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Daytime and Nighttime Image of Cities

* ¹ Dürriye Dilan Öner ² Prof. Dr. Esin Özlem Aktuğlu Aktan

¹ Department of Urban And Regional Planning, Faculty Of Architecture, Yildiz Technical University, Türkiye

² Department of Urban And Regional Planning, Faculty Of Architecture, Yildiz Technical University, Türkiye

E-mail ¹: dilaancelimlil@gmail.com E-mail ²: esinaktan@hotmail.com

Abstract

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Light is a fundamental element in shaping the perception of spaces and the urban image. The changes in how cities are perceived in the day and night are directly related to natural light and lighting. Therefore, the aim of this study is to explain the change of urban image concept in the day and night in the most frequently visited cities determined based on annual visitor numbers. The selected cities were analysed by reviewing posts on the Instagram platform, using hashtags, through a new, non-interactive Instagram account. The overall urban images of the first hundred posts reached through the hashtags were analyzed. Finally, the change in the city's image at different times of the day was examined through Instagram posts, with the change explained through concrete findings.

Keywords: Urban Image, Daytime Image, Nighttime Image, Instagram.

1. Introduction

The city may differ from each other depending on history, culture, geography, time and population profile. Regarding this differentiation between cities, Weber and Senet's statement "There cannot be a single expression that defines all cities, but there are expressions that define some cities and types" (Sennett, 1969). supports the fact that it is not possible to progress with a single definition or pattern in understanding cities (Amen, Afara, and Nia 2023; Aziz Amen 2022; Amen and Nia 2020). Not every city can be defined the same way, nor can every city look, be perceived and experienced the same. The city is perceived with the user's own experiences and mental filter, therefore the same city can be perceived differently by different users. The differentiation in the perception of cities is the basic element that forms the "City Image". The city image also changes depending on many elements, such as the definition of the city. The architecture and design of the city, the social interactions of the users, commercial activities, cultural activities and the reflections of these interactions on the city are among the elements that form the city image. However, another basic element is the concept of "time". The city image is shaped with its own dynamics in different time periods of the day. Daytime is the time period when the city's activity, liveliness and social interactions are intense. It provides important clues about the city's livability and social dynamics. The intensity of natural light clarifies environmental details and makes spaces more visible. The city's daytime image is directly related to the aesthetic and functional features that cities exhibit in daylight. It emerges when the elements that make up the city come together. The architectural structure, public areas, green areas and street designs of the city come to the fore with natural light, acting as a showcase reflecting the historical, cultural and physical characteristics of the city. Life and social interaction in cities change at night. Perceiving the city at night is related to the atmosphere it offers in the dark. Natural light at night can be thought of as moonlight. The inadequacy of natural light at night brings with it the concept of lighting. Urban lighting is one of the elements that define the city's silhouette and atmosphere at night; it shapes the perception of buildings, bridges and monuments. Thanks to lighting and shadows, architectural structures and public spaces offer a different aesthetic experience. Street and square lighting, nightclubs, restaurants and cultural events shape the city's nightlife and therefore its image. All these elements and the differences that emerge in the image of the city during the day and night constitute the subject of this study.

1.1. Aim of the Study

The city is observed, experienced and perceived by users in different ways at different times of the day. The concept that directly affects the user's relationship with the city and can be defined as the mental output of this relationship is the city image. As Şahin also emphasizes, individuals' perceptions of the city are shaped by their personal experiences, the films and series they watch, the books they read, the news they follow, and the temporary impressions they acquire. These elements make the city image formed in the minds of individuals a multi-layered and time-dependent phenomenon. This situation reveals the structure of urban spaces that varies in temporal context and the city image that is constantly reproduced depending on user interaction. While users evaluate the same urban space with a more functional and descriptive perspective during the day, they perceive the space as an aesthetic and experiential image with the atmosphere created by the light at night. This difference in perception has led to the main research question of this study: *What are the factors that differentiate the daytime and nighttime images of urban spaces?* Accordingly, this study aims to analyze the visual and experiential images of urban public spaces that vary depending on the time of day, by examining how these images are constructed and transformed through user-generated digital data. In line with this aim, the main hypothesis of the study is as follows: Differences in the perception of city image elements during the day and at night are due to architectural details, lighting, environmental conditions and spatial arrangements. Based on this hypothesis, the study—under the title “Urban Image at Daytime and Nighttime”—seeks to examine the effects of temporally differentiated urban images on user perception, and to explore how these differences may inform urban design and planning processes.

1.2. Scope of study

This study focuses on examining how the image of urban space changes between daytime and nighttime. The geographic boundaries of the cities selected from Euromonitor International's Report: Top 100 City Destinations Index 2023—namely Paris, New York, London, Singapore, and Hong Kong—constitute the sample area of the research. The analysis aims to investigate how urban spaces are experienced by users, how these experiences are reflected on digital platforms, and how such representations contribute to the construction of urban image. Based on a comprehensive literature review and the collected data, the study is structured under several thematic sections. The first chapter introduces the study by outlining its objectives, scope, and methodology. The second chapter presents the conceptual framework, shaped around selected keywords and theoretical foundations. The third chapter forms the core of the research, offering a detailed analysis of the selected case study cities to explore the contrasts between day and night urban imagery. All data used in this research were obtained exclusively from publicly accessible Instagram accounts. Acknowledging one of the key characteristics of qualitative research—namely, the non-generalizability of findings—the study is limited to the data gathered from the Instagram platform. Recognizing that social phenomena acquire meaning within the context of their specific environments, the findings are interpreted strictly within the boundaries of the selected sample areas and the digital medium under investigation. The fourth chapter compares and discusses the findings obtained from the visual analyses, while the fifth chapter presents the conclusions by evaluating how the concept of urban image differs between day and night in the selected cities.

1.3. Methodology

Research Design and Data Collection

This study aims to explain the transformation of urban image in day and night contexts through literature review and qualitative data analysis techniques. To achieve a comprehensive understanding of the concepts of day and night urban image, it is essential to incorporate perspectives from individuals who perceive and experience the city. Since the concept of image is inherently user-centered and shaped by individual perception, data must reflect authentic user experiences. In the contemporary digital age, numerous approaches exist to capture how individuals perceive and engage with urban space. Among these, user-based social media platforms offer dynamic, interactive, and participatory tools to investigate urban image. For this reason, the methodological framework of the study is structured around Instagram, which provides direct access to up-to-date, visual, and user-generated data. A new Instagram account—free from any previous interactions, followers, or posted content—was created for data collection to ensure neutrality in the platform's algorithm. The research was conducted using specific search questions, and the top-ranked posts, sorted according to Instagram's popularity algorithm for unpersonalized accounts, were selected for analysis. The selected questions included: “[City name]”, “[City name]”, “[City, Country]”, “[City]night” and “[City]day”. The research was completed by writing the name of the city being studied instead of the “[City]” template here. From each search, the top 100 posts were examined, and a total of 500 images were analyzed to uncover the distribution of urban image elements. If the same image appeared more than once under different queries, duplicates were excluded to preserve data diversity and represent the algorithm's organic ranking logic. The study only evaluated publicly accessible posts to ensure transparency and ethical compliance.

Sampling Criteria and Data Filtering

Given Instagram's emphasis on visual content and its role in expressing personal perception, it was chosen as the sole data source for this research. Other platforms, which include various content types and interaction behaviors, were excluded to maintain focus on visual-based user perception.

To avoid analytical bias, the following content types were excluded from the dataset:

- Posts depicting daily local life (e.g., cafés, markets, unidentified streets)

- Content with unclear time references, abstract visuals, or indoor/nightclub settings
- Temporary or seasonal events (e.g., festivals, temporary exhibitions)
- Professional photographs, advertisements, tourism campaigns, and aerial images
- Reels or video content, due to their dynamic nature and difficulty in standardized comparison

By focusing exclusively on photographs shared during the day and night, the study identified the most prominent visual and symbolic components representing urban spaces in different timeframes. These user-generated visuals enabled a comparative analysis of how urban image elements shift between daytime and nighttime, ultimately offering a concrete framework for understanding image transformation over time.

2. Conceptual background

The differing appearances that cities exhibit during daytime and nighttime play a decisive role in individuals' urban experiences and their perceptions of these experiences. The shaping of such perceptions is influenced not only by the physical environment and conditions but also by the relationship individuals establish with urban space. In order to interpret these differences, the concepts of urban image, nighttime image, daytime image, and Instagram as both a widely used platform for personal sharing and the methodological basis of this study have been addressed. These concepts are explained to provide a conceptual foundation for the research.

The starting point of the key concepts that form the basis of this research is the notion of *image*. According to the Turkish Language Association (TDK, 2024), *image* is defined as “a mental representation; something envisioned and desired to be realized, a dream.” The term, which has French origins, is further described as the reflection of an object perceived by the senses, or as objects and events that emerge in the mind without any external stimulus (TDK, 2024). The concept of image is directly related to the mind. Brewer and Treyens (1981) define the formation process of an element in the mental schema in five stages: 1. Coding the determined information, 2. Creating the framework of new information, 3. Integrating with information from different sources, 4. Existing information goes through the preliminary editing process, 5. Creating information that explains the space verbally (Kancioğlu, 2005). As can be understood from the mentioned stages, the concept of image is not only related to visuals. Individual perception, experience and interpretation processes are processed into the concept of image, respectively. As a result of the reflection of the concept of image onto urban space, various definitions of urban image exist.

Avraham (2004) divides the city image into two as “open” and “closed” images. Open image is defined as a structure where it is easy to add new elements and characters; closed image is defined as a structure where the possibility of adding new elements is low. Such images are also called “stereotypes”. They emerge in the city as stereotyped attitudes or beliefs that are not examined in depth, questioned or thought about. When a stereotype is formed about a place, it becomes very difficult to change this judgment because the target audience needs to be convinced of a new situation that may be the exact opposite of the existing belief. Avraham explains this situation with the example of Chicago, which was the center of gang activity in the 1920s and 1930s. Even today, Chicago is remembered by many people with crime and violence. Although the real crime rates do not fully correspond to this perception, the city is still known as a “city of crime” and this image does not change easily. This situation constitutes a clear example of the concept of closed image. Appleyard (1973) classifies the concept of urban image under three categories. This classification of image consists of operational, responsive, and inferential perceptions. The perception of urban spaces and elements is directly related to how the city is used. The individual's experience determines which space or element is needed, and perception is formed accordingly. Thus, bus stops, intersections, function-related structures, and various physical features of the urban environment become noticeable and memorable in the mind. Through this process—based on individual experience and repetition—the mental structure of the city, grounded in subjective perception, is established. Urban image refers to the physical aspect of the city, encompassing buildings, monuments, and streets that make up its architectural domain. This image is characterized by active development, variability, and temporariness. The urban image represents the visual and spatial perception of a city by a resident or a visitor. It is formed by the impressions that remain in individuals' minds (Novoselov, 1991). According to Lynch (2010 [original work published 1960]), the image of the city is a reflection of both an individual's immediate emotions and their past experiences. The urban image refers to how urban space is perceived by its users; in other words, it encompasses the mental images formed through the interaction between people and the spatial structure of the city. Mental maps created by individuals play a significant role in understanding the complex nature of the city. Lynch analyzes the image of the city through five key elements: paths, which are the streets and routes along which people move; edges, the lines that divide different districts or neighborhoods; districts, urban areas with a distinct identity; nodes, which are intersections or meeting points; and landmarks, which are easily recognizable and memorable visual cues. These five components contribute to how individuals mentally interpret and make sense of the city.

While the city image creates the general perception of urban space, this perception also has different dimensions that vary depending on day and night hours. The primary factor behind the differentiation of daytime and nighttime images in cities is light. Natural light plays a crucial role in the perception of urban space and acts as a determining element that guides both architectural and urban design. Through light, spatial elements such as color, texture, and form become perceivable. The recognition of natural light's potential to enhance spatial quality and architectural expression has brought it to the forefront as an aesthetic design component. Today, this function continues to evolve through technological advancements (Doğrusoy, 2001).

The ability to perceive, orient, and functionally use space is enabled by light. Natural light is not merely a functional tool; it also produces psychological effects. The perception of the day-night cycle and the variation of colors and light intensities directly affect how space is perceived and interpreted (Özorhon, 2002). The shadow-light contrasts

seen on building façades, street furniture, and landscape elements shape the city's aesthetic perception. Moreover, the changing light conditions depending on the sun's movement cause the city to present different images at different times of the day, enriching the urban imagery embedded in users' mental maps. Thus, natural light, beyond being a physical element, plays a central role in shaping the urban image during daytime hours.

In the absence of artificial intervention, urban appearances, uses, and levels of perception differ significantly between day and night. At night, the only natural source of illumination is moonlight, which, even at its peak during full moon phases, remains inadequate under contemporary urban conditions. Hence, urban lighting emerges as the fundamental element in ensuring the continuity of urban life at night and in shaping the nighttime image. According to Corten (2001), urban lighting is a critical planning component that enhances quality of life and improves urban spaces. Every urban value that defines a city's uniqueness must be perceivable and interpretable at night as well as during the day. Therefore, a thoughtful and integrated lighting design is essential in the process of creating urban meaning (Narboni, 2004).

Urban lighting extends beyond providing safety and functionality; it also serves as a design tool that sustains day-night continuity, highlights the city's identity and unique values, and carries social, cultural, and aesthetic significance (Neri, 2001). Moving beyond functional lighting, narrative-driven and design-oriented lighting projects have become key components of this process. Since the 1990s, the increased use of colored lights has enhanced visual appeal and aesthetic considerations, positioning lighting as a defining element in urban design (Ritter, 2006). In conclusion, this design element, which serves multiple functional and aesthetic purposes, has become inseparable from the city's nighttime image. Today, it is essential to consider lighting and the night image of the city as interrelated concepts.

The last concept to be explained in this study, which analyzes the concept of city image using the Instagram platform, is Instagram. Within the scope of the study, this platform, as a space where visual content plays a major role and reflects users' perceptions and thoughts about cities, provided the opportunity to analyze the differences in urban image during daytime and nighttime. Social media platforms are web-based technologies particularly suited to facilitate the exchange of ideas through collaboration, interaction, and discussion. The accessibility and low cost of internet access, together with the high number of users of these platforms, make social media one of the easiest and most effective ways to disseminate information. (Escamilla-Sanchez et al., 2025) Instagram, established in 2010, is a social networking platform that enables users to share and access photographs. The name 'Instagram' is derived from a combination of the English words 'instant', meaning immediate, and 'telegram', referring to a method of transmitting messages. One of the key factors contributing to Instagram's popularity is its function as a platform where individuals can share moments from their lives quickly and entertainingly through photographs (Yeniçikti, 2016). Instagram is a free, online photo-sharing application and social network platform that allows users to upload, edit, and customize (e.g. with text and graphics) photos and videos. Instagram posts are photos and videos that are shared to the profile feed. These posts remain on a profile forever unless the account manager deletes them. The posts appear in an active user's feed when he or she follows that particular account or sees a promoted post targeting them (i.e. paid advertisement) (Thomas, Chavez, Browne, & Minnis, 2020). Nowadays, the most significant reasons for using social media include the ability to communicate with others, stay instantly informed about current news and developments, spend leisure time, share personal opinions and identities with other users, establish connections for purposes such as friendship, work, and education, follow the posts of others, take photographs to remember important places and moments, and to collect memories, as well as to organize collectively. (Aktan, 2018)

Thanks to its visual-based structure, Instagram has become a tool for collecting and analyzing individual perceptions of urban spaces in the digital environment. Beyond being a platform where users can share their personal experiences, instant observations, and snapshots of their lives, Instagram has evolved into a digital reflection of cities' daytime and nighttime images. This platform is actively used by users to visually present various aspects of cities from different time periods and perspectives. By sharing photographs of the places they inhabit, cityscapes, architectural structures, street life, and the urban atmosphere, users create a rich visual content that reflects how cities are perceived. These visual contents not only reflect personal experiences but also contribute to the formation of a collective urban image in society.

3. Global cities night and day image analysis

In order to explain the concept of daytime and nighttime imagery in cities, a comparative analysis was conducted across selected global cities. Based on the "Euromonitor International's Report: Top 100 City Destinations Index 2023", cities were chosen from different continents among the top 20 ranked by the number of international overnight visitors. Accordingly, Paris, London, Singapore, New York, and Hong Kong were selected for the study. In these cities, the concept of urban image was examined through the analysis of photographs shared on Instagram—one of the contemporary platforms for expressing individual perception and experience. By analyzing both daytime and nighttime images posted by users, the differences in the city image across temporal contexts were assessed.

Table 1. Euromonitor International’s Report: Top 100 City Destinations Index 2023.

Rank	City, Country
1	Paris, France
2	Dubai, United Arab Emirates
3	Madrid, Spain
4	Tokyo, Japan
5	Amsterdam, Netherlands
6	Berlin, Germany
7	Rome, Italy
8	New York, United States
9	Barcelona, Spain
10	London, United Kingdom
11	Singapore, Singapore
12	Munich, Germany
13	Milan, Italy
14	Seoul, South Korea
15	Dublin, Ireland
16	Osaka, Japan
17	Hong Kong, Hong Kong SAR
18	Vienna, Austria
19	Los Angeles, United States
20	Lisbon, Portugal

Within the scope of the study, an analysis was conducted in cities with the search titles “[City name]”, “[Cityname]”, “[City, Country]”, “[City]night”, “[City]day”. In the tables below, a classification was made according to the time period in which the photo was taken and the elements the photo contains, within the scope of the total of 500 posts obtained, the first 100 posts listed under each search title.

Paris

In Paris, analyses were conducted using the search titles “Paris”, “#Paris”, “Paris, France”, “#Parisnight”, “#Parisdaily”. As a result of the findings, the following photo elements were identified in the shared posts: Eiffel Tower, Arc de Triomphe, Urban Skyline, Street View, Seine River, Place de la Concorde, Dôme des Invalides, Sacré-Cœur Basilica / Montmartre, Louvre Museum, Pont Alexandre III and Disneyland. Approximately 38% of the posts were night photos, while approximately 62% were day photos. Within the scope of the posts, the most frequently featured photo element in approximately 49% of the total posts in Paris was the Eiffel Tower. The second most featured element was the Louvre Museum, which constituted approximately 12% of the posts. Of the 243 Eiffel Tower photographs, approximately 43% were night photographs, while approximately 57% were day photographs. Of the 58 Louvre Museum photographs, approximately 36% were night pictures, while approximately 64% were day photographs.

Table 2. Urban Image Analysis of Paris (Created by the author).

ELEMENT	Night	Day
Eiffel Tower	104	139
Arc de Triomphe	18	34
Urban Skyline	8	17
Street View	14	33
Seine River	2	16
Place de la Concorde	5	7
Dôme des Invalides	5	9
Sacré-Cœur Basilica / Montmartre	6	8
Louvre Museum	21	37
Pont Alexandre III	6	10
Disneyland	0	1

Chart 1. Distribution of Daytime and Nighttime Photographs in Paris Created by the author.

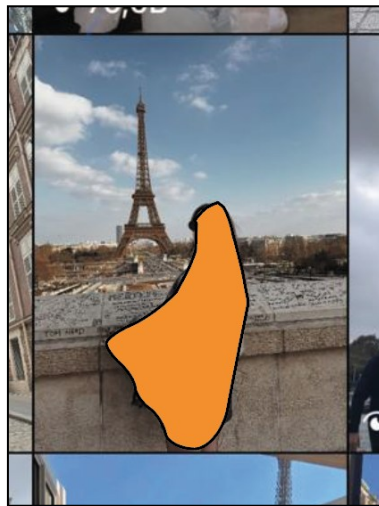
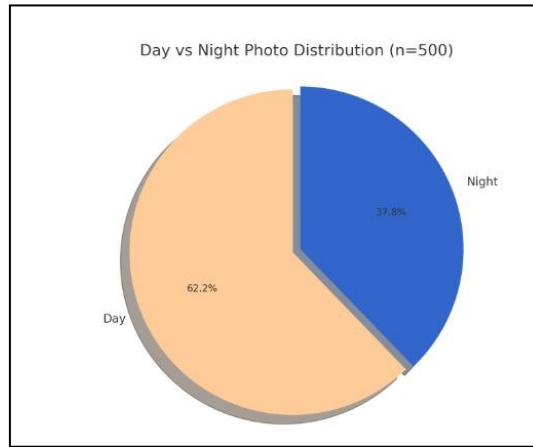


Figure 1. Sample Photograph Analyzed From Paris (Screenshot taken from Instagram. Anonymized by the author).

New York

In New York, analyses were conducted using the search titles “New York”, “#Newyork”, “New York, USA”, “#Newyorknight”, “#Newyorkday”. As a result of the findings, the following photo elements were identified in the shared posts: Statue of Liberty, Times Square, Urban Skyline, Yellow Taxi Icon, Central Park, Street View and George Washington Bridge and Brooklyn Bridge. Approximately 41% of the posts were night photos, while approximately 59% were day photos. Within the scope of the posts, the most frequently featured photo element in approximately 38% of the total posts in New York was Times Square. The second most common element was the Urban Skyline, which constituted approximately 21% of the posts. Of the 190 Times Square photographs, approximately 58% were night photographs, while approximately 42% were taken during the day. Of the 103 Urban Skyline photographs, approximately 46% were night photographs, while approximately 54% were day photographs.

Table 3. Urban Image Analysis of New York (Created by the author).

ELEMENT	Night	Day
Statue of Liberty	10	14
Times Square	110	80
Urban Skyline	47	56
Yellow Taxi Icon	0	16
Central Park	0	37
Street View	12	27
George Washington Bridge and Brooklyn Bridge	28	63

Chart 2. Distribution of Daytime and Nighttime Photographs in New York (Created by the author).

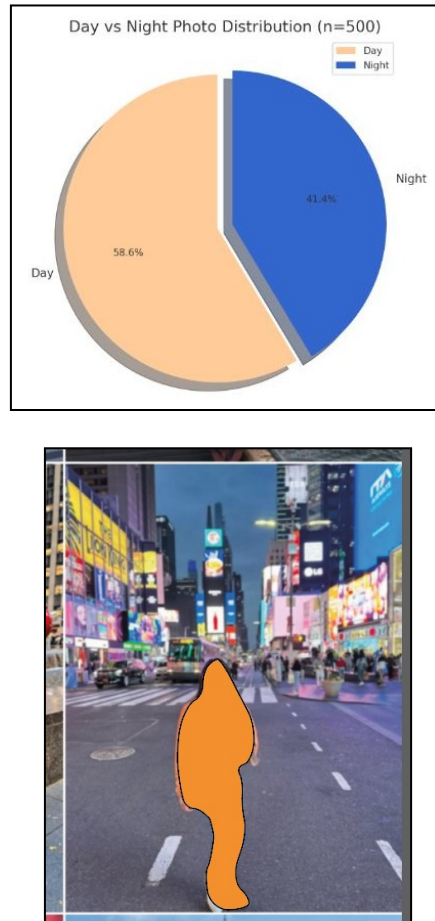


Figure 1. Sample Photograph Analyzed From New York (Screenshot taken from Instagram. Anonymized by the author).

London

In London, analyses were conducted using the search titles “London”, “#London”, “London, UK”, “#Londonnight”, “#Londonday”. As a result of the findings, the following photo elements were identified in the shared posts: Westminster and Big Ben, Tower Bridge, London Eye, Red Telephone Box, Piccadilly Circus, Urban Skyline, Red Bus, St. Paul’s Cathedral, Trafalgar Square. Approximately 39% of the posts were night photographs, while approximately 61% were taken during the day. Within the scope of the posts, the most frequently featured photo element in approximately 31% of the total posts in London was the Westminster and Big Ben. The second most commonly shared photo elements were the London Eye and Tower Bridge, which each accounting for approximately 15% of the posts. Of the 154 Westminster and Big Ben photographs, approximately 31% were night photographs, while approximately 69% were day photographs. Of the 77 London Eye photographs, approximately 48% were night photographs, while approximately 52% were taken during the day. Of the 76 Tower Bridge photographs, approximately 34% were night photographs, while approximately 66% were taken during the day.

Table 4. Urban Image Analysis of London (Created by the author).

ELEMENT	Night	Day
Westminster and Big Ben	48	106
Tower Bridge	26	50
London Eye	37	40
Red Telephone Box	14	31
Piccadilly Circus	30	17
Urban Skyline	10	12
Red Bus	8	25
St. Paul’s Cathedral	12	14
Trafalgar Square	8	12

Chart 3. Distribution of Daytime and Nighttime Photographs in New York (Created by the author).

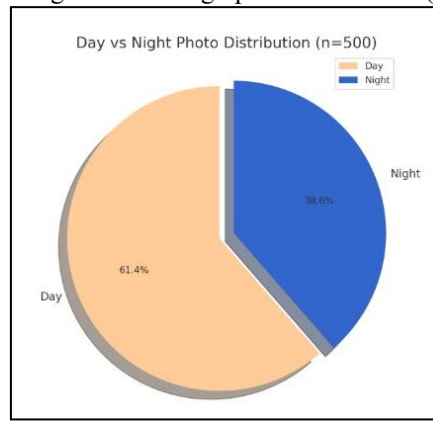


Figure 3. Sample Photograph Analyzed From London (Screenshot taken from Instagram. Anonymized by the author).

Singapore

In Singapore, analyses were conducted using the search titles “Singapore”, “#Singapore”, “Singapore, Singapore”, “#Singaporenight”, “#Singaporeday”. As a result of the findings, the following photo elements were identified in the shared posts: Marina Bay Sands, Merlion Statue, Gardens By The Bay, Changi Airport, Urban Skyline, Universal Studios, Singapore Botanic Gardens, Chinatown and Little India. Approximately 36% of the posts were night photos, while approximately 64% were taken during the day. Within the scope of the posts, the most frequently featured photo element in approximately 31% of the total posts in Singapore was the Marina Bay Sands. The second most common element was the Urban Skyline, which constituted approximately 22% of the posts. Of the 155 Marina Bay Sands photographs, approximately 32% were night photographs, while approximately 68% were day photographs. Of the 110 Urban Skyline photographs, approximately 52% were night photographs, while approximately 48% were taken during the day.

Table 5. Urban Image Analysis of Singapore (Created by the author).

ELEMENT	Night	Day
Marina Bay Sands	50	105
Merlion Statue	29	50
Gardens By The Bay	30	22
Changi Airport	4	31
Urban Skyline	57	54
Universal Studios	0	19
Singapore Botanic Gardens	1	20
Chinatown	5	12
Little India	2	10

Chart 4 Distribution of Daytime and Nighttime Photographs in Singapore (Created by the author).

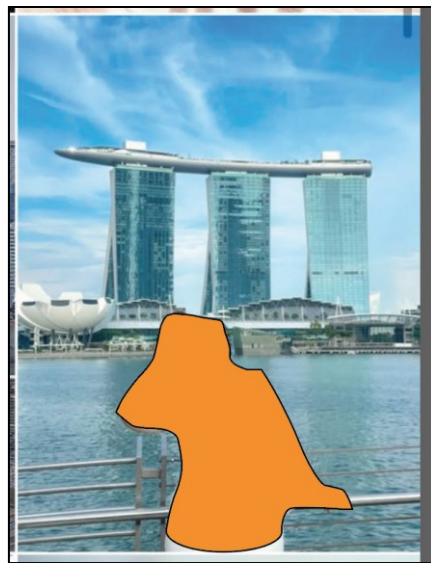
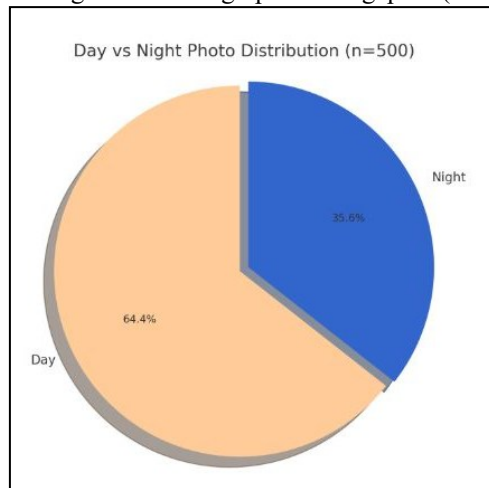


Figure 2. Sample Photograph Analyzed From Singapore (Screenshot taken from Instagram. Anonymized by the author).

Hong Kong

In Hong Kong, analyses were conducted using the search titles “Hong Kong”, “#HongKong”, “HongKong, China”, “#Hongkongnight”, “#Hongkongday”. As a result of the findings, the following photo elements were identified in the shared posts: Avenue of Stars HK, urban skyline (Victoria Peak), Choi Hung Estate, Montane Mansion (also known as Monster Building), Giant Buddha Statue, Victoria Harbour, Wong Tai Sin Temple, Lan Kwai Fong, Dundas Street & Nathan Road Intersection (Mong Kok – Kowloon), and Times Square. Approximately 42% of the posts were night photos, while approximately 58% were taken during the day. Within the scope of the posts, the most frequently featured photo element approximately 22% of the total posts in Hong Kong was the Victoria Harbour. The second most common element was the Montane Mansion (Monster Building) which constituted approximately 19% of the posts. Of the 108 Victoria Harbour photographs, approximately 56% were night photographs, while approximately 44% were taken during day. Of the 95 Montane Mansion (Monster Building) photographs, approximately 11% were night photographs, while approximately 89% were taken during the day.

Table 6. Urban Image Analysis of Hong Kong (Created by the author).

ELEMENT	Night	Day
Avenueof Stars	10	29
Urban Skyline (Victoria Peak)	34	37
ChoiHung Estate	1	24
Montane Mansion (Monster Building)	10	85
Giant Buddha Statue	0	21
Victoria Harbour	61	47
Wong Tai Sin Temple	0	10
Lan Kwai Fong	23	2
Dundas Street & Nathan Road Intersection (Mong Kok – Kowloon)	25	13
Times Square	44	24

Chart 5 Distribution of Daytime and Nighttime Photographs in Hong Kong (Created by the author).

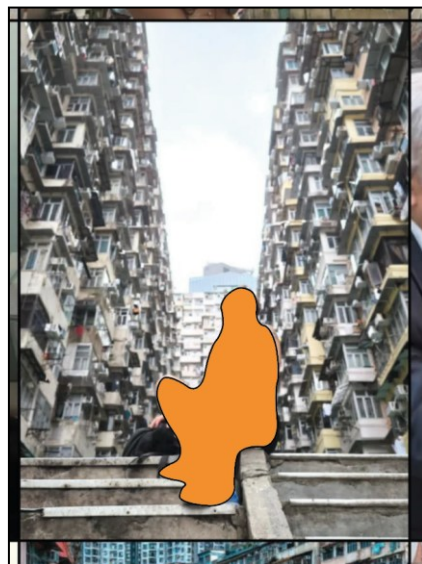
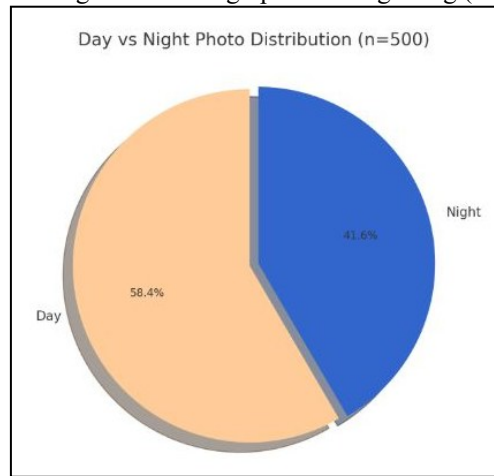


Figure 5. Sample Photograph Analyzed From Hong Kong (Screenshot taken from Instagram. Anonymized by the author).

4. Discussion

The analysis conducted across five global cities—Paris, New York, London, Singapore, and Hong Kong—demonstrates that the perception of urban spaces during day and night is shaped by distinct physical and visual factors. While iconic landmarks such as the Eiffel Tower, Times Square, Marina Bay Sands, and Victoria Harbour maintain a central role in both diurnal and nocturnal representations of urban image, the temporal distribution of photographic attention reveals significant variation. In Paris, for instance, the Eiffel Tower remains a dominant symbol in both day and night imagery. However, 57% of the collected photographs were taken during daylight hours. This tendency may be attributed to the enhanced visibility of the structure's architectural details under natural light, suggesting a preference for clarity and structural legibility in daylight conditions. Conversely, in New York, Times Square stands out more prominently in nighttime imagery, with 58% of photographs captured after dark. This reflects the visual intensity of the area's illuminated billboards and digital façades, which create a compelling and immersive nocturnal experience. A comparable contrast is observed between Singapore and Hong Kong. While Marina Bay Sands is more frequently photographed during the day—likely due to its harmonious integration with the surrounding environment—Victoria Harbour in Hong Kong emerges as a defining element of the night-time cityscape. This can be explained by the strong presence of lighting schemes and water reflections that enhance the visual drama of the space after dark. In the case of London, landmarks such as Westminster and Big Ben are predominantly represented in daylight imagery (69%), underscoring the visual significance of historical architecture, whose intricate details are more legible in natural lighting conditions. These discrepancies cannot be solely ascribed to user preferences. Rather, they are closely linked to factors such as lighting design, urban staging, and environmental atmosphere. Especially in night-time settings, artificial illumination plays a key role in reshaping the visual perception and narrative of urban identity.

Collectively, these findings strongly support the central hypothesis of this study: urban image is not solely determined by the physical presence of space, but also by how such spaces are presented and perceived at different times of day. In some cities, visual emphasis is constructed through architectural aesthetics enhanced by daylight; in others, the urban image is shaped more significantly by the dramatic effects of artificial lighting and night-time spectacle. Therefore, rather than an equal visual balance between day and night, the contrast between the two is defined by varying qualities of illumination, architectural articulation, spatial usage, and ambient conditions.

5. Conclusion

The findings of this study reveal how image elements are shaped in five major metropolitan contexts—Paris, New York, London, Singapore, and Hong Kong—and how perceptual differences between day and night emerge within urban spaces. Each city demonstrates unique visual and spatial characteristics that influence the representation and perception of iconic landmarks across temporal contexts. In Paris, the Eiffel Tower offers a striking contrast between day and night. During the day, its structural details and relationship with the surrounding landscape become more apparent under natural light. At night, however, the tower's illumination enhances its symbolic power and contributes to the atmospheric quality of the city. Similarly, Times Square in New York acquires an entirely different identity after dark, transformed by its vibrant, illuminated advertising panels, while during daylight hours, the space appears significantly calmer and less visually dominant. These cases underscore the pivotal role of lighting and architectural expression in shaping the perception of urban environments at different times of day. In London, historical landmarks such as Westminster and Big Ben are more pronounced in daylight due to their intricate architectural detailing, whereas contemporary structures like the London Eye become more visually engaging at night through dynamic lighting strategies. These patterns suggest that although the same iconic elements hold relevance both during the day and at night, the temporal prominence of each element varies according to the city's physical, cultural, and design-related characteristics. This dynamic also emphasizes how urban design and lighting practices have the capacity to reconfigure a city's nocturnal image. Architectural features, along with environmental and atmospheric conditions, are fundamental in mediating the visual perception of urban identity across different temporal contexts. Notably, lighting emerges as a critical factor, not merely as a visual enhancement, but as a tool that contributes to the construction of urban character. In cities like Paris, New York, London, Singapore, and Hong Kong, lighting plays a decisive role in reinforcing symbolic associations and shaping the aesthetic appeal of the nightscape. Artificial illumination transforms city silhouettes, increases visual interest, and enhances the experiential dimension of urban spaces after dark. Ultimately, rather than a symmetrical distribution between day and night imagery, what emerges is a context-specific visual prioritization. This reinforces the notion that urban image is not static, but rather negotiated through the interplay of lighting, architectural detail, environmental conditions, and urban staging. From this perspective, lighting and design strategies function as powerful tools in the representation of urban identity and the reflection of broader cultural and social values. Furthermore, the use of Instagram data proves valuable in revealing individual perceptual tendencies and public engagement with urban imagery. These visual narratives, shared by users, serve as a contemporary lens through which cities are not only experienced but also collectively imagined. Thus, social media content provides a rich source of data for examining how urban spaces are differently perceived and prioritized throughout the day and night.

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