis of New Cairo (Fifth Settlement).

The observed behavioral activities of visitors included: passing through, standing, sitting, eating or drinking, reading, using mobile phones, playing, watching, and shopping in stores. These behaviors were noted among men, women, and children. The total number of visitors to each space per hour was also recorded.

4-Field Studies

- Six public spaces in the central axis of Fifth Settlement in New Cairo were selected, alongside six other spaces in the central axis of Sixth of October City. [xxxiv]
- Field studies were conducted on both sets of spaces simultaneously and on nearly the same days by the students. These studies were part of a field research project for students of the Urban Design course in the Department of Architecture. The methodology, measurement tools, and information required for precise comparison between the spaces in the two areas were clearly defined.

The first area (New Cairo) is well-planned by developers, possesses a distinctive character, and is believed to be well-managed. The second area comprises informal spaces within the urban fabric, including spaces linked to educational facilities or regional transportation hubs. Various research tools were employed for the study, including time-labs filming, direct

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interviews with users, Questionnaire for 100 persons, Questionnaire for 25 students, and direct observation: -

- **Time-labs filming** was used to monitor behavioral patterns of users in the public spaces.
- **Questionnaire for 100 persons/ every urban space (the users of the space)**
- **Questionnaire for 25 students/ every urban space (the surveyors of the space from students of the urban design cores)**
- **Direct interviews** involved administering questionnaires to gather responses on the attractiveness of the spaces.
- **Observation** was utilized to assess architectural and visual aspects, linking urban spaces to their surroundings.

The objective was to determine the efficiency of each urban space's performance and management in fulfilling its role in place-making and contributing to the development of its environment.

Criteria for Evaluating Urban Space Performance:

- Some indicators of urban space performance can be derived from **time-labs filming**, focusing on **social aspects** such as: The presence of women in the space.
- Behavioral patterns indicating a lack of engagement or interaction with the space, despite physical presence.

Indicators of Urban Space Efficiency

Efficiency indicators were assessed through questionnaires administered to users, particularly focusing on **Accessibility**, and how it is affected by access & linkage, including:

- **Ease of movement to and within the space:** This involved studying traffic flow, the availability of parking spaces, and pedestrian pathways.
- **Level changes and accessibility:** Assessing how level differences were managed, the presence of ramps for people with disabilities, and the ability of elderly users and individuals with special needs to access and move through the space.
- **Connectivity:** Evaluating the connection between the urban space and surrounding urban spaces, as well as the ease of movement between them.

The study aimed to holistically measure the performance, accessibility, and management of urban spaces to determine their role in enhancing the surrounding environment and fostering place-making.

Uses & Activities: The evaluation of **uses and activities** involves observing the diversity of activities and behavioral patterns of users, as well as the uses of the buildings surrounding the space and their integration with the activities within the space. Additional considerations include:

- The number of users benefiting from the space's services.
- The percentage of user participation in various activities.
- The extent of the space's use during different times of the day and night.
- How the space interacts with users in groups and as individuals.

Comfort & Visual Image

The evaluation of **comfort and visual image** includes:

- **Safety:** The presence of security personnel monitoring the space.
- The level of safety for users crossing vehicular roads.
- The occurrence of any security issues within the space.
- **Adaptation to environmental factors:**
- The availability of shaded areas and water features to regulate the climate.
- The presence of green elements.
- Availability of seating for groups and individuals (**Sittability**).

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- **Cleanliness:**
- The availability and proper placement of sufficient trashcans.
- Observations on the cleanliness of the space and the condition of the surrounding buildings.
- The visual harmony and contribution of surrounding buildings to the space.

Economic Aspects: The economic evaluation includes:

- Rental prices for shops, offices, and residential units around the space, and whether these prices are positively or negatively affected by the proximity of the urban space.
- Tourist footfall in the space and job opportunities it provides.
- Utilization of street vendor activities.
- The value of land and real estate surrounding the urban space.

Management Performance:

The assessment of **management performance** examines several stages:

- **Design:**
- The design of the space, including the team involved in its conceptualization.
- **Construction:**
    - Compliance with construction standards.
    - Quality of finishes and overall execution.
    - Suitability of materials used for the space's activities and their ability to withstand environmental conditions and usage patterns.
    - Availability of security and monitoring systems.
    - Organization of events, celebrations, and recreational activities at the site.
    - Maintenance of plant elements and adherence to a defined care schedule.
    - Accessibility, including parking availability, approaches to the space, and movement within it.
- **Development:**
    - Continuous observation and feedback from users to identify service gaps and opportunities for improvement.
    - Incorporation of investment opportunities and the enhancement of the space to meet user needs.
    - Hosting and publicizing a schedule of events to encourage user engagement and enhance the value of the space.

This comprehensive evaluation ensures that the urban space continues to meet user needs, fosters a positive environment, and achieves sustainable development.

Analysis of Selected Areas and Plazas Based on (TLF) Data:

Through the analysis of the **diagrammatic chart** created based on TLF data for the selected areas and plazas from the two main regions, the following observations can be made for all areas:

4-1-Data Collection Phase:

In this phase, each urban space was monitored and observed through time-lapse filming 'photography', capturing one image every five minutes from 10:00 AM to 10:00 PM. This process was applied to each of the twelve urban spaces, as shown in the attached groups of images.

This was followed by the extraction and counting of the captured images, accompanied by detailed observation of the various user activities (e.g., passing through, standing, sitting, consuming food and beverages, shopping, etc.). Each user was categorized by type and age group, and all observations were systematically compiled into tables, as illustrated in Tables.

Cairo Festival Area: the Cairo Festival City Mall, a regional shopping and entertainment hub surrounded by outdoor plazas, dining promenades, and open-air gathering spaces. These areas

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serve as vibrant urban nodes for both residents and visitors, CFC features both Northern and Southern Business Districts, which include office buildings, public plazas, and landscaped boulevards. These spaces are designed to encourage business activity and social interaction, with amenities such as cafes, green spaces, and event venues

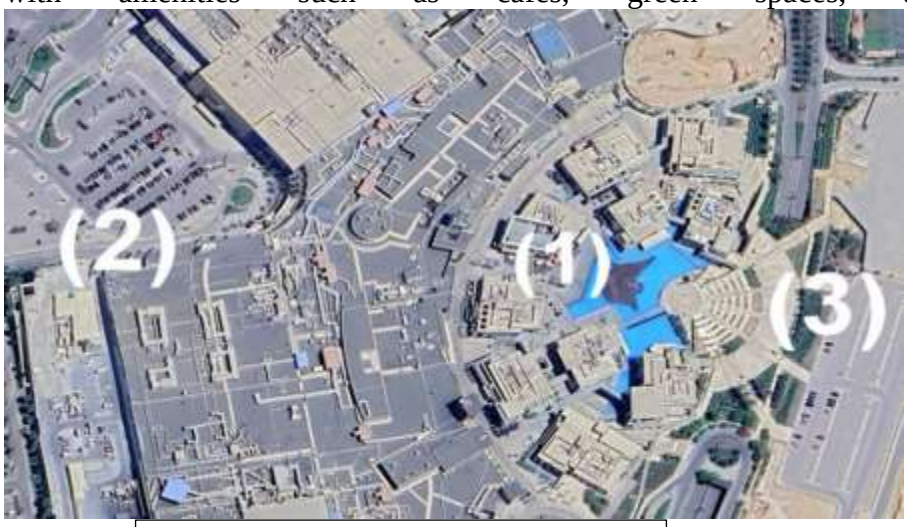

Fig. (2) map for Cairo Festival City (3 plazas)

- **Plaza 1 (Cairo Festival city 1):**
  - The pedestrian traffic is relatively high throughout the day across all age and social groups but decreases slightly at night.
  - The proportion of males and females is almost equal throughout the day.
  - A moderate percentage of people stand without engaging in any activity, while a medium percentage sit and consume food and beverages.
  - A relatively high percentage of people engage in shopping, as the location contains numerous well-known shops and stores.
  - This plaza is classified as a **commercial and entertainment** space

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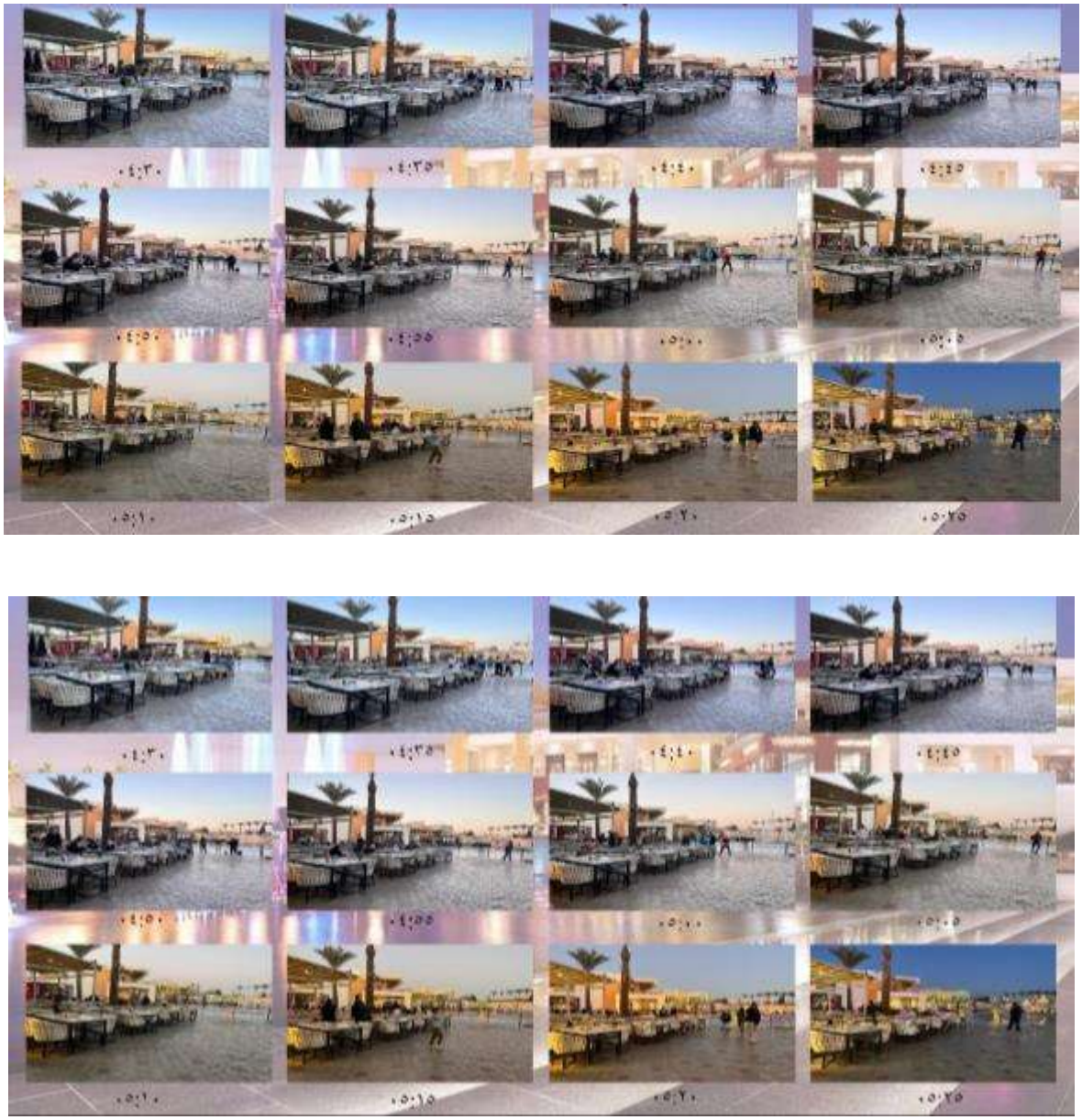

Figure (3-5-4): A series of images illustrating people's activities during different times of the day in the first urban space at Cairo Festival City, New Cairo.

Plaza 2 (Cairo Festival 2):

- Higher pedestrian traffic is observed due to the presence of parking lots, large stores, and various activities.
- It serves as an entrance to these commercial areas.
- A lower percentage of people stand without engaging in activities.
- The space functions more as a **transitional area**

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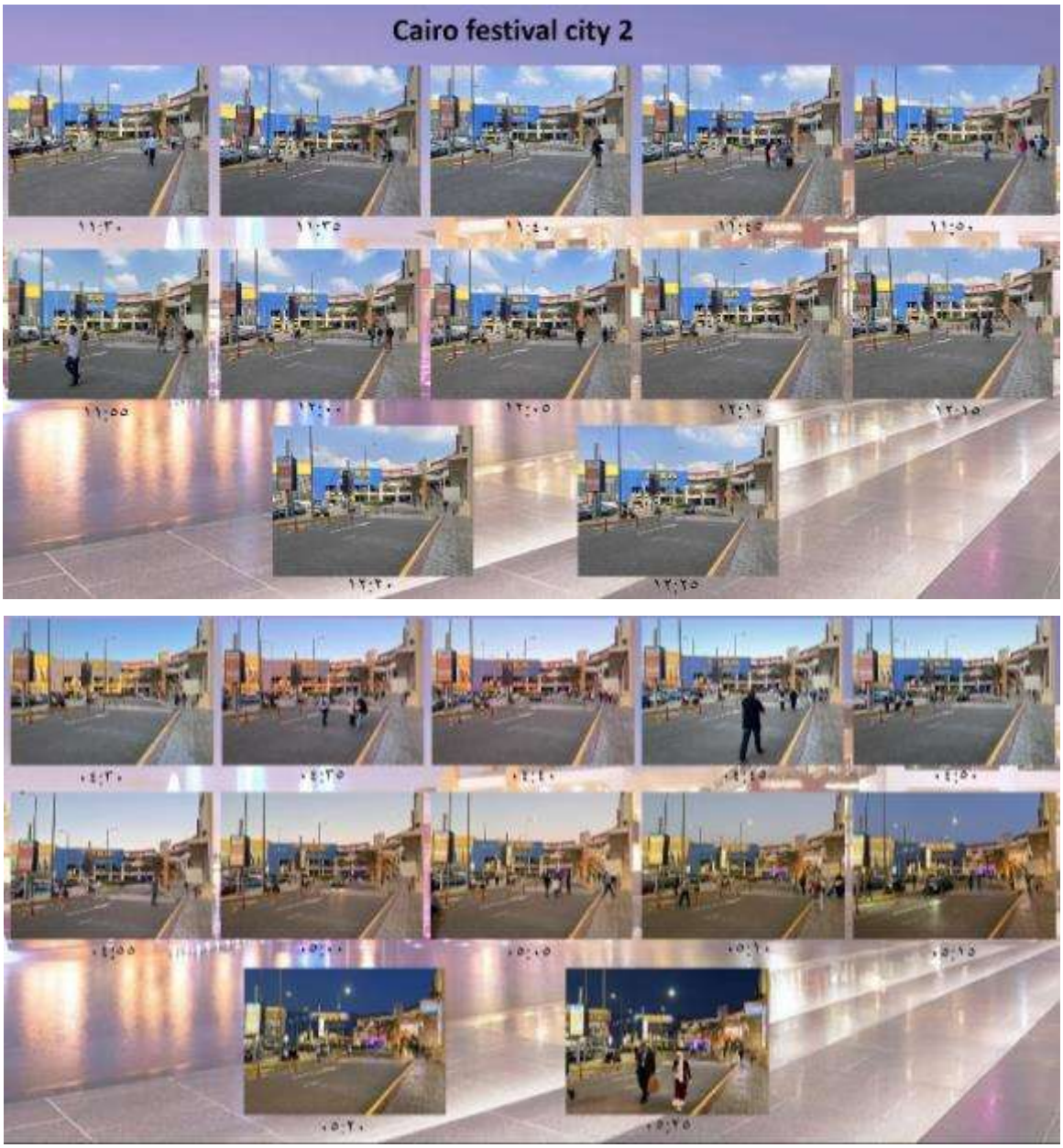

Figure (6-7): A series of images illustrating people's activities during different times of the day in the 2Nd urban space at Cairo Festival City, New Cairo.

Plaza 3 (Cairo Festival 3):

- The activity in this plaza is **festive and commemorative**, influenced by the presence of an **open-air theater** and related events.
- There is a notable increase in pedestrian traffic, standing, watching performances, and using mobile phones for photography.
- The plaza is **relatively active**, with a significant rise in activity during **events at the open-air theater and dancing fountain shows**.

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Figure (8-9-10): A series of images illustrating people's activities during different times of the day in the 2Nd urban space at Cairo Festival City, New Cairo.

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Downtown New Cairo Mall, also known as **Downtown Katameya**, is one of the most prominent shopping and entertainment destinations in New Cairo's Fifth Settlement. The mall offers a modern, open-air shopping experience, blending retail, dining, and leisure in a vibrant urban setting.

The mall is strategically located in the heart of Katameya, New Cairo, near the 90th Street and the Suez Road, making it easily accessible from various parts of the city.

It spans approximately 45,000 square meters of premium commercial space, featuring multiple buildings, each with two floors dedicated to retail shops, restaurants, and cafes, as well as outdoor entertainment areas.

The mall provides extensive underground parking facilities for visitors' convenience.

Fig. (11) illustrating the map of downtown area in new Cairo

- **Plaza 4 (Downtown 1):**
- A diverse range of activities is observed.
- Pedestrian traffic is relatively lower, while standing, watching, and consuming food and beverages increase, especially at night.
- There is a balance in activity density throughout the day, making this plaza active nearly all the day.

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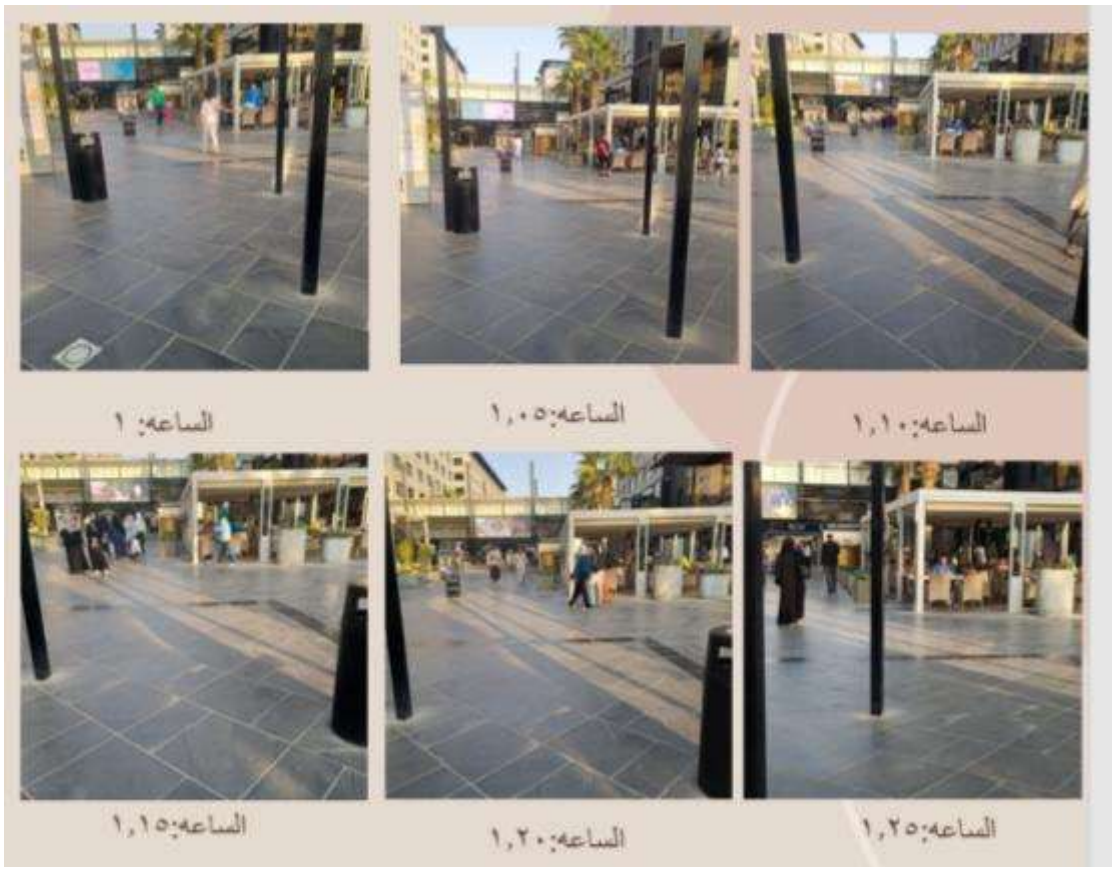

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Figure (12-13-14-15): A series of images illustrating people's activities during different times of the day in the 1St. urban space at Cairo Downtown, New Cairo.

- **Plaza 5 (Downtown 2, Fifth Settlement):**
- A highly **active plaza** with reduced pedestrian traffic but increased activities such as dining, drinking, sitting, watching, and shopping.
- The plaza is surrounded by restaurants, cafes, retail stores, and children's entertainment areas, attracting diverse age groups.

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Figure (16-17-18): A series of images illustrating people's activities during different times of the day in the 1St. urban space at Cairo Downtown, New Cairo.

- **Plaza 6 (Downtown3 Area):**
- Very low pedestrian traffic but a high presence of sitting, dining, and drinking activities due to the large number of restaurants and cafes.
- A higher proportion of female visitors suggests that the plaza is characterized by security, cleanliness, and tranquility.
- This distinctive and attractive plaza has an activity high level of throughout the day.

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Figure (19-20): A series of images illustrating people's activities during different times of the day in the 1St. urban space at Cairo Downtown, New Cairo.

Table 1 presents the extraction of data on people's activities in public spaces in the Fifth Settlement, based on images captured at each site using artificial intelligence applications.

Table 1 presents the extraction of data on people's activities in public spaces in the Fifth Settlement, based on images captured at each site using artificial intelligence applications.

	activities	passing throu		standing		sitting		eating or drinking		reading		using mobile phones		playing		watching		shopping	
	time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
1 Cairo festival	10-12 AM	38	45	39	22	42	22	11	15	1	0	15	12	4	5	12	7	82	61
	12-02 PM	44	52	41	28	48	20	21	22	0	0	32	19	6	6	21	14	122	58
	02-04 PM	42	48	51	24	41	15	25	44	0	0	39	22	4	3	17	15	111	80
	04-06 PM	51	42	42	18	22	12	22	22	0	0	33	21	3	2	11	18	78	98
	06-08 PM	42	23	22	11	51	20	25	32	0	0	22	12	1	1	19	10	56	152
	08-10 PM	12	21	15	13	21	13	28	29	0	0	18	10	0	0	6	8	18	43
	total	229	231	210	116	225	102	132	164	1	0	159	96	18	17	86	72	467	492
	activities	passing through		standing		sitting		eating or drinking		reading		using mobile phones		playing		watching		shopping	
	time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
2 Cairo festival	10-12 AM	44	51	22	44	61	15	10	5	0	2	4	8	4	3	8	2	12	11
	12-02 PM	52	62	32	25	58	22	12	2	1	0	2	12	3	11	2	8	10	5
	02-04 PM	50	55	21	26	42	12	2	3	0	0	3	11	1	1	8	2	5	2
	04-06 PM	66	71	50	41	45	5	5	3	2	0	3	19	2	2	15	1	1	2
	06-08 PM	30	36	12	18	31	8	4	11	1	4	2	2	2	2	4	5	8	3
	08-10 PM	21	28	9	15	21	2	4	2	0	5	1	0	1	1	6	2	2	2
	total	263	303	146	169	258	64	37	26	4	11	15	52	13	20	43	20	38	25
	activities	passing through		standing		sitting		eating or drinking		reading		using mobile phones		playing		watching		shopping	
	time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
3 Cairo festi	10-12 AM	51	62	560	210	705	560	50	70	0	0	255	55	5	5	55	60	0	0
	12-02 PM	55	66	500	220	855	760	70	60	0	0	275	110	20	10	110	220	0	0
	02-04 PM	62	53	570	205	750	610	90	40	0	0	90	155	10	5	15	25	0	0
	04-06 PM	44	42	495	190	900	575	90	105	0	0	110	90	25	40	30	10	0	0
	06-08 PM	35	33	490	280	945	850	55	30	0	0	280	165	0	5	5	15	0	0
	08-10 PM	32	27	435	260	345	495	110	55	0	0	115	50	0	0	25	0	0	0
	total	279	283	3050	1365	4500	3850	465	360	0	0	1125	625	60	65	240	330	0	0
	activities	passing through		standing		sitting		eating or drinking		reading		using mobile phones		playing		watching		shopping	
	time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
4 downtown	10-12 AM	70	66	220	210	210	185	220	200	0	0	110	75	0	0	65	40	80	90
	12-02 PM	78	87	265	240	205	180	210	190	5	0	65	30	0	0	115	135	55	135
	02-04 PM	77	67	280	260	215	175	255	220	0	0	55	45	5	10	60	55	95	115
	04-06 PM	85	28	260	240	205	150	165	155	10	0	45	35	15	5	60	50	160	175
	06-08 PM	76	76	170	150	110	90	180	150	5	5	90	60	0	0	70	45	110	125
	08-10 PM	88	62	155	140	90	100	220	240	0	0	35	15	0	0	30	15	90	105
	total	474	386	1350	1240	1035	880	1250	1155	20	5	400	260	20	15	400	340	590	745
	activities	passing through		standing		sitting		eating or drinking		reading		using mobile phones		playing		watching		shopping	
	time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
5 downtown	10-12 AM	88	27	330	290	330	355	450	460	5	5	115	90	20	20	110	90	215	270
	12-02 PM	94	92	285	255	360	385	460	500	0	0	90	55	40	45	55	45	200	210
	02-04 PM	106	112	275	250	440	420	520	530	15	0	35	35	15	20	70	65	175	185
	04-06 PM	121	114	205	190	310	340	545	555	5	5	40	20	10	5	40	20	120	140
	06-08 PM	118	122	165	90	435	450	535	610	0	0	20	10	15	10	35	15	115	150
	08-10 PM	101	100	125	100	400	405	790	690	5	0	20	5	20	15	20	10	55	90
	total	628	567	1385	1175	2275	2355	3300	3345	30	10	320	215	120	115	330	245	880	1045
	activities	passing through		standing		sitting		eating or drinking		reading		using mobile phones		playing		watching		shopping	
	time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
6 downtown	10-12 AM	3	2	15	15	440	420	540	605	0	0	40	30	5	0	15	10	15	25
	12-02 PM	8	6	10	5	385	440	555	665	0	0	35	40	0	5	20	15	10	20
	02-04 PM	4	3	25	20	420	450	505	555	0	0	20	15	10	5	30	20	30	40
	04-06 PM	5	4	20	15	330	425	460	505	0	0	30	45	0	0	10	5	15	25
	06-08 PM	7	5	20	15	370	410	500	650	0	0	40	55	0	0	20	15	20	15
	08-10 PM	6	3	10	10	415	470	600	750	0	0	5	10	0	0	25	10	10	5
	total	33	23	100	80	2360	2615	3160	3730	0	0	170	195	15	10	120	75	100	130
	average	317.667	298.833	1040.17	690.833	1775.5	1644.33	1390.67	1463.33	9.16667	4.33333	364.833	240.5	41	40.3333	203.167	180.333	345.833	406.167
al	no. of peo	1906	1793	6241	4145	10653	9866	8344	8780	55	26	2189	1443	246	242	1219	1082	2075	2437

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Central Axis of 6th of October City

Figure (21): MAP FOR 4 URBAN PLACES IN 6Th of October city

Central Axis of 6th of October City: Plaza 1:

- Connected to October 6 University, with emerging activities such as reading due to its educational plaza nature.
- Highly active with numerous cafes and restaurants, leading to a dominance of sitting and dining activities.
- The plaza has a high attractiveness, reducing pedestrian traffic but lower activity levels at night.

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Figure (22): A series of images illustrating people's activities during different times of the day in the 1St. urban space at 6Th. Of October central axis

- **Plaza 2:**
  - Lower pedestrian traffic but contains **restaurants and cafes**, resulting in increased **sitting and dining activities**.
  - The activity level is **relatively lower**,

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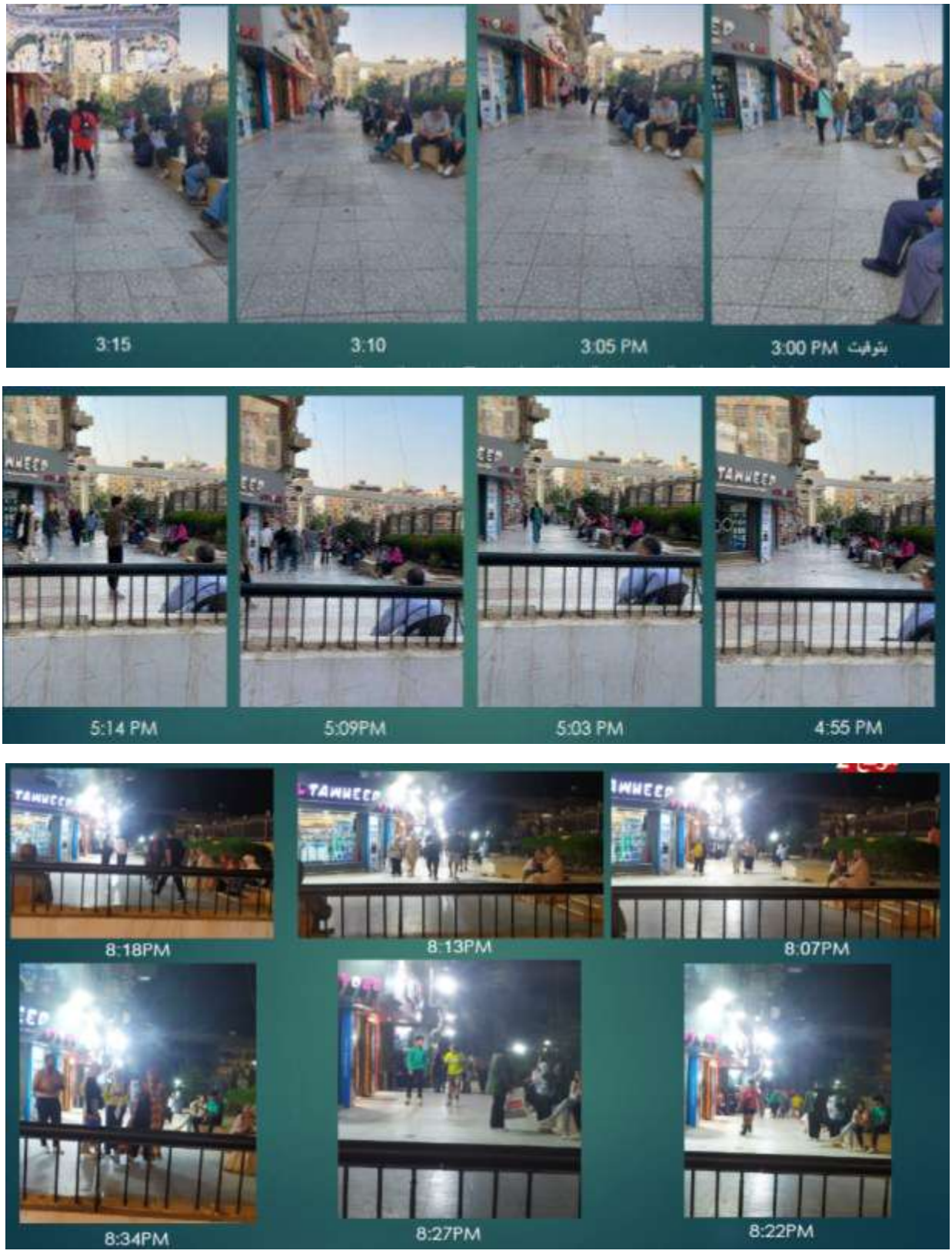

- Figure (23): A series of images illustrating people's activities during different times of the day in the second. urban space at 6Th. Of October central axis

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- **Plaza 3:** **Highly active**, with an increase in **reading, dining, and shopping activities** throughout the day.

- Figure (24): A series of images illustrating people's activities during different times of the day in the third. urban space at 6Th. Of October central axis

- **Plaza 4:**
  - Features **diverse activities throughout the day**, maintaining a **good consistent activity level**

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- Figure (25): A series of images illustrating people's activities during different times of the day in the 4Th. urban space at 6Th. Of October central axis

- **Plaza 5** at 6Th. Of October central axis **:**

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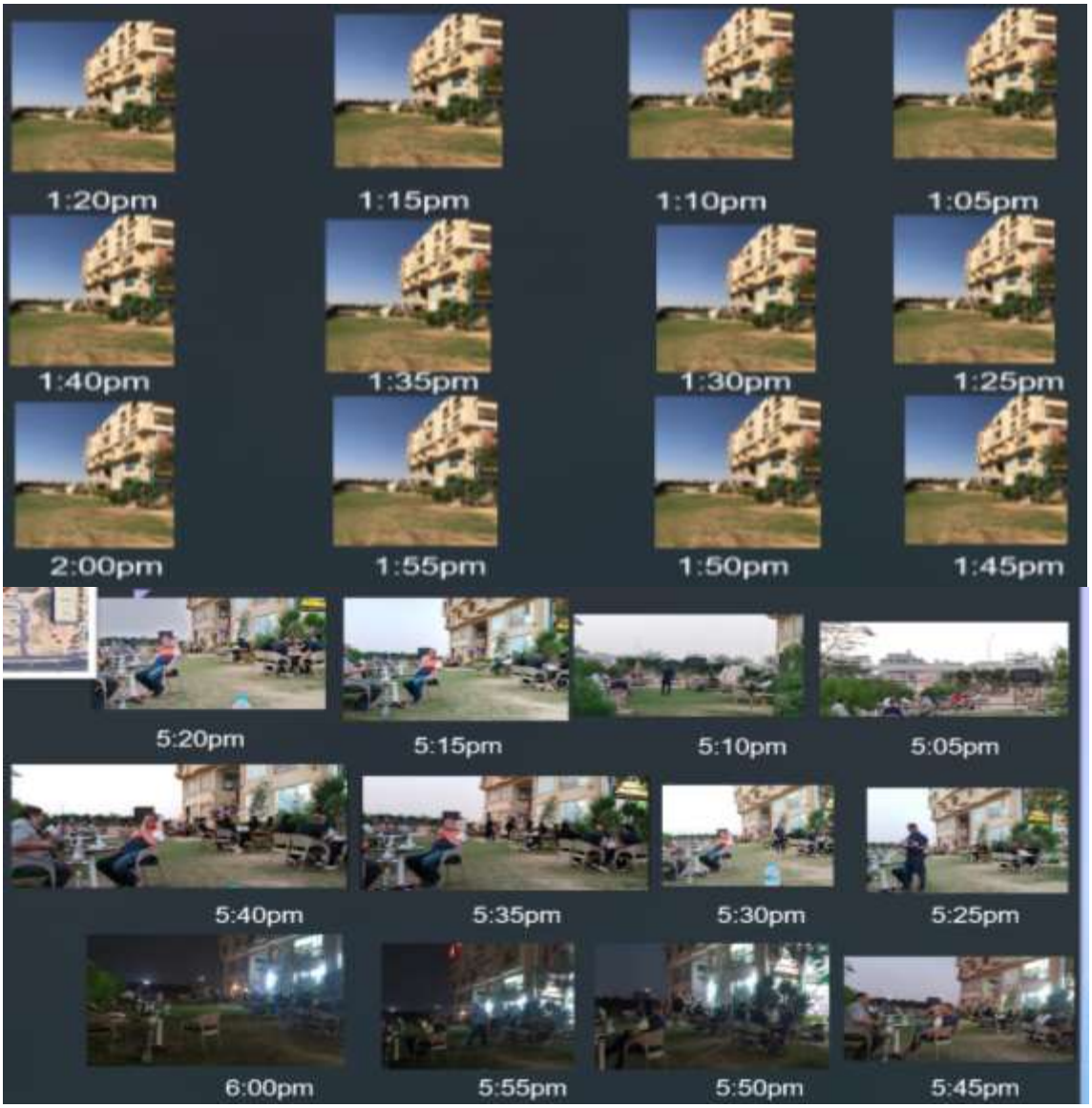
- Activity peaks in the **afternoon**, coinciding with **employee movement and the return from educational institutions**.
- The **commercial aspect is dominant** throughout the day.

Figure 26 map for plaza 5 at 6Th. Of October central axis



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- Figure (27): A series of images illustrating people's activities during different times of the day in the 5Th. urban space at 6Th. Of October central axis

- **Plaza 6:**
  - Characterized by sitting and shopping activities, benefiting from its proximity to shops and shopping centers.
  - Activity level: approximately good throughout the day.

Figure 28 map for plaza 6 at 6Th. Of October central axis

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- Figure (29): A series of images illustrating people's activities during different times of the day in the 6Th. urban space at 6Th. Of October central axis

4-2-The content of the images was extracted approximately every hour using artificial intelligence applications, with each space analyzed separately. Each age or social group was counted and classified, and the results are presented in the following table.

Table 2 presents the extraction of data on people's activities in public spaces in the Fifth Settlement, based on images captured at each site using artificial intelligence applications.

activities	passing through		standing		sitting		eating or drinking		reading		sing mobile phone		playing		watching		shopping	
time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
zone 1 October 10-12 A	90	110	66	71	130	110	180	120	11	22	20	11	0	0	12	12	25	44
12-02 P	85	92	71	78	133	115	140	101	18	34	21	13	0	0	7	9	23	34
02-04 P	88	105	77	81	110	99	100	87	14	42	18	16	0	0	14	19	12	25
04-06 P	35	44	44	51	91	80	88	60	14	34	19	12	0	0	8	7	16	22
06-08 P	22	24	23	31	100	9	75	53	6	18	9	7	0	0	6	8	18	28
08-10 P	18	22	19	12	140	120	72	60	2	8	12	8	0	0	11	15	7	11
total	338	397	300	324	704	533	655	481	65	158	99	67	0	0	58	70	101	164
activities	sing through		standing		sitting		eating or drinking		reading		using mobile phones		playing		watching		shopping	
time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
zone2 October 10-12 A	22	7	24	12	44	66	22	0	1	0	11	0	0	0	2	3	6	2
12-02 P	11	3	22	10	42	56	24	4	0	1	9	1	0	0	1	1	8	1
02-04 P	18	4	19	7	37	44	23	6	1	0	10	2	0	0	1	2	4	1
04-06 P	12	9	17	7	24	38	25	8	1	0	5	3	0	0	2	1	2	4
06-08 P	4	9	11	6	28	36	21	2	0	0	6	4	0	0	2	0	1	6
08-10 P	8	6	12	6	24	38	28	7	0	0	2	4	1	2	1	0	1	8
total	75	38	105	48	199	278	143	27	3	1	43	14	1	2	9	7	22	22
activities	sing through		standing		sitting		eating or drinking		reading		using mobile phones		playing		watching		shopping	
time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
zone 3 October 10-12 A	42	36	10	8	40	23	48	23	3	24	6	4	0	0	2	1	18	21
12-02 P	48	40	8	6	33	20	44	20	2	21	5	3	0	0	1	0	15	22
02-04 P	42	33	7	5	32	20	40	19	1	18	5	2	0	0	0	0	12	23
04-06 P	38	32	11	6	30	24	42	18	1	17	4	1	0	0	0	0	11	24
06-08 P	48	30	10	11	40	25	47	20	0	20	5	0	0	0	1	0	12	22
08-10 P	51	39	12	11	44	27	49	22	2	22	6	1	0	0	0	0	14	25
total	269	210	58	47	219	139	270	122	9	122	31	11	0	0	4	1	82	137
activities	sing through		standing		sitting		eating or drinking		reading		using mobile phones		playing		watching		shopping	
time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
zone 4 October 10-12 A	46	54	10	8	56	22	56	38	1	1	2	2	0	1	1	1	8	14
12-02 P	44	55	8	10	60	33	62	40	8	3	4	3	2	0	17	8	11	19
02-04 P	49	49	15	12	81	46	71	45	55	8	6	4	3	0	41	14	19	26
04-06 P	55	44	26	18	87	77	74	52	70	55	12	8	1	0	63	22	25	39
06-08 P	70	52	51	21	110	90	85	59	80	40	15	6	1	0	81	35	33	40
08-10 P	80	56	60	30	225	100	101	67	95	46	17	8	2	1	110	45	47	68
total	344	310	170	99	619	368	449	301	309	153	56	31	9	2	313	125	143	206
activities	sing through		standing		sitting		eating or drinking		reading		using mobile phones		playing		watching		shopping	
time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
zone 5 October 10-12 A	120	90	35	40	8	2	1	2	13	15	2	1	0	0	3	8	33	45
12-02 P	100	88	33	42	52	41	8	18	18	13	4	3	1	0	1	5	26	42
02-04 P	110	82	37	33	81	100	45	22	16	11	8	2	1	0	1	3	28	43
04-06 P	120	90	40	30	100	144	144	110	18	10	8	7	1	1	2	1	28	44
06-08 P	81	11	33	12	42	20	102	65	21	6	7	3	0	0	32	11	35	52
08-10 P	66	10	20	10	20	4	45	20	30	4	6	3	1	1	65	20	38	57
total	597	371	198	167	303	311	345	237	116	59	35	19	4	2	104	48	188	283
activities	sing through		standing		sitting		eating or drinking		reading		using mobile phones		playing		watching		shopping	
time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
zone 6 October 10-12 A	8	6	25	22	110	35	4	8	1	1	12	1	0	1	10	11	20	34
12-02 P	12	4	23	11	103	34	4	7	3	0	10	0	0	2	11	13	24	32
02-04 P	18	11	22	18	95	41	5	4	11	0	13	0	0	0	5	11	23	30
04-06 P	22	9	20	7	55	21	11	5	7	0	10	0	0	0	4	9	20	31
06-08 P	39	8	28	11	43	32	7	8	12	0	6	0	0	0	22	4	15	36
08-10 P	50	10	25	7	50	23	8	6	16	0	8	1	0	0	35	2	12	33
total	149	48	143	76	456	186	39	38	50	1	59	2	0	3	87	50	114	196
average	295.33	229	162.33	126.83	416.67	302.5	316.83	201	92	82.333	53.833	24	2.3333	1.5	95.833	50.167	108.33	168
l no. of pe	1772	1374	974	761	2500	1815	1901	1206	552	494	323	144	14	9	575	301	650	1008

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4-3- A questionnaire was conducted in each urban space with 100 users to assess the level of user
engagement with the space, as well as their evaluation of its activity, integration, and ability to meet their needs. The collected survey data for the various spaces was compiled for analysis, as shown in Table (3)
table No. 3 illustrates the evaluation of space activity, integration, and ability to meet people needs

questionnaire for 100 person attended on space ..... (open space performance)								
	Item of evaluation:							
sociability	Female Presence (%)							
	Diversity of Age Groups (%)							
	Active Social Activities (%)							
	Overall Life Quality Score (%)							
Uses & Activities	Sitting Availability (%)							
	Daytime Distribution (10am-4pm) (%)							
	Users Attraction (%)							
		5	4	3	2	1		
Access & Linkage	**Ease of movement to and within the space**	very easy	Easy	Moderately	Slightly	Not at all		
	was it easy to connect the place and move within?						0	0 0.00%
	Level changes and accessibility: are elders and disabled	very easy	Easy	Moderately	Slightly	Not at all	0	
	people move easily						0	0 0.00%
	Connectivity : is the place connected good with other places?	Extremely	Very	Moderately	Slightly	Not at all	0	
	Is it appear clearly from other places?						0	0 0.00%
Comfort & Visual Image	**Safety:** The presence of security personnel monitoring the space. Is there sufficient security persons?	very safe	safe	Moderately	Slightly	Not at all	0	
							0	0 0.00%
	The level of safety for users crossing vehicular roads. Is it safe to cross the road ,specially for children and elders?	very safe	safe	Moderately	Slightly	Not at all	0	
							0	0 0.00%
	The occurrence of any security issues within the space. Have you encounterd criminal events in the place?	not at all	Slightly	rarely	sometimes	usually	0	
							0	0 0.00%
	Adaptation to environmental factors: The availability of shaded areas and water features to regulate the climate.do you find the needed shades and water features to improve the place climate	Extremely	Very	Moderately	Slightly	Not at all	0	
							0	
	The presence of green elements. do you feel comfort about green areas of the space ?	Extremely	Very	Moderately	Slightly	Not at all	0	
							0	
	• Cleanliness: o The availability and proper placement of sufficient trashcans. is the space clean enough?	Extremely	Very	Moderately	Slightly	Not at all	0	
							0	
	is the urban space and its surrounding buildings constantly maintained and improved and does it have a comfortable and clean appearance?	Extremely	Very	Moderately	Slightly	Not at all	0	
	The visual harmony and contribution of surrounding buildings to the space.is the image of the space and surrounding buildings is comfortable?	Extremely	Very	Moderately	Slightly	Not at all	0	
Economic Aspects:	**Rental prices for shops, offices, and residential units around the space, and whether :how much the rent value for 1m2?**	very expensive	expensive	Moderately	cheap	very cheap	0	0 #DIV/0!
	Utilization of street vendor activities. is there street vendors? Legal ,illegal ?	so many	many	Moderately	Slightly	no vendors		
	• The value of land and real estate surrounding the urban space. How much the value of 1 m2 of land or built up area	very expensive	expensive	Moderately	cheap	very cheap	0	0 #DIV/0!
	• Tourist footfall in the space and job opportunities it provides.(surveying)							

Stakeholder Interviews and Student Feedback Phase:
Through direct meetings between students and the officials responsible for managing each space, a different type of questionnaire was conducted to gather the perspectives of the observing students themselves. Organized into groups of 25, the students provided their impressions regarding the management of each space—covering aspects such as design,

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construction, maintenance, supervision, development, cleanliness, and other criteria that help assess the quality and effectiveness of space management. The results are presented in Tables (4).

Table No. 4 criteria to evaluate the role of space managing.

	Location											
	1	2	3	4	5	6	1	2	3	4	5	6
Item of assesment for mnaging perrmance												
The design of the space, including the team involved in its conceptualization.												
Compliance with construction standards.												
Quality of finishes and overall execution.												
Suitability of materials used for the space's activities and their ability to withstand environmental conditions and usage patterns.												
Methods of cleaning and maintenance.												
Availability of security and monitoring systems.												
Organization of events, celebrations, and recreational activities at the site.												
Maintenance of plant elements and adherence to a defined care schedule.												
Accessibility, including parking availability, approaches to the space, and movement within it.												
Continuous observation and feedback from users to identify service gaps and opportunities for improvement.												
Incorporation of investment opportunities and the enhancement of the space to meet user needs.												
Hosting and publicizing a schedule of events to encourage user engagement and enhance the value of the space.												

The data obtained through the analysis of photos content was classified to determine the proportion of women attendance in the space (table No. 5) , as this percentage serves as a significant social indicator related to the perceived safety and security of the urban space. Additionally, the age groups of the space users were categorized, (table No 7) which indicates the ability of the urban space to attract a diverse range of community groups, thereby fulfilling the needs of all social segments.

Table No.5 the ratio of women in the space

city	zone	total male	total F.	Total
New Cairo	CFC1	1527	1290	2817
	CFC2	817	690	1507
	CFC3	9719	6878	16597
	DT4	5539	5026	10565
	DT5	9268	9072	18340
	DT6	6058	6858	12916
6th. of October	Oct.1	2320	2194	4514
	Oct.2	600	437	1037
	Oct.3	942	789	1731
	Oct.4	2412	1595	4007
	Oct.5	1890	1497	3387
	Oct.6	1097	600	1697

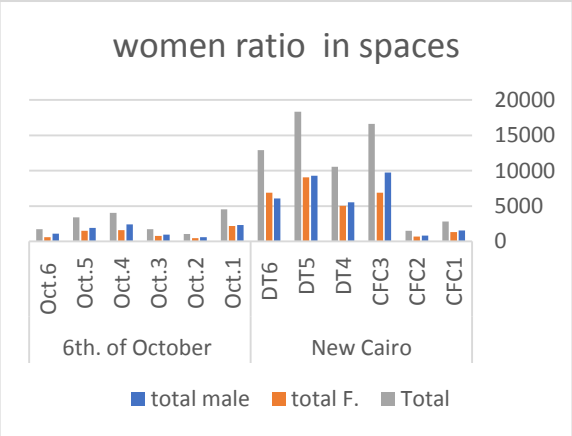

Fig. 30 women ratio in spaces

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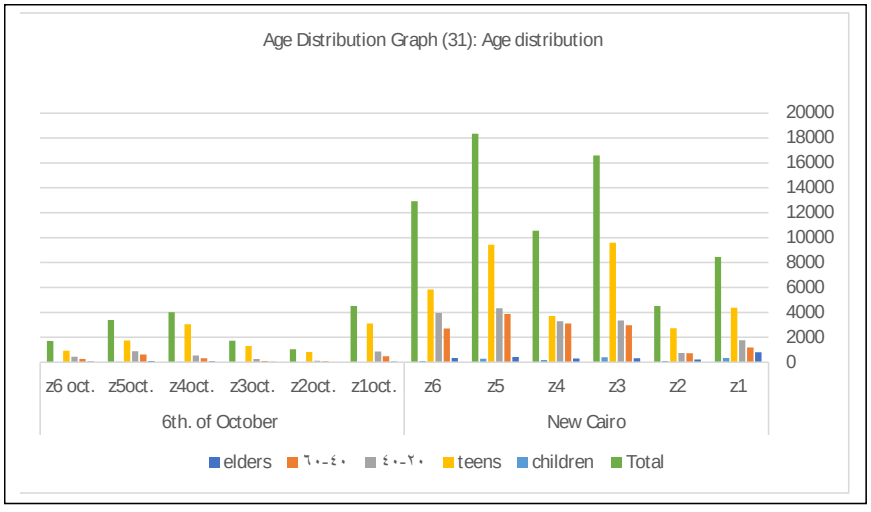
Table No. 6 the distribution of different users ages during the day

NEW CAIRO								6th of OCTOBER							
		age classification					Total			age classification					Total
Zone	time	elders	40-60	20-40	teens	children		Zone	time	elders	40-60	20-40	teens	children	
1 Cairo festival	10-12 AM	55	82	105	169	22	433	zone 1 October	10-12 AM	9	112	210	698	5	1034
	12-02 PM	80	99	120	243	12	554		12-02 PM	11	103	230	622	8	974
	02-04 PM	88	103	132	248	10	581		02-04 PM	8	98	210	585	6	907
	04-06 PM	70	111	122	156	36	495		04-06 PM	7	76	110	429	3	625
	06-08 PM	120	110	120	107	42	499		06-08 PM	5	42	56	332	2	437
	08-10 PM	30	70	100	44	11	255		08-10 PM	8	40	43	445	1	537
	total	443	575	699	967	133	2817		total	48	471	859	3111	25	4514
2 Cairo festival	10-12 AM	12	61	66	162	5	306	zone2 October	10-12 AM	1	26	24	170	1	222
	12-02 PM	15	50	49	196	9	319		12-02 PM	1	11	23	158	1	194
	02-04 PM	19	40	35	146	4	244		02-04 PM	2	10	19	147	1	179
	04-06 PM	22	44	46	213	8	333		04-06 PM	3	10	22	122	1	158
	06-08 PM	4	25	27	121	6	183		06-08 PM	1	9	18	107	1	136
	08-10 PM	2	21	22	74	3	122		08-10 PM	2	12	18	112	4	148
	total	74	241	245	912	35	1507		total	10	78	124	816	9	1037
3 Cairo festival	10-12 AM	35	450	370	1800	48	2703	zone 3 October	10-12 AM	4	13	23	262	7	309
	12-02 PM	45	520	415	2299	52	3331		12-02 PM	5	15	45	220	3	288
	02-04 PM	55	453	512	1612	48	2680		02-04 PM	6	14	47	186	6	259
	04-06 PM	55	485	710	1395	101	2746		04-06 PM	9	16	41	188	5	259
	06-08 PM	62	542	752	1681	151	3188		06-08 PM	7	11	49	221	3	291
	08-10 PM	41	423	524	957	4	1949		08-10 PM	10	18	62	234	1	325
	total	293	2873	3283	9744	404	16597		total	41	87	267	1311	25	1731
4 downtown	10-12 AM	71	521	571	655	23	1841	zone 4 October	10-12 AM	1	18	53	247	2	321
	12-02 PM	55	542	582	775	41	1995		12-02 PM	4	15	65	300	3	387
	02-04 PM	58	624	584	688	35	1989		02-04 PM	11	42	71	414	6	544
	04-06 PM	49	453	612	694	35	1843		04-06 PM	18	72	105	527	6	728
	06-08 PM	41	546	481	421	23	1512		06-08 PM	21	81	114	647	6	869
	08-10 PM	33	412	451	471	18	1385		08-10 PM	22	89	121	921	5	1158
	total	307	3098	3281	3704	175	10565		total	77	317	529	3056	28	4007
5 downtown	10-12 AM	77	845	740	1587	21	3270	zone 5 October	10-12 AM	15	103	158	139	3	418
	12-02 PM	78	753	614	1701	25	3171		12-02 PM	17	96	140	231	11	495
	02-04 PM	68	685	714	1720	81	3268		02-04 PM	21	106	151	339	6	623
	04-06 PM	71	589	698	1335	92	2785		04-06 PM	22	125	172	573	6	898
	06-08 PM	67	488	751	1567	22	2895		06-08 PM	16	101	150	262	4	533
	08-10 PM	61	514	810	1527	39	2951		08-10 PM	11	96	105	206	2	420
	total	422	3874	4327	9437	280	18340		total	102	627	876	1750	32	3387
6 downtown	10-12 AM	64	395	415	1295	11	2180	zone 6 October	10-12 AM	8	45	65	188	3	309
	12-02 PM	71	486	510	1137	15	2219		12-02 PM	11	47	81	152	2	293
	02-04 PM	63	453	816	789	31	2152		02-04 PM	15	51	88	150	3	307
	04-06 PM	52	395	689	747	11	1894		04-06 PM	11	42	73	101	4	231
	06-08 PM	48	562	710	810	12	2142		06-08 PM	9	35	57	167	3	271
	08-10 PM	41	412	810	1057	9	2329		08-10 PM	10	29	74	169	4	286
	total	339	2703	3950	5835	89	12916		total	64	249	438	927	19	1697



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Furthermore, the diversity and intensity of activities practiced throughout the day were analyzed. The ability of the space to attract users all the day reflects its increased appeal, table 7.

According to the space performance assessment criteria were determined before this tables achieved through the variety of events, activities, and occasions taking place. The proportion of engaged users compared to those merely passing through the space without interacting with its

activities were also calculated. This ratio reflects users' interaction with the space and its capacity to meet their needs, entertain them, and contribute to their satisfaction and happiness within the space. High levels of such interaction can lead to a desire for repeated visits and the transformation of first-time users into frequent visitors.

4-4-By utilizing an artificial intelligence application—specifically, the Perplexity app—to analyze the results of the four tables, which pertain to the percentages of female presence in spaces, the distribution of users' age groups, the density distribution of activities, and the distribution of activities throughout the hours of the day (Tables 5-6-7-8), the following metrics were requested to be determined (as percentages): the proportion of female participation in each space, the diversity of users' age groups, the most densely engaged activities, and the overall level of quality of life within the urban space. Additionally, the availability of seating areas, the achievement of optimal user distribution balance throughout the day, and the overall capacity of the space to attract users were assessed. Through the analysis of these data, precise indicators were provided, as shown in Table (90).

Table 7 Distribution of Activities in Public Urban Spaces Throughout the Day

Distribution of Activities in Public Urban Spaces Throughout the Day																				
city	zone	activities	passing through		standing		sitting		ting or drinki		reading		ng mobile pho		playing		watching		shopping	
		time	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female	male	female
New Cairo	CFC1	full time	229	231	210	116	225	102	132	164	1	0	159	96	18	17	86	72	467	492
	CFC2	full time	263	303	146	169	258	64	37	26	4	11	15	52	13	20	43	20	38	25
	CFC3	full time	279	283	3050	1365	4500	3850	465	360	0	0	1125	625	60	65	240	330	0	0
	DT1	full time	474	386	1350	1240	1035	880	1250	1155	20	5	400	260	20	15	400	340	590	745
	DT2	full time	628	567	1385	1175	2275	2355	3300	3345	30	10	320	215	120	115	330	245	880	1045
	DT3	full time	33	23	100	80	2360	2615	3160	3730	0	0	170	195	15	10	120	75	100	130
6th. of October	6OCT.1	full time	338	397	300	324	704	533	655	481	65	158	99	67	0	0	58	70	101	164
	6OCT.2	full time	75	38	105	48	199	278	143	27	3	1	43	14	1	2	9	7	22	22
	6OCT.3	full time	269	210	58	47	219	139	270	122	9	122	31	11	0	0	4	1	82	137
	6OCT.4	full time	229	231	210	116	225	102	132	164	1	0	159	96	18	17	86	72	467	492
	6OCT.5	full time	263	303	146	169	258	64	37	26	4	11	15	52	13	20	43	20	38	25
	6OCT.6	full time	279	283	3050	1365	4500	3850	465	360	0	0	1125	625	60	65	240	330	0	0

Table 8 Total Number of Users for All Activities Between 10 a.m. and 10 p.m. in Public Urban Spaces

Total Number of Users for All Activities Between 10 a.m. and 10 p.m. in Public Urban Spaces												
time	New Cairo						6th. of October					
	CFC1	CFC2	CFC3	DT1	DT2	DT3	6OCT.1	6OCT.2	6OCT.3	6OCT.4	6OCT.5	6OCT.6
10-12 AM	433	306	2703	1841	3270	2180	1034	222	309	321	418	309
12-02 PM	554	319	3331	1995	3171	2219	974	194	288	387	495	293
02-04 PM	581	244	2680	1989	3268	2152	907	179	259	544	623	307
04-06 PM	495	333	2746	1843	2785	1894	625	158	259	728	898	231
06-08 PM	499	183	3188	1512	2895	2142	437	136	291	869	533	271
08-10 PM	255	122	1949	1385	2951	2329	537	148	325	1158	420	286

Table 9 social activities analysis for the 12 place as a mathmatical matrix by Perplixity App.(AI)

Social Activities	New Cairo						6Th. October					
	CFC1	CFC2	CFC3	DT1	DT2	DT3	6OCT.1	6OCT.2	6OCT.3	6OCT.4	6OCT.5	6OCT.6
Female Presence (%)	69%	69%	62%	71%	74%	80%	49%	42%	46%	40%	44%	35%

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Diversity of Age Groups (%)	51%	44%	52%	49%	42%	46%	31%	20%	29%	28%	30%	29%
Active Social Activities (%)	83%	70%	91%	82%	89%	76%	55%	46%	51%	59%	57%	48%
Overall Life Quality Score (%)	83%	74%	86%	80%	81%	81%	60%	46%	52%	58%	51%	46%
Sitting Availability (%)	35%	32%	42%	27%	30%	28%	27%	38%	38%	33%	26%	29%
Daytime Distribution (10am-4pm) (%)	98%	98%	95%	97%	97%	98%	65%	65%	70%	66%	70%	68%
Users Attraction (%)	13%	7%	75%	48%	83%	59%	28%	6%	11%	25%	21%	10%

data Analysis:

The output of the questionnaire completed by users of the various urban spaces were analyzed using a rating form in which each evaluation criterion was scored on a scale from highest to lowest (5–4–3–2–1). The number of respondents selecting each score was multiplied accordingly (e.g., number of highest ratings × 5, next highest × 4, and so on). The total score was then summed and divided by 500 to calculate a percentage representing the overall rating for each criterion.

Table No. 10 analysis of the performance of 3 s paces of (Cairo festival city- new Cairo)

		Cairo Festival 1.								Cairo Festival 2.								Cairo Festival 3.							
sociability	Female Presence (%)							69%							69%							62%			
	Diversity of Age Groups (%)							51%							44%							52%			
	Active Social Activities (%)							83%							70%							91%			
	Overall Life Quality Score (%)							83%							74%							86%			
Uses & Activities	Sitting Availability (%)							35%							32%							42%			
	Daytime Distribution (10am-4pm) (%)							98%							98%							95%			
	Users Attraction (%)							13%							7%							75%			
		5	4	3	2	1				5	4	3	2	1				5	4	3	2	1			
Accessability	Moveability	79	9	8	3	1	462	92.4%		78	11	7	4	0	463	92.6%		59	21	11	6	3	427	85.40%	
	Disabiliy Access	71	19	6	3	1	456	91.2%	92%	73	6	11	8	2	440	88.0%	91%	81	11	5	2	1	469	93.80%	91%
	Connectivity	81	9	7	2	1	467	93.4%		73	18	5	3	1	459	91.8%		83	9	4	3	1	470	94.00%	
Comfort & Visual Image	Safety	90	4	4	2	0	482	96.4%		82	17	1	0	0	481	96.2%		90	7	3	0	0	487	97.40%	
	Road Safety	95	2	2	1	0	491	98.2%		91	7	2	0	0	489	97.8%		82	8	4	4	2	464	92.80%	
	Crime Witnessed	97	2	1	0	0	496	99.2%		91	8	1	0	0	490	98.0%		99	1	0	0	0	499	99.80%	
	Adaptation to Weather	82	9	7	2	0	471	94.2%		80	11	6	2	1	467	93.4%		84	9	5	2	0	475	95.00%	
	Green Spaces	78	12	6	3	1	463	92.6%	95%	81	11	6	2	0	471	94.2%	96%	86	11	3	0	0	483	96.60%	96%
	Cleanliness	82	9	5	3	1	468	93.6%		92	8	0	0	0	492	98.4%		93	4	2	1	0	489	97.80%	
	Maintenace	77	14	6	2	1	464	92.8%		95	3	1	1	0	492	98.4%		89	8	3	0	0	486	97.20%	
	Apperance	75	15	7	2	1	461	92.2%		90	2	4	3	1	477	95.4%		85	8	4	2	1	474	94.80%	
Finances	Rental Prices	79	18	3	0	0	476	95.2%		92	8	0	0	0	492	98.4%		94	5	1	0	0	493	98.60%	
	Street Vendors	8	2	1	0	89	140	28.0%	73%	28	21	18	22	11	333	66.6%	88%	8	13	22	21	36	236	47.20%	81%
	Land Value	79	18	3	0	0	476	95.2%		96	3	1	0	0	495	99.0%		91	8	1	0	0	490	98.00%	
	total avarage							80%								81%								85%	

Table No. 11 analysis of the performance of 3 spaces of (Downtown - new Cairo)

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		Cairo Festival 1.								Cairo Festival 2.								Cairo Festival 3.							
sociability	Female Presence (%)							69%								69%							62%		
	Diversity of Age Groups (%)							51%								44%							52%		
	Active Social Activities (%)							83%								70%							91%		
	Overall Life Quality Score (%)							83%								74%							86%		
Uses & Activities	Sitting Availability (%)							35%								32%							42%		
	Daytime Distribution (10am-4pm) (%)							98%								98%							95%		
	Users Attraction (%)							13%								7%							75%		
		5	4	3	2	1				5	4	3	2	1				5	4	3	2	1			
Accessability	Moveability	79	9	8	3	1	462	92.4%	92%	78	11	7	4	0	463	92.6%	91%	59	21	11	6	3	427	85.40%	91%
	Disabiliy Access	71	19	6	3	1	456	91.2%		73	6	11	8	2	440	88.0%		81	11	5	2	1	469	93.80%	
	Connectivity	81	9	7	2	1	467	93.4%		73	18	5	3	1	459	91.8%		83	9	4	3	1	470	94.00%	
Comfort & Visual Image	Safety	90	4	4	2	0	482	96.4%	95%	82	17	1	0	0	481	96.2%	96%	90	7	3	0	0	487	97.40%	96%
	Road Safety	95	2	2	1	0	491	98.2%		91	7	2	0	0	489	97.8%		82	8	4	4	2	464	92.80%	
	Crime Witnessed	97	2	1	0	0	496	99.2%		91	8	1	0	0	490	98.0%		99	1	0	0	0	499	99.80%	
	Adaptation to Weather	82	9	7	2	0	471	94.2%		80	11	6	2	1	467	93.4%		84	9	5	2	0	475	95.00%	
	Green Spaces	78	12	6	3	1	463	92.6%		81	11	6	2	0	471	94.2%		86	11	3	0	0	483	96.60%	
	Cleanliness	82	9	5	3	1	468	93.6%		92	8	0	0	0	492	98.4%		93	4	2	1	0	489	97.80%	
	Maintenace	77	14	6	2	1	464	92.8%		95	3	1	1	0	492	98.4%		89	8	3	0	0	486	97.20%	
	Apperance	75	15	7	2	1	461	92.2%		90	2	4	3	1	477	95.4%		85	8	4	2	1	474	94.80%	
Finances	Rental Prices	79	18	3	0	0	476	95.2%	73%	92	8	0	0	0	492	98.4%	88%	94	5	1	0	0	493	98.60%	81%
	Street Vendors	8	2	1	0	89	140	28.0%		28	21	18	22	11	333	66.6%		8	13	22	21	36	236	47.20%	
	Land Value	79	18	3	0	0	476	95.2%		96	3	1	0	0	495	99.0%		91	8	1	0	0	490	98.00%	
total avarage								80%								81%								85%	

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Table No. 12 analysis of the performance of 3 spaces of (central axis 1-2-3 – 6th.october)

		October 1								October 2								October 3							
sociability	Female Presence (%)							49%								42%								46%	
	Diversity of Age Groups							31%								20%								29%	
	Active Social Activities (%)							55%								46%								51%	
Uses & Activities	Overall Life Quality Score							60%								46%								52%	
	Sitting Availability							27%								38%								38%	
	Daytime Distribution							65%								65%								70%	
	Users Attraction							28%								6%								11%	
		5	4	3	2	1				5	4	3	2	1				5	4	3	2	1			
Accessability	Moveability	**53**	**23**	**12**	**7**	**5**	412	82.40%	87%	**71**	**18**	**7**	**3**	**1**	455	91.00%	91%	**44**	**22**	**12**	**12**	**10**	378	75.60%	75%
	Disabiliy Access	58	25	9	5	3	430	86.00%		**59**	**23**	**11**	**5**	**2**	432	86.40%		44	21	18	11	6	386	77.20%	
	Connectivity	76	12	8	3	1	459	91.80%		**81**	**12**	**5**	**1**	**1**	471	94.20%		34	23	22	16	5	365	73.00%	
Comfort & Visual Image	Safety	31	25	24	12	8	359	71.80%	65%	**57**	**16**	**11**	**11**	**5**	409	81.80%	79%	46	22	14	11	7	389	77.80%	78%
	Road Safety	51	25	12	9	3	412	82.40%		**58**	**23**	**14**	**3**	**2**	432	86.40%		51	22	11	14	2	406	81.20%	
	Crime Witnessed	75	7	10	5	3	446	89.20%		**54**	**22**	**11**	**11**	**2**	415	83.00%		47	23	13	12	5	395	79.00%	
	Adaptation to Weather	0	25	10	8	4	150	30.00%		**34**	**25**	**22**	**14**	**5**	369	73.80%		41	22	14	11	12	369	73.80%	
	Green Spaces	0	24	21	17	15	208	41.60%		**47**	**19**	**17**	**11**	**6**	390	78.00%		39	22	21	12	6	376	75.20%	
	Cleanliness	16	31	20	18	15	315	63.00%		**49**	**28**	**11**	**7**	**5**	409	81.80%		43	22	18	14	3	388	77.60%	
	Maintenace	14	29	22	20	15	307	61.40%		**32**	**26**	**22**	**11**	**9**	361	72.20%		15	33	22	18	12	321	64.20%	
	Apperance	50	18	21	8	3	404	80.80%		**32**	**30**	**14**	**16**	**8**	362	72.40%		92	5	2	1	0	488	97.60%	
Finances	Rental Prices	65	23	12	0	0	453	90.60%	80%	**74**	**22**	**2**	**1**	**0**	466	93.20%	86%	98	2	0	0	0	498	99.60%	86%
	Street Vendors	22	40	35	3	0	381	76.20%		**18**	**44**	**22**	**14**	**2**	362	72.40%		0	43	22	15	20	288	57.60%	
	Land Value	17	38	40	5	0	367	73.40%		**81**	**7**	**11**	**1**	**0**	468	93.60%		98	1	1	0	0	497	99.40%	
total avarage								64%								68%								67%	

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Table No. 13 analysis of the performance of 3 spaces of (central axis 4-5-6 – 6th.october)

		October 4								October 5								October 6							
sociability	Female Presence							40%								44%								35%	
	Diversity of Age Groups							28%								30%								29%	
	Active Social Activities							59%								57%								48%	
Uses & Activities	Overall Life Quality Score							58%								51%								46%	
	Sitting Availability)							33%								26%								29%	
	Daytime Distribution							66%								70%								68%	
	Users Attraction							25%								21%								10%	
		5	4	3	2	1				5	4	3	2	1				5	4	3	2	1			
Accessability	Moveability	66	24	5	3	2	449	89.80%	87%	42	32	12	9	5	397	79.40%	61%	52	32	12	3	1	431	86.20%	85%
	Disabiliy Access	52	23	15	7	3	414	82.80%		10	12	19	29	30	243	48.60%		41	32	22	3	2	407	81.40%	
	Connectivity	62	21	11	5	1	438	87.60%		22	12	12	22	32	270	54.00%		57	32	8	2	1	442	88.40%	
Comfort & Visual Image	Safety	32	21	22	18	7	353	70.60%	75%	2	8	22	35	33	211	42.20%	70%	71	22	6	1	0	463	92.60%	85%
	Road Safety	57	23	11	7	2	426	85.20%		11	13	18	29	29	248	49.60%		45	35	12	6	2	415	83.00%	
	Crime Witnessed	31	18	22	18	11	340	68.00%		22	18	24	25	11	315	63.00%		75	18	4	3	0	465	93.00%	
	Adaptation to Weather	12	23	25	18	22	285	57.00%		22	18	12	25	23	291	58.20%		52	22	18	6	2	416	83.20%	
	Green Spaces	43	23	19	11	4	390	78.00%		71	21	8	0	0	463	92.60%		43	22	21	9	5	389	77.80%	
	Cleanliness	62	22	9	6	1	438	87.60%		54	38	7	1	0	445	89.00%		54	33	11	2	0	439	87.80%	
	Maintenace	42	31	12	9	6	394	78.80%		41	33	18	8	0	407	81.40%		41	32	22	4	1	408	81.60%	
	Apperance	42	22	17	8	11	376	75.20%		41	33	22	2	2	409	81.80%		43	29	14	11	3	398	79.60%	
Finances	Rental Prices	51	40	9	0	0	442	88.40%	87%	75	14	11	0	0	464	92.80%	76%	84	9	6	1	0	476	95.20%	81%
	Street Vendors	49	33	8	8	2	419	83.80%		11	8	11	12	58	202	40.40%		2	22	35	19	22	263	52.60%	
	Land Value	55	40	3	1	1	447	89.40%		84	11	5	0	0	479	95.80%		78	18	3	1	0	473	94.60%	
total avarage								68%								60%								69%	

4-5- Assessment of Managing urban open spaces

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Stakeholder Interviews and Student Feedback Phase:

Through direct meetings between students and the officials responsible for managing each space, a different type of questionnaire was conducted to gather the perspectives of the observing students themselves. Organized into groups of 25, the students provided their

zone	Cairo Festival 1							Cairo Festival 2							Cairo Festival3							Down Town 1						
	5	4	3	2	1	p	%	5	4	3	2	1	p	%	5	4	3	2	1	p	%	5	4	3	2	1	p	%
design	19	2	1	2	1	111	89%	7	4	6	5	3	82	66%	18	6	1	0	0	117	94%	18	3	1	2	1	110	88%
construction	19	4	1	1	0	116	93%	12	2	3	4	4	89	71%	20	2	2	1	0	116	93%	23	2	0	0	0	123	98%
execution.	15	4	3	2	1	105	84%	9	3	6	4	3	86	69%	19	2	3	1	0	114	91%	13	4	5	2	1	101	81%
Suitability	6	10	1	5	3	86	69%	7	6	6	3	3	86	69%	12	8	4	0	1	105	84%	11	6	1	4	3	93	74%
cleaning	15	3	3	1	3	101	81%	8	4	3	6	4	81	65%	18	4	2	1	0	114	91%	16	3	2	1	3	103	82%
security	18	3	2	1	1	111	89%	8	4	5	5	3	84	67%	19	4	2	0	0	117	94%	18	3	2	1	1	111	89%
events,	18	2	3	1	1	110	88%	5	8	6	2	4	83	66%	15	9	1	0	0	114	91%	18	2	3	1	1	110	88%
Maintenance	18	3	3	1	0	113	90%	15	4	2	2	2	103	82%	18	4	2	1	0	114	91%	18	3	3	1	0	113	90%
parking	4	5	4	5	7	69	55%	19	3	1	1	1	113	90%	12	5	6	2	0	102	82%	5	3	4	5	9	68	54%
observation	6	4	5	6	4	77	62%	8	5	3	4	5	82	66%	18	5	1	1	0	115	92%	6	5	5	6	3	80	64%
investment	9	8	2	3	3	92	74%	9	3	5	5	3	85	68%	20	2	2	1	0	116	93%	11	6	2	2	4	93	74%
schedule	15	6	3	1	0	110	88%	7	5	5	4	4	82	66%	19	4	2	0	0	117	94%	14	4	3	2	2	101	81%
M .avarage							80%							70%							91%							80%

zone	Down Town 2							Down Town 3						
	5	4	3	2	1	p	%	5	4	3	2	1	p	%
design	22	2	1	0	0	121	97%	22	2	1	0	0	121	97%
construction	24	1	0	0	0	124	99%	18	4	1	2	0	113	90%
execution.	19	4	1	1	0	116	93%	16	3	3	3	0	107	86%
Suitability	21	3	1	0	0	120	96%	11	8	4	1	1	102	82%
cleaning	22	2	1	0	0	121	97%	18	4	2	1	0	114	91%
security	22	2	1	0	0	121	97%	17	5	2	0	1	112	90%
events,	18	2	3	1	1	110	88%	15	9	1	0	0	114	91%
Maintenance	18	3	3	1	0	113	90%	17	4	2	1	1	110	88%
parking	22	1	1	0	0	117	94%	12	5	6	2	0	102	82%
observation	21	2	1	1	0	118	94%	12	8	2	1	2	102	82%
investment	22	2	1	0	0	121	97%	19	2	2	1	1	112	90%
schedule	14	4	3	2	2	101	81%	13	6	4	1	1	104	83%
M .avarage							94%							88%

zone	h oct.1							6th oct.2							6th oct.3							6th oct.4						
	5	4	3	2	1	p	%	5	4	3	2	1	p	%	5	4	3	2	1	p	%	5	4	3	2	1	p	%
design	2	3	4	7	9	57	46%	3	3	4	7	7	60	48%	2	4	4	6	9	59	47%	6	3	4	7	5	73	58%
construction	2	3	4	8	8	58	46%	1	3	4	8	9	54	43%	3	4	4	8	6	65	52%	6	5	4	5	5	77	62%
execution.	7	3	5	3	7	75	60%	8	3	4	3	7	77	62%	3	3	4	3	12	57	46%	8	3	6	3	5	81	65%
Suitability	7	6	6	3	3	86	69%	6	6	6	3	4	82	66%	4	2	4	9	6	64	51%	6	6	6	3	4	82	66%
cleaning	6	4	3	6	6	73	58%	6	4	3	6	6	73	58%	3	4	3	6	9	61	49%	6	4	3	5	7	72	58%
security	5	4	6	5	5	74	59%	5	4	6	5	5	74	59%	2	4	4	4	9	55	44%	5	4	6	5	5	74	59%
events,	5	8	6	2	4	83	66%	8	5	6	2	4	86	69%	5	8	6	2	4	83	66%	5	8	6	2	4	83	66%
Maintenance	6	6	2	5	6	76	61%	6	6	2	5	6	76	61%	6	4	3	5	7	72	58%	6	6	2	5	6	76	61%
parking	5	3	4	6	7	68	54%	4	3	4	7	7	65	52%	10	2	2	5	6	80	64%	9	3	4	5	4	83	66%
observation	3	4	3	7	8	62	50%	3	4	3	7	8	62	50%	0	3	1	1	20	37	30%	3	4	3	7	8	62	50%
investment	6	6	5	5	3	82	66%	4	3	4	6	8	64	51%	11	3	3	4	4	88	70%	7	6	5	5	2	86	69%
schedule	7	5	5	4	4	82	66%	2	5	5	4	9	62	50%	7	5	5	4	4	82	66%	9	5	5	3	3	89	71%
M .avarage							58%							56%							54%							63%

zone	6th oct.5							6th oct.6						
	5	4	3	2	1	p	%	5	4	3	2	1	p	%
design	2	4	4	6	9	59	47%	9	4	6	3	3	88	70%
construction	3	4	4	8	6	65	52%	10	4	3	4	4	87	70%
execution.	3	4	3	3	12	58	46%	8	6	7	3	1	92	74%
Suitability	4	2	4	6	9	61	49%	7	6	6	3	3	86	69%
cleaning	3	4	3	6	9	61	49%	13	6	3	3	0	104	83%
security	2	4	4	6	9	59	47%	9	7	5	1	3	93	74%
events,	5	8	6	2	4	83	66%	5	8	6	2	4	83	66%
Maintenance	6	4	3	5	7	72	58%	15	4	3	1	2	104	83%
parking	11	1	2	5	6	81	65%	19	5	1	0	0	118	94%
observation	0	1	1	1	22	31	25%	8	5	4	3	5	83	66%
investment	4	3	4	6	8	64	51%	9	3	5	5	3	85	68%
schedule	7	5	5	4	4	82	66%	11	5	5	4	0	98	78%
M .avarage							52%							75%

impressions regarding the management of each space—covering aspects such as design, construction, maintenance, supervision, development, cleanliness, and other criteria that help assess the quality and effectiveness of space management. The results are presented in Tables (6, 7).

Table No. 14 analysis the Questionnaire of surveyors for 25 p for managing role assessment

4-6-Findings:

By comparing the average percentage scores of each urban space's management performance with the corresponding performance scores of the spaces themselves, a strong correlation was observed (Table 17). This indicates that the management of urban spaces has a significant impact across the four key phases—design, construction, operation, and monitoring & development. In other words, spaces with a clearly defined management structure actively engaged in overseeing, developing, and supporting diverse activities tend to perform better overall, and at nearly the same proportional rate. This suggests that any underperformance in an urban space can often be traced back to shortcomings in management. Therefore, by enhancing the quality and consistency of management throughout all phases, the overall performance and vibrancy of the urban space can be significantly improved, allowing it to fulfill its intended social and functional roles more effectively.

Table 15: Result of the Comparison Between the Efficiency of Urban Space Management and the Output, Performance, Vitality, and Activity of the Space.

zone	Management Average	Production Average
Cairo Festival 1	80%	80%
Cairo Festival 2	70%	81%

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Cairo Festival3	91%	85%
Down Town 1	80%	81%
Down Town 2	94%	86%
Down Town 3	88%	85%
October 1	58%	64%
October 2	56%	68%
October 3	54%	67%
October 4	63%	68%
October 5	52%	60%
October 6	75%	69%

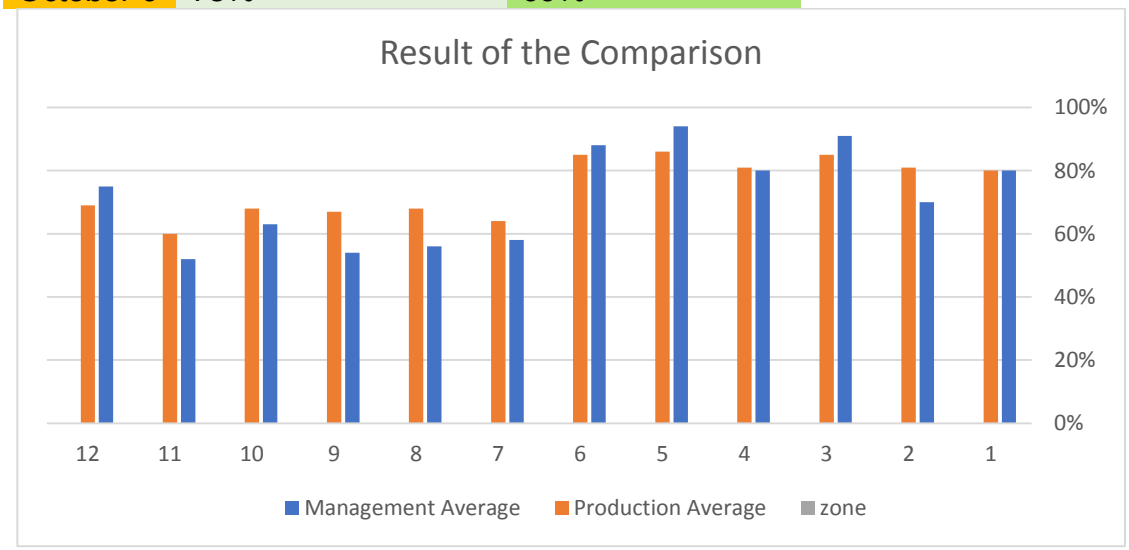

Fig. 33 Result of the Comparison Between the Efficiency of Urban Space Management and the Output, Performance, Vitality, and Activity of the Space.

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