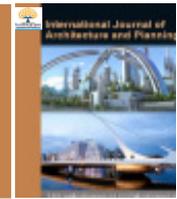




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The Chicago Skyline: An Urban Design Analysis

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Abstract

This paper focuses on a comprehensive examination of the Chicago Skyline, considering it not merely a collection of buildings but a powerful urban symbol. It emphasizes that a skyline, when viewed as a unified entity, visualizes a city's achievements, economic standing, cultural aspirations, and lifestyle. The concept of an imageable skyline is underscored, highlighting its role in enhancing the city's reputation, reinforcing civic identity, and instilling a sense of pride among its inhabitants. The visual impact of a notable skyline is argued to extend beyond aesthetics, offering practical benefits by aiding residents and visitors in orienting themselves within the urban landscape and facilitating navigation. The paper draws inspiration from Kevin Lynch's notion of a modern skyline as a "vertical edge" formed by tall buildings. Lynch's perspective serves as a framework for the analysis, providing insights into the role of skyscrapers in shaping the visual identity of a city. The ultimate objective of the paper is to delve into the specifics of the Chicago Skyline, extracting valuable lessons in placemaking and urban design. This suggests a deeper exploration beyond surface aesthetics, aiming to uncover practical insights that can inform future urban development and enhance the cityscape. In summary, the paper adopts a holistic approach to studying the Chicago Skyline, recognizing its significance as a symbol and exploring its multifaceted impact on the city and its inhabitants. Incorporating Kevin Lynch's perspective adds theoretical depth to the analysis, and the overarching goal is to derive meaningful lessons for placemaking and urban design practices.¹

Keywords: *Imageability, Placemaking, Visual synthesis, Urban identity, Kevin Lynch*

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1. Introduction

When seeing an urban environment, one cannot help but perceive the evident diversity in the dimensions, architectural style, structure, chromatic palette, tactile qualities, and geometric configuration of buildings. The use of well-defined urban design concepts can contribute to the creation of a visually cohesive streetscape and enhance the aesthetic appeal of a city's skyline, resulting in a lasting and notable impression. On the macro scale, urban designers believe buildings should follow an order in height, gradually varying from the least to the most significant height, thereby

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¹ This paper builds on previously published research.

creating strong focal points on the city's skyline. Urban designers contend that a disorderly atmosphere is created when there is an abrupt or inadequate transition between building heights (Attoe, 1981). On the contrary, constructing buildings with uniform heights, as sometimes proposed by zoning restrictions, may yield a visually unappealing skyline characterized by a lack of variation and monotony. Both the homogeneity and the lack of height variation in tall structures pose a potential violation of urban design principles concerning skylines (Al-Kodmany, 2017; Puspitasari and Kwon, 2019).

In contrast to older urban centers, characterized by a scarcity of notable vertical structures, the contemporary cityscape is characterized by a diverse assemblage of towering and exceptionally tall edifices, each vying for eminence within the urban skyline. Similarly, the visual range that surrounds tall buildings extends over a considerable distance, enabling them to be observed from remote vantage points that extend far outside the urban area (Höweler, 2003). According to architectural critic Montgomery Schuyler, the new urban picture might be characterized as chaotic from a strictly aesthetic standpoint. Schuyler observed that the presence of scattered or clustered towers in the urban landscape creates a lack of cohesion, as these structures appear disconnected both from each other and from the ground plane below (Attoe, 1981). Schuyler put forth the notion of actively seeking a form of aesthetic appeal characterized by a "picturesque beauty" that arises from the collective impact of towering structures, which exude a sense of grandeur and magnificence. According to Kostof (1991), the modern skyline can be characterized as a deliberate arrangement created by human agency, mostly influenced by technological advancements and the profit-driven intentions of individuals. This contemporary urban silhouette stands apart from previous eras as it no longer relies on the prominence of steeples and domes for its definition.

Contemporary photography, alongside mainstream media, and more lately, social media platforms, tend to idealize the visual representation of both humans and the architectural ensemble of towering skyscrapers that constitute a city's distinctive skyline. Individuals frequently showcase these objects as aesthetically pleasing artifacts or powerful emblems of urbanity, so fostering sentiments of respect, affection, and reverence. Individuals purchase posters and postcards featuring urban skylines with the intention of embellishing their workspaces, interior walls, and online platforms, thereby demonstrating their admiration for the aesthetic qualities inherent in these cityscapes (Bell, 2013; Lepik, 2008). City skyline photos are frequently utilized on art and architectural websites, blogs, and social media platforms as a means to actively involve friends and online visitors in conversations pertaining to their aesthetic appeal. The utilization of skyline imagery in movies, films, and television shows frequently serves as a means to evoke feelings of contemporary society, communal satisfaction, and advancements in scientific endeavors (Kunkale, 2015; Lim and Heath, 1994).

Significant inquiries emerge. Does the formation of a skyline result from a self-generating evolutionary process that is influenced by the design and configuration of each building in relation to its specific location? Conversely, can skylines be intentionally created as a result of a gradual process, guided by the objective of attaining a grand, aesthetically organized panoramic view? The act of moderating this discourse reveals inquiries pertaining to the involvement of urban designers in the formation of a city's skyline. By engaging in meticulous urban design planning at the municipal level, the city government can effectively exert its authority in creating the visual composition of the cityscape. This can be achieved through the utilization of zoning and permitting approval procedures, as highlighted in the works of Gonçalves (2010) and Short (2007).

Nevertheless, in cases where decision-makers possess an ambiguous planning vision, it is plausible for a city to exhibit a disorganized skyline that lacks a distinct visual identity. The potential for the emergence of a distinct and easily identifiable urban aesthetic may subsequently give rise to disorderly, unappealing, and fragmented urban landscapes. Several scholars contend that urban designers should view the skyline as a constantly evolving and adaptable space. They propose that guiding the ongoing development of the skyline through the establishment of practical guidelines pertaining to building heights, setbacks, stepbacks, shapes, aesthetics, and appearance is a crucial concept that this paper aims to investigate (Ford, 1976; Nasar *et al.*, 2002).

2. Skyline Views

The perception and understanding of a skyline can be influenced by the specific vantage point from which it is observed. The field of urban design examines three primary perspectives for observing an urban skyline: from a

waterfront location such as rivers, lakes, or coastlines; from the land itself; or from elevated positions such as hills, mountains, tall buildings, or supertall structures (Al-Kodmany and Ali, 2013; Karimimoshaver and Winkelmann, 2018).

2.1. Waterfront Views

The observation of a skyline from a waterfront vantage point provides a comprehensive and emotionally evocative visual experience. Obtaining a vantage point from a boat or ferry when departing the urban area enables a more comprehensive perspective. The majority of prominent urban areas has a water feature in close proximity to a river, lake, or sea. The juxtaposition of a waterfront's horizontality and a tall building's verticality creates a visually appealing contrast. Moreover, the presence of water can enhance the perception of height in tall buildings through the phenomenon of reflections. The layout of tall buildings along a waterfront frequently results in the formation of distinct boundaries that enhance the perceptual distinctiveness of a skyline. The aesthetic appeal of waterfront skylines during nighttime is remarkable. According to the study participants' affirmation, Chicago serves as a notable example of a skyline that is visually memorable along a waterfront, both during the day and at night (see Figure 1).



Figure 1: One of the Most Notable Vantage Points for Observing The Chicago Skyline is from the Perspective of Lake Michigan. The Nocturnal Reflections of Buildings and Lighting Enhance the Integration Between the Water and Cityscape, Resulting in a Captivating and Immersive Sense of Location

Source: Photograph by author

2.2. Land Views

When observed from a lower vantage point, the vertical dimensions and overall size of individual structures have the potential to impede the visibility and aesthetic appeal of a city’s horizon. Due to this factor, individuals residing in metropolitan areas often encounter only disjointed segments of the city’s skyline during any particular instance. Opportunities to see panoramic views of urban skylines are typically encountered along external transportation corridors, such as highways that provide access to a metropolis. The observation of urban landscapes from highways and expressways can yield valuable insights for drivers regarding the structural organization of the city, its symbolic significance, patterns of human utilization, and its relevance to individuals.

The initial glimpses resemble the opening passage of a compelling literary work. The authors establish the context for the practice of placemaking and emphasize the importance of a more detailed examination of urban spaces. Hence, the analysis of perspectives from prominent transportation arteries is one of the foremost design considerations for urban skylines. The presence of axial corridors that converge towards the city core is of utmost importance. According to Al-Kodmany (2013) and Kostof (1991), it is suggested that major courses should be strategically planned in conjunction with skyscraper locations. This arrangement would optimize the views along these routes, ensuring that observers are exposed to the most ideal vistas and are properly oriented. Major highways also have a crucial function in physically delineating high-rise neighborhoods, as depicted in Figures 2 and 3.

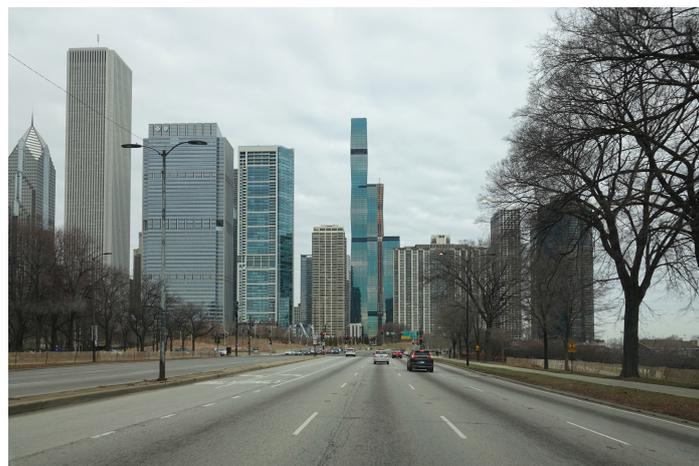


Figure 2: The Major Thorough Fares and Rexpressways that Converge into the Central Business District Afford Awe-Inspiring Vistas of the Iconic Chicago Skyline. These Vantage Points Provide a Crucial Introduction to the Sense of Location in Chicago

Source: Photograph by author



Figure 3: The Presence of Major Freeways Encircling the Chicago Loop Contributes to the Establishment of Distinct Boundaries, Hence Enhancing the Imageability of Downtown Chicago. These Arteries Serve to Enhance the Notion of Location, Rather than Disrupt it

Source: Photograph by author

2.3. High Elevation Views

Naturally, the observation of high-altitude vistas can be achieved by ascending mountains or hillsides. Nevertheless, it should be noted that tall buildings offer captivating perspectives of the urban landscape and its distinctive skyline. The observation decks of supertall and megatall structures frequently provide sightseers with breathtaking panoramic vistas. A comprehensive perspective from above allows for a more profound comprehension and admiration of various aspects of a city, including its urban dimensions, diverse land utilization, distribution of buildings, civic infrastructure, vehicular traffic, natural landscaping, and lighting systems, among other notable characteristics.

Undoubtedly, while observing from elevated positions, an observer has the ability to achieve with a single glance what would otherwise need several days of exploration at ground level. The comprehensive spatial configuration of the city, including its periphery, thoroughfares, and intersections, can be comprehended and analyzed holistically within a few timeframe. The act of capturing this image, analogous to a dynamic cognitive representation, serves to provide the viewer with a sense of direction for subsequent excursions, which is a fundamental aspect of the process of creating a sense of place (Al-Kodmany and Ali, 2013).

The observation decks of the John Hancock Center offer exceptional panoramic vistas of the city of Chicago. In the year 2014, the building underwent an integration process that resulted in the addition of the 360 Chicago – TILT feature, which provides a remarkable vantage point overlooking the city. Situated at an elevation of 1,000 feet (305 m) above the

Magnificent Mile, TILT is a structure comprised of glass and steel, designed to enclose and facilitate movement. This platform has the capacity to accommodate a maximum of eight individuals throughout each cycle. The structure has an outward inclination at an angle of 30°, resulting in captivating aerial perspectives of the urban landscape.

In a similar vein, the observation deck of Willis Tower, situated on the 103rd level, affords guests the opportunity to behold the panoramic vistas of Chicago, Lake Michigan, and, weather permitting, the neighboring states. In the year 2009, the Willis Tower, formerly known as the Sears Tower, made an addition to its observation deck known as The Ledge, thereby enhancing the whole experience for visitors by providing a heightened sense of excitement. The Ledge significantly alters the manner in which individuals perceive and engage with the city of Chicago. The Ledge, situated at an elevation of 412 m (1,353 ft), comprises four glass enclosures that protrude 1.3 m (4.3 ft) from the structure. These enclosures offer captivating panoramic vistas of the urban landscape (Al-Kodmany, 2018) (Figures 4 and 5).

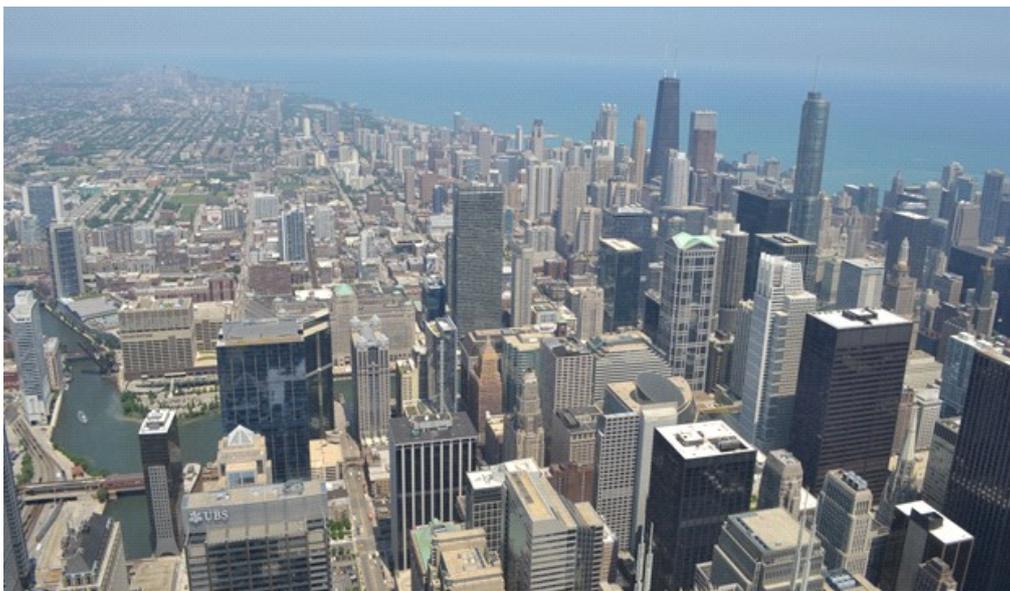


Figure 4: The Observation Decks of John Hancock and Willis Tower Offer Distinct Perspectives of the Skyline. By Facilitating the Rapid Formation of a Cognitive Representation, this Perspective Serves to Familiarize Individuals with the Urban Arrangement, so Becoming a Fundamental Component of Placemaking

Source: Photograph by author



Figure 5: The Architectural Feature Commonly Referred to as the “Ledge” Located at Willis Tower. The Recent Inclusion Provides Captivating Aerial Perspectives of the Urban Landscape. The Presence of Urban Clusters, Spatial Hubs, and Conspicuous Paths is Immediately Observable, Eliciting a Distinct Urban Landscape

Source: Photograph by author

3. Urban Design Elements

The following discussion underscores the fundamental importance of how tall buildings, the natural landscape, and the overall cityscape interact and relate to each other in shaping a city’s skyline. It asserts that this relationship is not only crucial for creating a visually memorable skyline but also plays a key role in promoting placemaking, which involves designing spaces that have a distinct identity and foster a sense of community. Indeed, the interconnectedness of tall buildings, the natural landscape, and the cityscape influences the imageability of a skyline and contributes to the larger goal of effective placemaking. The discussion suggests that a thoughtful and harmonious relationship between these elements is pivotal for creating a visually striking, memorable, and community-oriented urban environment.

3.1. Natural Landscape

It is imperative for tall structures to exhibit due regard for the natural elements that constitute the backdrop and foreground of urban landscapes. Regrettably, numerous skyscrapers have undermined the aesthetic appeal of their urban landscapes by obstructing or obscuring the picturesque vistas. As an illustration, a number of towering structures in Hong Kong have surpassed the Victoria crest, so obscuring the innate splendor of the adjacent mountains. The natural environment around Chicago, which is in close proximity to Lake Michigan, is effectively promoted and protected by the presence of Grant Park, a substantial green space. The significance of the buffer area becomes evident in its role

of facilitating a smooth transition between the vertical plane, characterized by tall structures, and the horizontal plane represented by Lake Michigan.

Grant Park contributes to the enhancement of spatial linkages and the improvement of the visual aesthetics of the city, as depicted in Figures 6 to 8. The presence of tall structures contributes to the positive delineation of the open space within Grant Park. If the park were not present, specifically if the downtown area were directly adjacent to the lake, similar to the arrangement in most coastal cities, the observer would have experienced a sudden and overpowering visual effect. In addition, it is worth noting that the towering structures situated along the lakeshore predominantly possess slender profiles, a design choice made to prevent obstruction of the scenic vistas of Lake Michigan. The deliberate examination of height, mass, and volume on a significant scale contributes to the cultivation of placemaking by utilizing interstitial spaces as connectors, rather than creating sudden boundaries (Riley and Nordenson, 2003).



Figure 6: The Presence of Chicago Skyscrapers Contributes to the Establishment of Distinct Boundaries and Serves to Delineate the Spatial Extent of Grant Park. The Visual Enclosure, Which Is Proportionally Adjusted to the Urban Context, Establishes a Distinct Sense of Location Over The Entirety of The Park

Source: Photograph by author

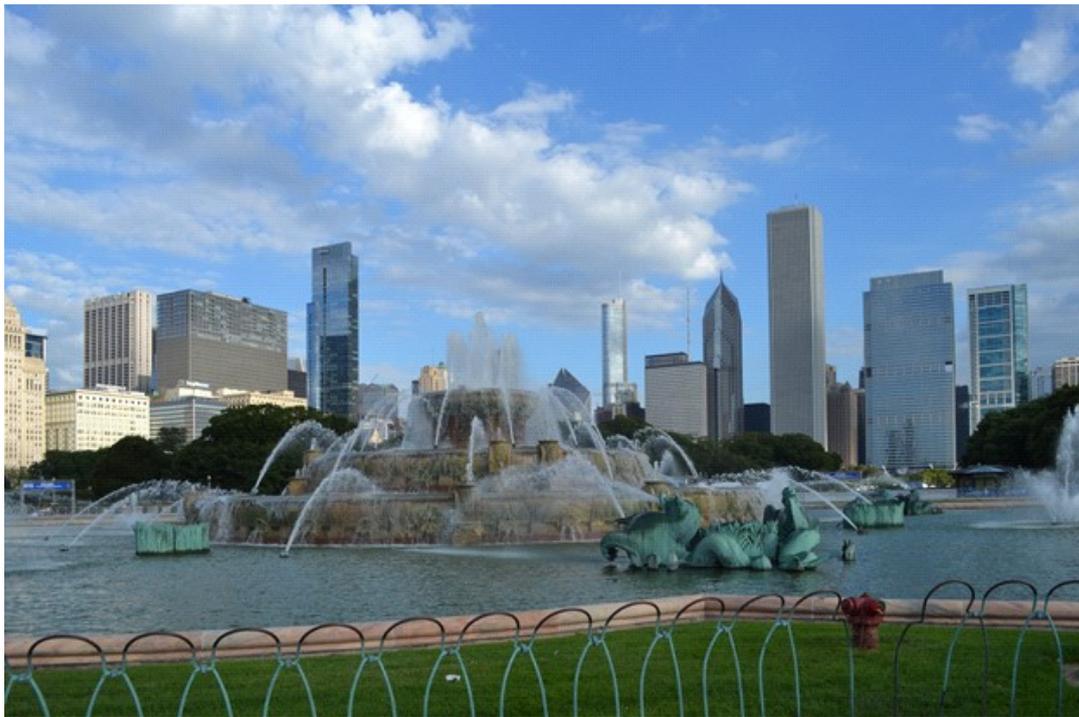


Figure 7: Grant Park and Buckingham Fountain Contribute to the Aesthetic Appeal and Imbue the Urban Landscape With a Subtle, Evocative Touch. Maggie Daley Park, Situated at the Northeastern Boundary of Grant Park, Serves as a Harmonious Addition to the Urban Landscape by Offering Vibrant Recreational Spaces and Incorporating Naturalistic Landforms. The Public Dedication to Equal Access and Greenspace, Situated on the Most Valuable Real Estate in Chicago, is Affectionately Named After a Renowned Individual From the City. This Establishment Gathers Admiration from Both Locals and Visitors, Thus Enhancing the City's Appeal. This Particular Instance Serves as a Notable Illustration of Effective Placemaking That Encompasses Both Spatial and Emotive Dimensions

Source: Photograph by author



Figure 8: The Presence of Mature Trees in Grant Park, Situated Along the Shores of Lake Michigan, Serves to Soften and Minimize the Visual Prominence of the Rough Edges Exhibited by Skyscrapers. Similarly, The Presence of Huge Trees Mitigates the Imposing Impact of Towering Structures. The Manipulation of Texture, Color, Height, and Lines Engenders Visual Intrigue, So Establishing a Palpable Feeling of Locale

Source: Photograph by author

3.2. Cityscape

In order to optimize the aesthetic appeal of a city's skyline, it is imperative for urban designers to undertake comprehensive assessments of the spatial arrangement of high-rise structures, as outlined below.

3.2.1. Spacing

The perceptual quality of a skyline is influenced by the arrangement of vertical structures. The utilization of narrow spacing serves to enhance visual continuity and strengthen the silhouette of a skyline, so creating a more cohesive and memorable image. These aspects are crucial components of the process of placemaking. On the other hand, the implementation of broad spacing between buildings results in notable spatial gaps that diminish the skyline's capacity

to be visually memorable, ultimately giving it an unintended or disorderly appearance. In other words, unplanned gaps create visual disorder, signaling that the city's growth is haphazard and erratic. One of the factors contributing to the Chicago Skyline's prominence in the United States is the deliberate arrangement of its skyscrapers, resulting in a distinct and visually striking "vertical edge" (Figures 9 to 12).

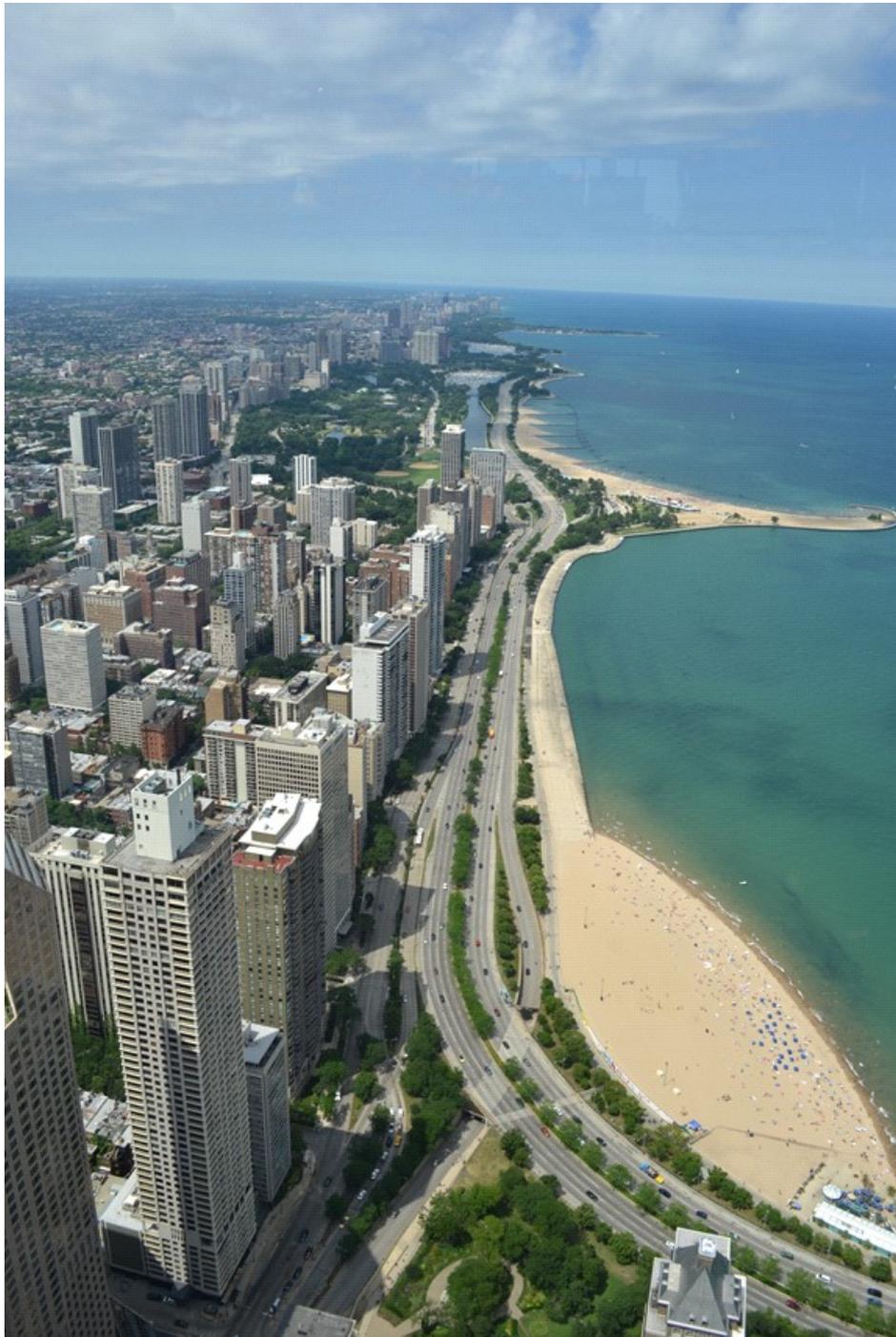


Figure 9: The Presence of Tall Structures Along the Shoreline of Lake Michigan Establishes a Prominent and Continuous Vertical Boundary. The Urban Giants Collectively Coalesce to Create a Distinct Visual Representation and Evoke a Strong Sense of Location. The Urban Boundary Formed by the Presence of Towering Structures Serves To Enhance the Perceptual Distinctiveness of the Natural Boundary Formed by Lake Michigan

Source: Photograph by author

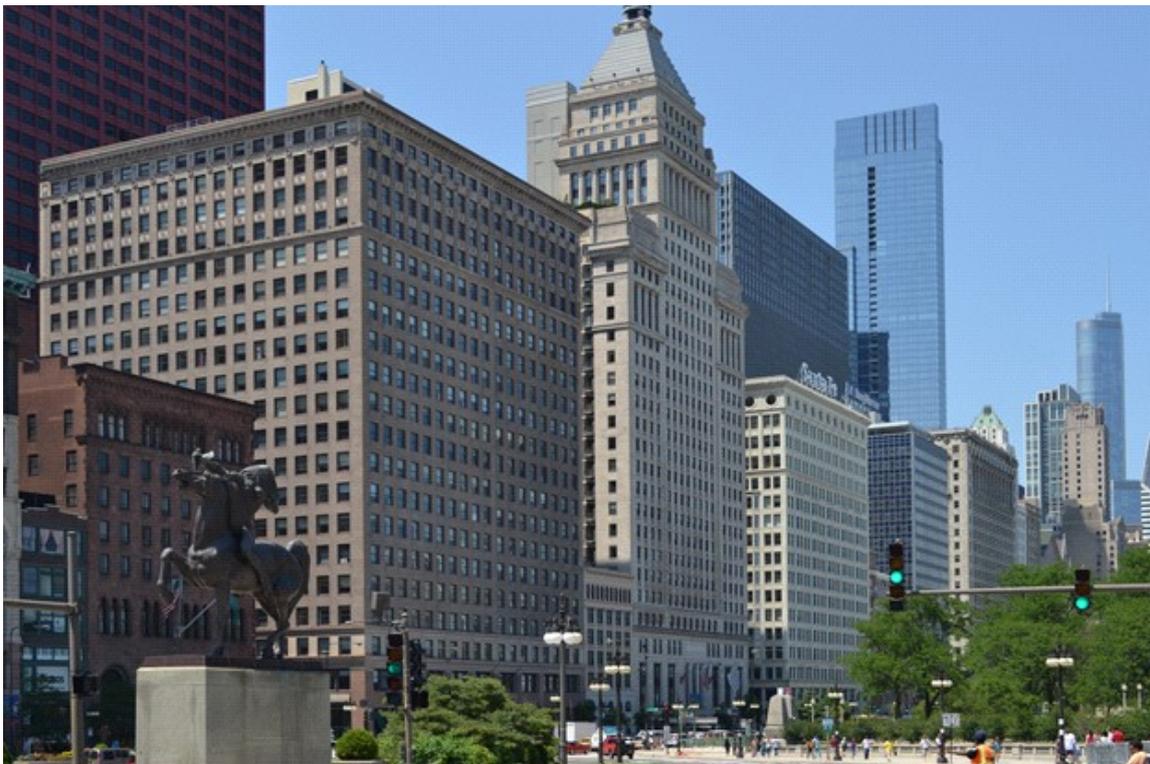


Figure 10: An In-depth Examination of Michigan Avenue Reveals the Significant Contribution of Skyscrapers in Establishing A Cohesive Boundary. It is Important to Acknowledge That the Presence of Architectural Uniformity Among Buildings Plays a Significant Role in Fostering Spatial Affinity, As tt Facilitates the Incorporation of a Unifying Urban Design Theme. The Establishment of a Cohesive Environment is Fostered by a Perception that the Structures are Interconnected and Mutually Complementary

Source: Photograph by author

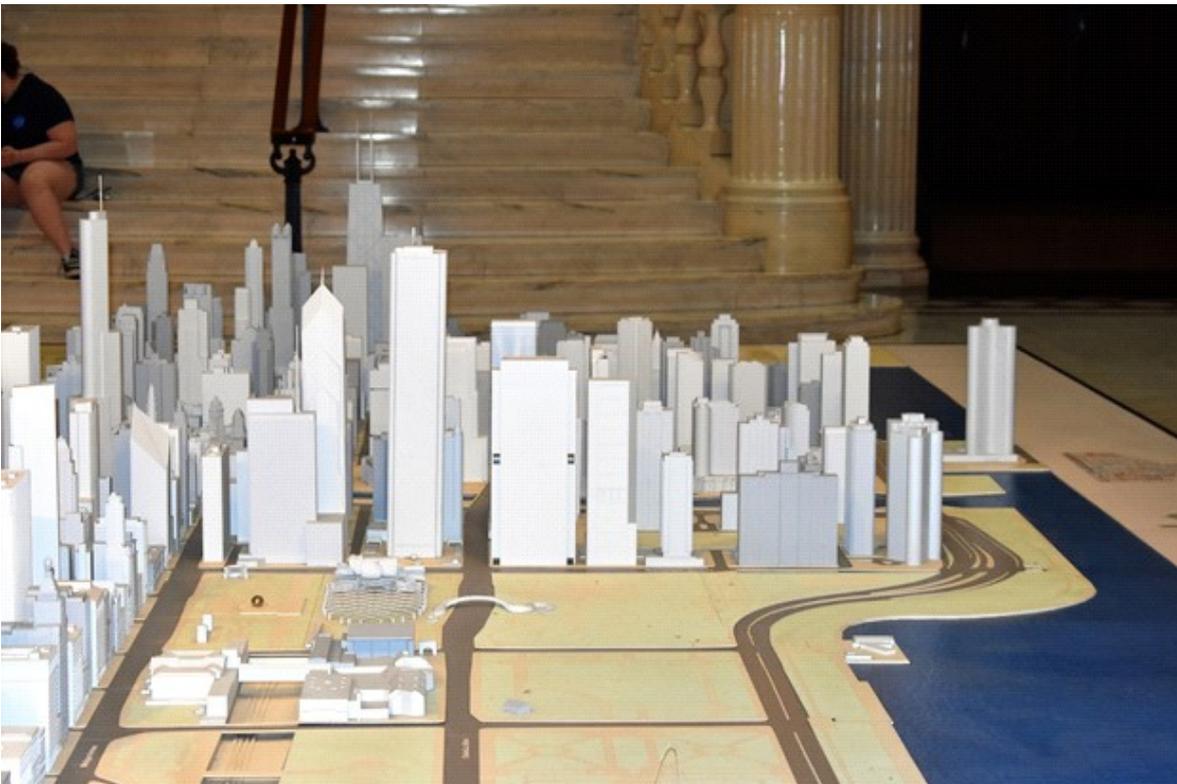


Figure 11: The Chicago Architecture Center (CAC) has Developed a Physical Model of the City of Chicago. Photographs Serve as Visual Documentation that Effectively Depict the Significance of Skyscrapers in Establishing Discernible Boundaries and the Thoughtful Considerations Involved in the Process of Placemaking

Source: Photograph by author



Figure 12: An in-depth Examination of the Chicago Skyline Reveals the Significance of Skyscrapers in Offering a Perception of Visual Confinement. The Crane Communications Building Effectively Connects the Two Boundaries of the Chicago Skyline, Specifically along Michigan Avenue and Randolph Street, by the Incorporation of a Slanted Roof. The Architectural Structure Garner Significant Notice as a Pivotal Nexus, Vital to the Achievement of Effective Place Formation

Source: Photograph by author

3.3. Clustering

The act of clustering tall buildings enhances the visual impact of the skyline through the creation of concentrated focus points. Clusters also serve as a means of representing the dynamic nature of a specific geographical area. Clusters have a crucial role in establishing a framework and organizational structure that facilitates the comprehension of urban



Figure 13: The Provided Images Depict Three Notable Skyscrapers, Namely the Willis Tower (uppermost), the John Hancock Center (middle), and the Legacy at the Millennium Park (lowermost), which Serve as Prominent Landmarks within the Chicago Skyline. The Success of Urban Placemaking is Contingent upon the Presence of Prominent Visual Indicators in the Skyline, in Addition to the Interactions that Occur at Street Level

Source: Photograph by author

morphology. There exist two distinct categories of clustering techniques, namely mono-focal and poly-focal clustering. A mono-focal skyline is characterized by the concentration of tall structures within a specific geographical area. Numerous contemporary cities originated with a unidirectional skyline, commonly mirroring the central metropolitan area. Nevertheless, with the growth and expansion of urban areas, there was a transformation and evolution of skylines into what is known as “poly-focal” configurations. Clusters serve as indicators of active processes occurring at the ground level. The visual stimulus elicits a response from individuals, so imbuing a sense of liveliness to the environment. It is imperative to allocate due attention to the development of captivating ground-level spaces and amenities that align with the clusters present in the skyline.

Supertall and megatall structures serve as prominent focal elements within a skyline. The cityscape of Chicago exhibits several prominent landmarks that contribute to its visual impact, including the Willis Tower, Aon Tower, John Hancock Center, Legacy at the Millennium Park, Vista Tower (now in its last stages of construction), as well as the Tribune Tower East (anticipated to commence construction in the near future) (Figures 13 to 20). Undoubtedly, the proposed Chicago Spire skyscraper, standing at a height of 610 m (2,000 ft), would have served as a prominent and commanding feature within the urban landscape of the metropolis. Regrettably, the project was terminated by the developer subsequent to their efforts in establishing the groundwork, owing to financial difficulties.



Figure 14: An Examination of Willis Tower Reveals Its Role as a Prominent Focal Point Within the Chicago Skyline. Attracting Tourists from Both Local and International Origins, This Architectural Structure is Widely Recognized as a Significant Contributor to the Sense of Place in its Surrounding Area

Source: Photograph by author

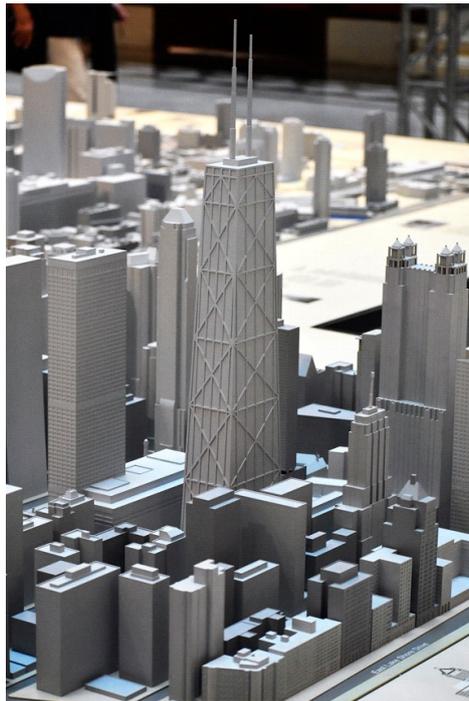


Figure 15: An Examination of John Hancock Reveals its Ability to Serve as a Prominent Focal Point within the Chicago Skyline. This Architectural Marvel is a Remarkable Achievement in the Field of Engineering, Serving as a Visually Captivating and Historically Significant Monument

Source: Photograph by author



Figure 16: An In-depth Examination of the Legacy at Millennium Park Reveals its Ability to Serve as a Prominent Focal Point Within the Chicago Skyline. The Luminous Complex and Impressive Stature of the Subject Attract Observers' Focus, all the While Maintaining Contextual Appropriateness, So Emphasizing Elements of Effective Placemaking

Source: Photograph by author



Figure 17: The Chicago Skyline is Enhanced by the Presence of the Aon Center, a Contemporary Supertall Structure, as Well as a Collection of Historic Tall Buildings. These Architectural Elements Serve as Captivating Focal Points, Offering Distinct Visual Cues and Contributing to the Establishment of a Unique Feeling of Place

Source: Photograph by author



Figure 18: The Vista Tower, a Supertall Structure that is Currently in its Last Stages of Construction, Establishes a Compelling and Commanding Focal Point. This Structure Serves to Enhance Chicago's Reputation as a Vibrant Urban Center, Reinforcing the Ongoing Process of Creating a Sense of Place

Source: Photograph by author

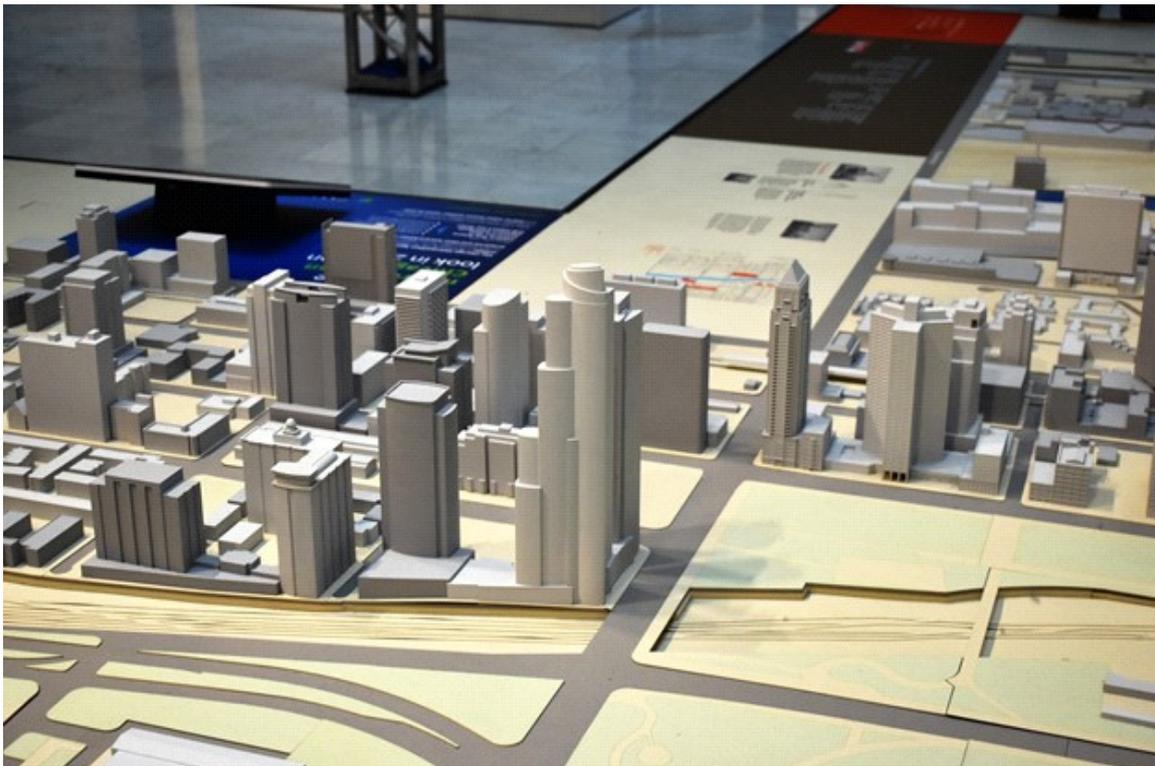


Figure 19: The presence of Grant Luxury Condo Towers on the City Skyline is Characterized by a Prominent and Assertive Focal Point. The Towers Remain Somewhat Out of Place, Displaying Little Design Coherence or Attention to Context. The Presence of These Elements Detracts from the Overall Sense of Place that is Otherwise Well Established by the Well-composed Chicago Skyline. The Task of Filling the Gaps within the Skyline, Characterized by Missing Teeth, will be Imperative in Order to Restore a Sense of Organization and Unity

Source: Photograph by author



Figure 20: The Construction of NEMA Chicago has Recently Concluded, and it has Effectively Utilized the Height Allowances Designated for the Development of the South Loop Area. This Node, Devoid of any Notable Architectural Significance and Exhibiting no Consideration for the Surrounding Structures, Serves as an Indication of Forthcoming Urban Expansion Along the Lakefront in the South Loop Area. The Lack of Adherence to Urban Design Principles has the Potential to Undermine the Credibility of Chicago’s Outstanding Efforts in Creating Meaningful and Vibrant Public Spaces

Source: Photograph by author

In a clustered urban environment, central towers exhibit a notable elevation over surrounding structures, so establishing discernible focal points. The aforementioned skyscrapers serve as prominent features of the urban skyline, hence it is imperative to prevent unregulated and disorderly pursuit of height in their vicinity. The City of Chicago has demonstrated a strong commitment to preserving the prominence of its skyline icons, which include iconic structures

such as the Willis Tower, John Hancock Center, and Aon Center. The presence of any height competition in the vicinity of these structures would result in spatial connections that are aesthetically unappealing, as depicted in Figure 13.

3.3.1. Ending Points

In addition to acknowledging the significance of centralities, it is imperative to underscore the starting and stopping points of a skyline. The architectural structures situated at the outer edges of a skyline are frequently distinguished by

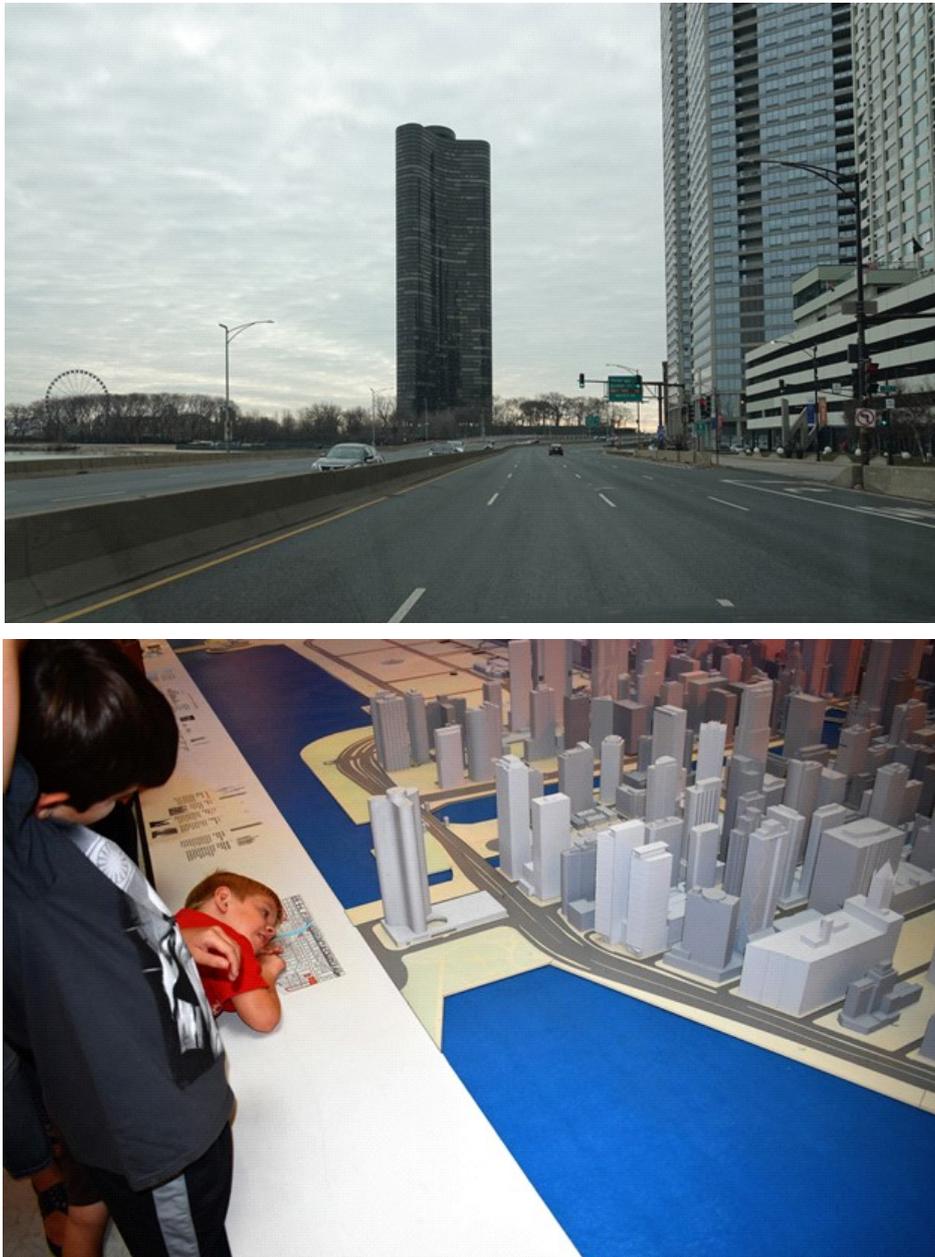


Figure 21: Lake Point Tower Presents a Visually Striking Addition to the Urban Landscape, Evoking a Sense of Surprise and Intrigue. The Child in the Snapshot Situated at the Bottom Inquired, “What is the Reason Behind the Solitude of this Tower?” As an Inadvertent Architectural Monument, This Structure Serves as a Compelling Illustration of the Distinctive Historical Narratives Associated with Structures and the Unanticipated Responses they Might Elicit as Time Progresses. The Regulatory Provision Permitting the Construction of Structures Situated to the East of Lake Shore Drive Was Promptly Terminated Subsequent to the Erection of this Particular Skyscraper

Source: Photograph by author

their comparatively reduced vertical dimensions, resulting in a more seamless integration of the skyline with the surrounding natural environment or “earthscape.” The urban design idea of Chicago’s skyline is exemplified by the arrangement of buildings, where structures located in the periphery exhibit a reduced height. Nevertheless, a unique and extraordinary circumstance arises in the case of Lake Point Tower, as it extends beyond the city’s skyline (Figure 21). The presence of a punctuated skyline contributes to the delineation of a city as an autonomous entity, hence augmenting the establishment of a distinct sense of locality on a grandiose level.

3.3.2. *Coherence*

The enhancement of imageability is achieved by the establishment of architectural coherence, which is manifested through the utilization of architectural styles, geometric principles, and intricate details. The dramatic impact on the skyline is a result of the harmonious integration of architectural elements. A scrutiny of Chicago’s skyline unveils that architectural uniformity is achieved by the presence of rows of historic buildings (refer to Figure 10, previously displayed). In general, the concept of architectural coherence serves to enhance the unification of various elements within a built environment, hence bolstering the perceptibility and establishment of a sense of place. On the contrary, the presence of incongruous architectural styles in closely situated buildings is likely to disrupt the visual coherence of the skyline. In certain circumstances, it may be necessary to make exceptions, necessitating thorough examination of urban design studies.

3.3.3. *Color Scheme*

It is recommended that proposed tall buildings adhere to the color schemes present in the urban and natural surroundings. The city of Chicago is characterized by a significant number of aged and towering structures featuring dark exteriors, which were influenced by the architectural style of Ludwig Mies van der Rohe. However, this particular color scheme has gradually lost popularity since the late 1970s, when lighter hues were introduced as a prevailing trend. In general, it is imperative to conduct a thorough examination of the juxtaposition between skyscrapers and the interplay of darker and lighter colors. Regrettably, the presence of the red 44-story CNA Plaza at 333 South Wabash Avenue in the Loop Community has a somewhat negative impact on the otherwise impressive Chicago Skyline. The barn-red hue stands in stark contrast to the surrounding urban landscape, capturing the instant attention of visitors because to its incongruity within the context of the impressive high-rise structures that dominate the city skyline. The design of the object in question was conceived during the 1970s, a period characterized by the waning influence of Modernism. This era witnessed a decreasing preference for simplistic, box-like rectilinear shapes. As a result, the developer opted to apply a red paint color to the structure in order to enhance its otherwise unremarkable and uniform aesthetic. By doing so, the building endeavors to assert its status as a significant landmark, despite its lack of inherent importance. This structure serves as an instructive example, illustrating the nuanced nature of placemaking as an artistic endeavor.

3.3.4. *Size*

There exists a positive correlation between the size (height and length) of a skyline and its urban imageability. In general, larger and uninterrupted horizons are more readily visualized compared to their smaller counterparts. The skylines of Chicago and Boston are notable and enduring due to their aesthetically pleasing alignment along coastline perimeters. Nevertheless, the characteristics that contribute to the enhanced imageability of Chicago’s skyline in comparison to that of Boston are mostly attributed to its greater vertical elevation and expansive horizontal span. Therefore, the presence of a vast skyline is expected to have either a favorable or unfavorable effect.

3.3.5. *Historic Depth*

The development of a skyline typically requires a significant amount of time. The expeditiously formed urban landscape, commonly referred to as “instant cities,” may exhibit a deficiency in capturing the historical essence of a particular location. As an illustration, the development of Dubai’s urban landscape commenced with the construction of the Burj Al Arab Hotel in 1999, which stands at an impressive height of 321 m (1,053 ft). Currently, Dubai boasts a significant accumulation of skyscrapers, making it one of the global leaders in terms of the sheer number and height of these towering structures. In contrast, the city of Chicago experienced a rather gradual progression in the construction of tall

buildings, over a period of 140 years. This process involved the incorporation of diverse architectural styles and the implementation of pioneering engineering techniques. The process of developing a “mature” skyline with a rich historical background in Chicago spanned several decades. The urban skyline effectively communicates the narrative of the city through its visual representation of multiple historical strata. The structure functions as a dynamic representation of the progression of architectural styles and advancements in engineering, creating a sense of location that is derived from a significant developmental process (Figures 10, 12, 14, 17).

3.3.6. Layered Skyline

The concept of a “layered skyline” emerges when tall structures are distributed throughout an expanse rather than concentrated along a linear axis. For example, the strategic positioning of towering structures along a coastal boundary will result in the formation of a skyline characterized by a singular layer, so potentially imparting an impression of fragility or insubstantiality due to the absence of visual depth. On the contrary, the presence of towering buildings in a given location contributes to a visually dynamic skyline, as it offers diverse viewpoints when observed from different vantage points. The enhanced vertical dimension in the urban skyline effectively conveys a more comprehensive and distinct perception of the surrounding environment. The visually appealing Chicago Skyline is a consequence of the concentration of high-rise structures situated in the city’s central business district. In contrast, the Gold Coast skyline in Australia exhibits a predominantly linear configuration along the coastline, resulting in a visually “shallow” skyline.

3.3.7. Major Landmarks

Without a question, the presence of towering structures plays a crucial role in shaping the visual profile of a city’s skyline. These reference points serve as prominent markers that compel readers to halt and reflect upon remarkable architectural design and inventive engineering. This approach enables individuals to decipher the visual indicators of a city’s skyline, thereby uncovering cultural connotations, symbolism, and historical significance. The emergence of advanced technology in the 21st century has facilitated the construction of skyscrapers that are attaining unprecedented heights. For instance, the Burj Khalifa stands at a towering height of 823 m (2,700 ft), while the Jeddah Tower, if successfully completed, would surpass the 1 km mark, reaching a height of 3,280 ft. Therefore, these architectural structures significantly delineate the urban horizon. These structures serve as prominent urban emblems that convey a country’s international standing. The incorporation of a megatall skyscraper, defined as a structure over 600 m (1,968 ft) in height, into an urban environment surely has a transformative impact on the city’s skyline. The towering stature of these structures poses the greatest threat to the urban skyline. It is noteworthy to mention that the construction of Burj Khalifa has significantly transformed the skyline of Dubai. Hence, it is imperative for urban planners to thoroughly examine the visual implications associated with the integration of megatall structures. Nevertheless, it is worth noting that Chicago currently lacks any megatall structures. Nonetheless, the renowned Willis Tower and John Hancock Center remain prominent icons and symbols of the city’s urban landscape (Mak *et al.*, 2001).

4. Pleasure and Interest

As elucidated in the preceding sections, the arrangement of visual elements holds paramount importance in shaping the imageability of a skyline. It is noteworthy that scholars in the field of environmental psychology have placed emphasis on supplementary design features that have the potential to elicit feelings of enjoyment and curiosity in relation to a skyline. For instance, the study conducted by Stamps *et al.* (2005) investigated the aesthetic appeal and level of engagement associated with the skyline, focusing on three primary factors: (1) setbacks and stepbacks; (2) height; and (3) width.

4.1. Setback and Stepbacks

The phrase “setback” pertains to the spatial separation between the base of a tall building and its surrounding features, including roadways and adjacent buildings. On the other hand, the term “stepback” pertains to the spatial separation between the outside edges of upper levels and the building’s perimeter. Consequently, structures that incorporate stepbacks often exhibit a visually staggered or tiered aesthetic. Stepbacks serve as a catalyst for viewers to actively interact with the unconventional and captivating forms, outlines, shading, and interplay of light inherent

in irregular geometry. Facilitating such forms of interaction is essential for achieving effective placemaking. Stamps *et al.* (2005) argue that the inclusion of building setbacks enhances the aesthetic appeal of skylines. According to Nasar and Terzanob (2010), setbacks serve as a visual stimulus and aid in preventing towers from appearing as boxy and monolithic structures. Previous studies have showed that the Willis Tower, the NBC Tower, and the Palmolive Building are renowned examples of Chicago skyscrapers that effectively employ setbacks to augment their aesthetic appeal.

4.2 Height

According to Stamps *et al.* (2005), introducing diverse building heights is proposed as a strategy to alleviate the visual monotony of a skyline. On the contrary, structures of comparable heights often give rise to a less awe-inspiring, uniform, and unvaried urban skyline. The evaluation of building heights should be conducted in relation to the spatial configuration of the urban environment. In general, it is advisable to arrange taller buildings in a manner that prioritizes the placement of shorter buildings in front of them. This arrangement ensures that all structures have the opportunity to benefit from unobstructed vistas of open areas, waterfronts, and parks. The investigation of a transition from the highest to the lowest point is warranted in order to analyze the decrease in visual blockage. Moreover, a sudden and significant alteration in vertical dimension can potentially communicate a sense of visual disarray. Tall structures may incorporate diverse vertical dimensions on a smaller scale in order to elicit sensations of enjoyment and captivation. One frequently raised issue pertains to the imposition of zoning restrictions that prescribe a particular range of building heights within designated regions, hence leading to the creation of partially level zones. In conclusion, it is imperative to conduct a thorough evaluation of the vertical dimensions of buildings in order to maintain the seamless spatial coherence of the urban skyline.

The city of Chicago serves as a prime example of a “classical” skyline, wherein the height of buildings is indicative of the existing real estate dynamics, specifically the direct correlation between building height and land costs. Therefore, it is common for the tallest structures to be concentrated in highly sought-after core areas. However, it is necessary to use caution while considering the concept of height order. In recent times, New York City has witnessed the occurrence of unfavorable instances, wherein the construction of super-slender structures has resulted in the emergence of aesthetically displeasing protrusions within the city’s skyline. As a result of significant escalation in land costs, property owners are opting to erect exceptionally tall structures on small parcels of land. New York City has several examples, such as:

- 216 m (709 ft) 100 East 53rd Street, with a ratio of 1:16
- 472 m (1,548 ft); Central Park Tower, with a ratio of 1:15
- 426 m (1,398 ft); 423 Park Avenue, with a ratio of 1:15; and the
- 435 m (1,427 ft) Steinway Tower, also known as 11 West 57th Street, with a ratio of 1:24.

The proliferation of slender skyscrapers that have emerged along the southern edge of Central Park has had a detrimental impact on the longstanding architectural character and overall appearance of the Midtown district in Manhattan. Naturally, it can be inferred from the aforementioned content in the Overview Section that flat skylines tend to be uninteresting and unappealing due to their lack of variation, which fails to engage visual curiosity.

4.3. Width

The introduction of diverse widths among buildings within a skyline has the potential to enhance their visual appeal and generate a sense of excitement, as opposed to a uniform width which tends to induce monotony. Nevertheless, numerous urban areas may have challenges in implementing this design approach due to their adherence to conventional layouts. The implementation of construction codes and regulations results in the creation of parcels with comparable dimensions, hence resulting in building footprints that exhibit nearly identical widths. This issue is further exacerbated by the inclination of owners and developers to maximize the development of their downtown site, leading them to typically construct buildings up to the maximum allowable limit on the lot.

The Chicago Skyline exhibits a diverse array of skyscrapers with varied heights and widths, creating a visually appealing composition. The concepts are visually depicted in Figures 22 to 26.



Figure 22: The City of Chicago Boasts a Dynamic and Captivating Skyline, Characterized by the Presence of Skyscrapers that Exhibit Diverse Heights and Widths. The City Presents a Wide Range of Perspectives, Captivating the Attention of Observers and Encouraging Participatory Urban Development

Source: Photograph by author



Figure 23: The Skyscrapers of Chicago Contribute to a Captivating and Vibrant Narrative. The Chronological Sequence of Skyscrapers in Chicago’s Skyline Serves to Underscore the City’s Status as a Prominent Hub of Ingenuity and Advancement on a Worldwide Scale

Source: Photograph by author

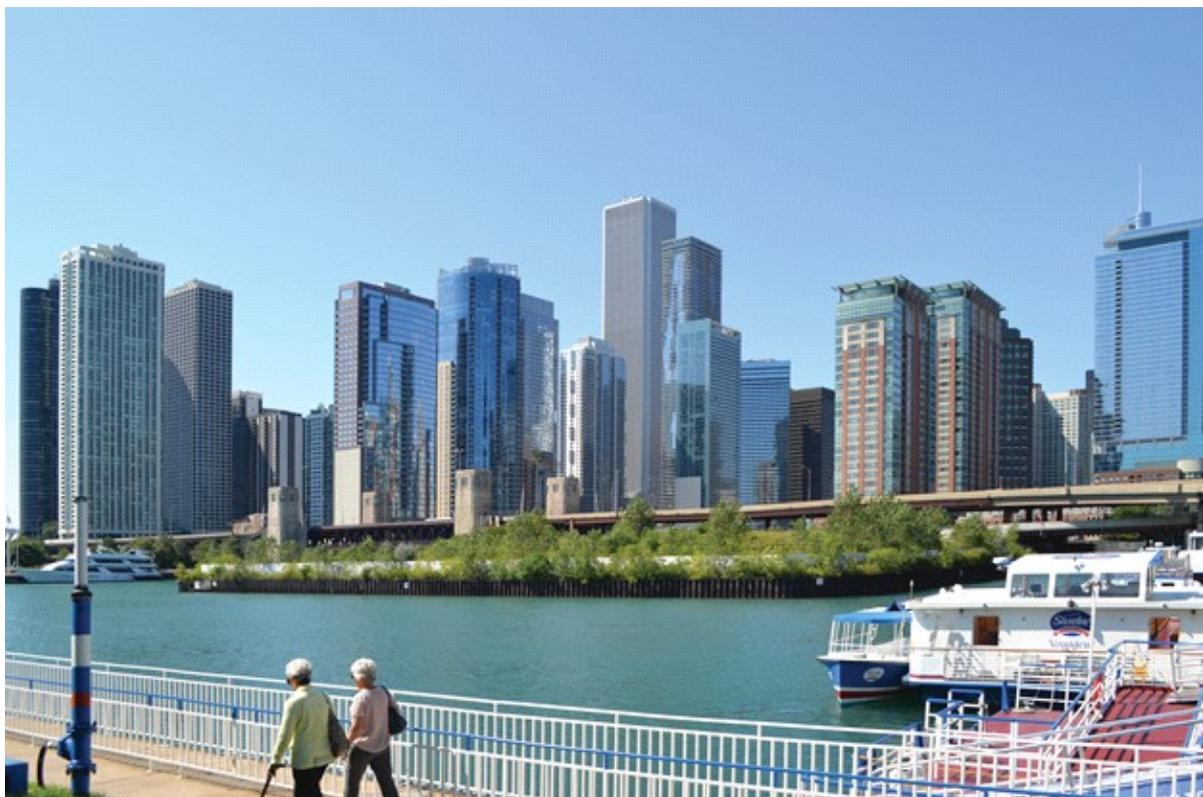


Figure 24: Chicago's Tall Buildings Exhibit a Wide Range of Architectural Styles, Encompassing Varied Designs, Heights, and Widths. These Structures can be Admired Both from a Distance and in Close Proximity

Source: Photograph by author



Figure 25: Notwithstanding their Considerable Magnitude, These Towering Structures Establish a Unified Feeling of Locale by the Deliberate Manipulation of Proportions, Colors, and Textures, all the While Preserving Their Distinctive Individuality Within the Urban Skyline

Source: Photograph by author

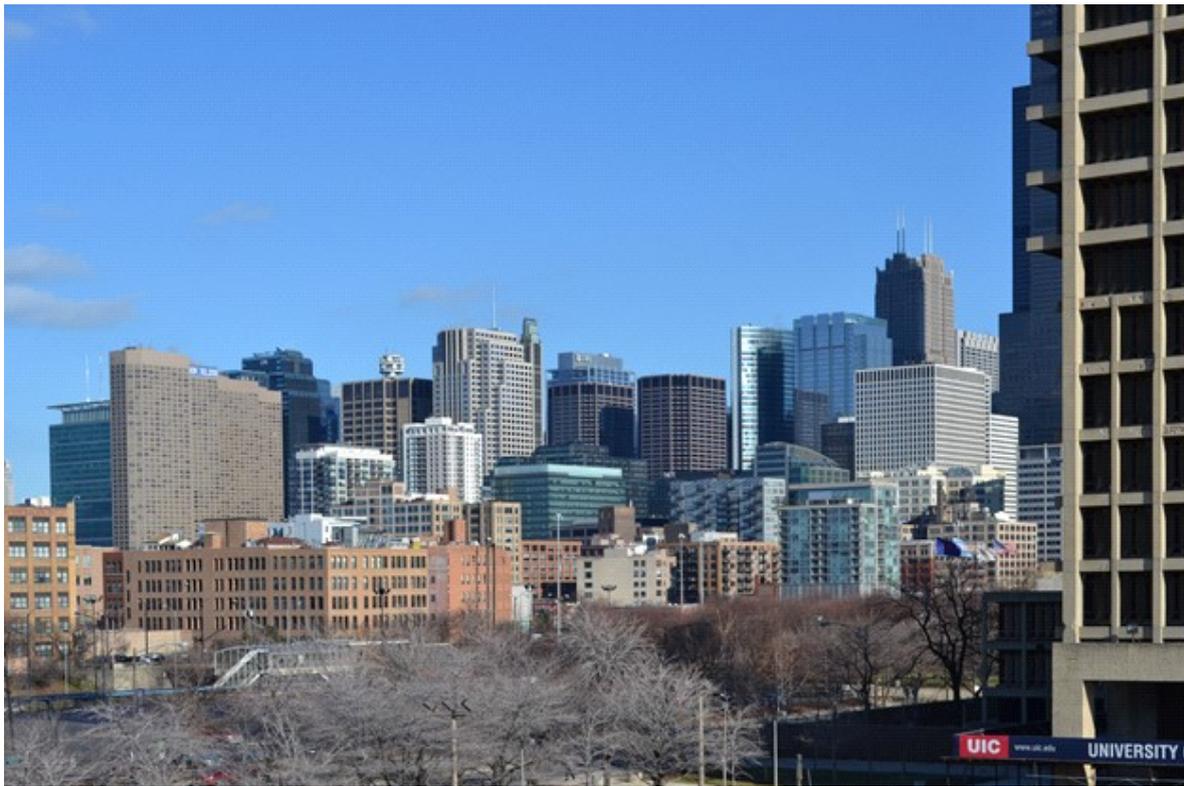


Figure 26: The Vertical Structures Exhibit a Visual Interlocking Pattern, Resulting in a Visually Appealing and Intricately Woven Urban Fabric. Chicago is Renowned for its Exceptional Architectural Landscape, Characterized by a Wide Range of Architectural Styles, Sophisticated Design Elements, and Seamless Transitions, which all Contribute to the Creation of a Remarkable Sense of Place

Source: Photograph by author

5. Conclusion

A skyline is a vital placemaking element that gives each city a unique identity. In a figurative sense, a skyline can be regarded as the distinctive “fingerprint” or “urban signature” that represents the accomplishments of a city and fosters a sense of civic pride, all the while serving as a tangible indicator of the city’s progress and development. When observed from far vantage points, the skyline provides an initial glimpse into the extensive historical background and the prospective development of a metropolis. Hence, the presence of urban designers is crucial in evaluating and molding the evolving skyline of a city. It is imperative that urban design rules and frameworks prioritize the promotion of visual coherence and aesthetic integration between tall structures and the overall cityscape. It is imperative that guidelines are established to ensure the comprehensive and cohesive design of tall structures, guided by a planned vision, rather than relying on impromptu and reactionary solutions. Directions for urban development can be effectively enforced by utilizing zoning ordinances and land use policies that specifically address various aspects such as building height, setback requirements, stepback regulations, contextual sensitivity, and considerations for environmental aesthetics. The study should also take into account prospective advancements in the urban area. In theory, it is imperative to conduct a thorough assessment of the visual implications associated with a prominent high-rise structure. This evaluation should encompass a full analysis of the building’s aesthetic impact from several perspective points and varying distances. Nevertheless, it is improbable that every building will fully optimize its visual impression from every conceivable viewpoint. Consequently, it is imperative to prioritize the prevailing perspectives, namely those observed from frequently traversed thoroughfares, pedestrian walkways, waterfront areas, and notable expanses of unobstructed land.

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