

# Landmarks to Lived experiences: A comparative study of Bahrain World Trade Center and Bahrain Bay Towers

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## Abstract

The potential reverberation of urban development on the cityscape through its building functions and heights generates a skyline, creating an aesthetic geographical pattern. Some have a tagline of being iconic, while others strive to attain it. The term 'iconic' is an emblem of expression, a mixture of traditional and contemporary design, and, foremost, the city's oldest superstructure. Bahrain has been fast progressing, exemplified by its wondrous skylines and a blend from old to new. Bahrain World Trade Centre is one of its so-called 'iconic' and has won many awards around the globe for its sustainability aspect, while others are popping out of the datum, one of them is the contemporary Bahrain Bay Towers, with a pride of being the tallest building in the skyline of Manama. This study conducts pilot research comparing two superstructures, focusing on the perceptions and sensory experiences of people living among them.

**Keywords:** Bahrain Landmark architecture, Lived experiences, Sense of Place, Urban design, User experience.

## 1. Introduction

With each new design that pushes the boundaries of engineering and technology, skyscrapers have developed from straightforward towering buildings to intricate architectural wonders. Their signature impact is their command over the skyline, inspiring amazement and admiration in everybody who sees them (Ganna, 2019). Known as the "ISLAND OF MILLION PALM TREES," Bahrain is an archipelago of 33 islands. Over the past 20 years, the region's built environment has changed, moving from a traditional architectural language to a transitional one and, more recently, a revivalist style influenced by the West. The Bahrain World Trade Center and Bahrain Bay Towers, two of the country's most famous structures, have taken on a new meaning in the current setting. They stand tall and command attention, projecting a festive image and developing a distinct brand (Suvarna and Allani, 2023). The country's objectives for modernization and the changing times are reflected in the new constructions that combine parts of traditional and contemporary architecture, replacing the traditional buildings with their distinctive qualities (Zaidan and Abulibdeh, 2021). These buildings have come to symbolize the economic might and modernism of cities all around the world. Additionally, they give the city a visual character, with each structure adding to its distinct skyline and giving both locals and tourists a feeling of place (Aziz Amen, 2017).

As one of the GCC (Gulf Cooperation Council) countries, Bahrain quickly underwent an urban change, carving out a reputation for itself as one of the nations that mapped architectural wonders (Vasilievna and Dmitrievna, 2017). This contributed to enhancing the city's overall quality of life and leaving a lasting impression on visitors. The most notable element of Bahrain's architectural landscape and a source of pride in the country's global perspective is the 50-story office skyscraper known as the Bahrain World Trade Center, which is housed in Manama and features twin towers. Another landmark, Bahrain Bay Towers housing a 68-storey five-star hotel, innovates while preserving fundamental cultural elements to reinterpret its immediate historic setting. Its residences, workplaces, and retail establishments offer subtle modernism, elegance, and a world-class address in Bahrain Bay. The paper's main goal is to present a succinct and straightforward comparison of the variations in perceptual and sensory experience among residents in the vicinity of Bahrain Bay Towers and the Bahrain World Trade Center, having said that the research objectives are as follows:

- The comparative research aims to investigate the architectural significance and influence of the Bahrain World Trade Centre (BWTC) and Bahrain Bay Tower (BBT).
- To investigate the impact of these landmarks and their iconic stature on urban fabric and community identity.
- To compare the user experiences in both structures to assess the intangible impact on the inhabitants.

The fundamental research problem is to comprehend how the Bahrain World Trade Center and Bahrain Bay Towers affect residents' senses and perceptions. This study aims to bridge a gap in the existing literature by comparing the experiences of people living or associated with these two iconic buildings in Bahrain. Although many studies exist that focus on the lived experiences of landmarks, they are unable to provide a clear comparison between the two identified superstructures. The study's findings will advance theoretical knowledge of the connection between sensory experiences, architectural design, and urban livability (Amen & Nia, 2020; Aziz Amen, 2022; Gün, 2023; Odunlade & Abegunde, 2023). The study illustrates architectural ideas and elements that help to create a more sustainable and livable urban environment by comparing the lived experiences of the residents near these two super buildings. Through the use of this information, architects and urban planners may better inform their future design choices, striving to construct structures that enhance the sensory experiences of their

occupants and the community at large in addition to being aesthetically pleasing. Greater user-centered design techniques can result in places that better suit the requirements and preferences of the people who use them by taking into account how locals view and engage with their built environment.

## 2. Urban Development

The factors that determine an urban infrastructure's imageability and symbolism are iconic buildings and constructed forms, as Tokat (2017) noted. The boundaries and scope of growth and changes in numerous industries have extended beyond limits in this period of technical improvement and infrastructural development. The World Trade Center, IT parks, and business parks have all benefited from this global expansion, which has also forced global phenomena such as migration, urbanization, and population rise. Vertical development becomes necessary and inevitable as a result of this (Arslan, 2020). A vertical or high-rise structure is more successful at fulfilling its functions by reducing the amount of ground covered and creating more breathing space in cities by accumulating less built-up area than the same area covered horizontally.

Furthermore, building an iconic skyscraper is the ideal way to define the character and feel of a city and create a landmark that will promote commerce, investments, and user interaction in a developing country like Bahrain, where land availability in densely populated urban towns and cities is a pressing issue (Yalçınkaya, 2020). These recognizable skyscrapers serve a crucial role in forming and preserving cities' skylines, which are magnificent displays of economic might.

Buildings with a lot of height have the ability to unite people. They can develop thriving communities within themselves in addition to acting as homes or places of employment. A strong sense of community is fostered among residents of many skyscrapers by the inclusion of common areas and amenities that promote social interaction. El Messeidy (2019) portrayed how urban density and the effective utilization of finite land resources contribute to the rise of skyscrapers. Skyscrapers enable the vertical development of urban living and working spaces as cities get denser. This trend is a reflection of the demand for accessibility and ease in city living as well as the societal change towards urbanization. According to Gruijters (2018), art and cultural components are frequently incorporated into the architecture of skyscrapers. Some have huge pieces of public art, while others are venues.

According to del Cerro Santamaría's (2020) research, skyscrapers are more than just regional icons; they are worldwide accomplishments that reflect people's common goals. In a time of climate change and erratic natural calamities, skyscrapers have come to represent adaptability and resiliency. A city's disaster preparedness plan must include modern designs since they integrate techniques to survive earthquakes, storms, and other environmental problems (Rahman et al., 2022). The cultural significance of skyscrapers as symbols of human endurance and determination is shown by their ability to withstand adversity and continue operating.

### 2.1 Perception and Experience

The user's perspective of the environment deepens as a result of concepts emerging in their mind from the primary sensory inputs. Perceptions of shape and space that are based on mental experiences are covered in the first category. Group two comprises concepts the user understands through mental interactions with non-physical structures. Reactions to such early perspectives occur on an intellectual, sensory, and emotional level. According to Khaleghimoghaddam (2023), form, function, and meaning are considered the perceptual components of the urban area and environment. According to Ng (2017), Bostancı, and Oral (2017), there are three factors that contribute to a better understanding of buildings: "form characteristics (the building's visible limit in a way that makes it completely distinguishable from its surroundings and has a unified shape; other factors like the building's complexity, colour, and lighting are less important); visibility characteristics (buildings located at intersections, adjacent open spaces, or on the side of highways are better seen and remembered); and functional characteristics (specific use leads to better identification)".

Consequently, skyscrapers will be necessary as landmarks due to their uniqueness, context-recognition ability, visibility from different parts of the city, and degree of contrast with the surroundings (Chung et al., 2022). Additionally, these buildings provide users with a unique importance by standing in contrast to a particular location and circumstance. A large number of the examples focus on small features. Towers, on the other hand, have semantic and symbolic properties. As per Kadar and Kadar (2021), high-rise buildings define a city's identity and have semantic meaning. Furthermore, high-rise building designs as iconic locations in a city depend on these symbols as they function as urban indicators that residents must be able to relate to (Lamb and Kwok, 2017). An awareness of how visuals are processed in the mind is one of the things that aids in identifying elements of one's environment.

With its altered skyline and distinct height from the surrounding areas, a skyscraper gives a scene's background a symbolic character. According to Ahmed and Ashour (2023), it is imperative to give serious consideration to the identity dimension of high-rise constructions. Residents' semiotic interpretation will be heavily impacted by their own experiences and prior knowledge; symbolic signals are simpler to understand than indexical and symbolic signals due to the signifier and signified's more objective relationship. The nature of postmodern architectural currents is clearly evident, according to Kalantari and Shepley (2021). Semiotic or emotive terminology may be used by occupants to

interpret buildings. These are moments when pleasure and arousal—interesting aspects of the environment—are feelings.

## 2.2 Comparative studies

Local cultural, political, and economic influences created the many forms and urban layouts of twentieth-century modernist architecture, sometimes known as the International Style. Taking into account both local and universal principles is crucial to fully comprehending this era's architectural legacy. Urban layouts of housing complexes built in the second half of the 20th century in Tychy, Poland, and Izmir, Turkey, are analyzed by Żmudzińska-Nowak and Güler Nakıp (2023) to investigate how modernism was adapted within a local context. By combining quantitative methods like research and surveys with qualitative techniques like case studies and observation, Żmudzińska-Nowak and Güler Nakıp (2023) use a mixed-method approach to their study. Their comparative examination, which they provide in their article, reveals the intricacies of the modernist architectural legacy and the complicated developmental processes that led to seemingly comparable spatial outcomes, as well as the peculiarities of local architecture.

The skyscrapers' long heights have a dynamic impact on the present landscape of urban areas, especially because of their large size and influence. They shall be a part that transforms the city's urban skyline and develops a change in its space, or they shall be an effective feature that grows into a significant landmark having its own set of values, preserves, and kinds. The balance between a tall building's built environment and itself is the most crucial factor to take into account while constructing it (Yang et al., 2021). The architectural elements of the tall structure's physical interaction with its surroundings require more consideration than with any other conventional construction. Reducing the harm to the existing built environment and historical urban heritage should be the aim, and this can be achieved by optimizing the functional landscape provided by its footprint on the site. Thus, the objective of the study by Ghazaleheniya and Akçay (2022) was to evaluate the impact of tall building integration into the historical and contemporary urban environment. On an additional basis, the study proves to provide a methodology that explains integration as a strategy to grow an effective urban instrument.

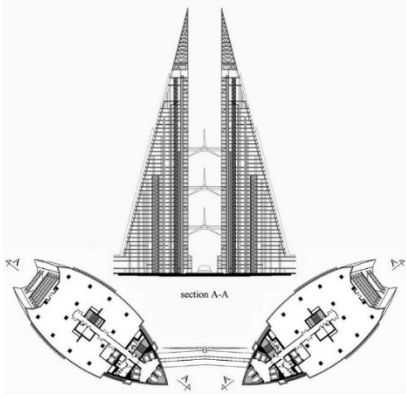

The eye and sight have always played a dominant role in architectural practice. But in the last few decades, the other senses—sound, touch, smell, and occasionally even taste—have become more and more important to architects and designers. These senses include proprioception, kinesthesia, and vestibular sense. Neuroscience research has developed knowledge on multimodal aspects of the human mind, although the knowledge has not been proven. A study by Spence (2020) has offered insights into the ability of human sense in architecture both for individual consideration and for other group studies. Recognizing the essentially multimodal character of perception is the only way to adequately explain a variety of unanticipated crossmodal interactions in the environment or atmosphere, such as the relationship between sound and perceived public space safety or between lighting hue and thermal comfort. On a similar basis, a study by Zoyatov et al. (2022) to inherit capitalization on interaction which has been discovered in the present times, the main focus on synaesthetic design shall be restructured based on crossmodal competency and multisensory aspects.

## 3. Research Methods

Qualitative data from in-depth semi-structured interviews served as the foundation for this study. A simple random sample technique was used to choose the 17 interviewees, essentially from the residents or visitors of the Bahrain World Trade Centre and Bahrain Bay Towers. A properly structured open-ended questionnaire was taken on to the respondents for collecting a mix of feedback from the residents. Additionally, the most preferable data was collected through the process of reviewing 36 publications and journals that were published between the years 2017 and 2024. The secondary thematic analysis method was utilized to examine qualitative data. Three major themes, which are based completely on the specified objective of the study, have been discovered from the data collected first, showing a resemblance between the outcomes of the diverse dimensions of past studies conducted on the same topic and the direction of the current study, the following themes have been discovered.

4. Results

**Table 1:** Results of Factors influencing (Source: Self-created)

Factors influencing the lived experiences	<p><b>Bahrain World Trade Center (WTC)</b></p>  <p>(Source: Szolomicki and Golasz-Szolomicki 2019)</p>	<p><b>Bahrain Bay Towers (BBT)</b></p>  <p>(Source: Author)</p>
Skyline Enhancement	<ul style="list-style-type: none"> <li>• Unique sail-shaped structure enhances the skyline.</li> <li>• Recognized as a symbol of the city and the country.</li> </ul>	<ul style="list-style-type: none"> <li>• Sleek and futuristic form enhances the skyline.</li> <li>• Blends well with the local surroundings.</li> </ul>
Local Surroundings and Cultural Reflection	<ul style="list-style-type: none"> <li>• Perceived as having predominantly Western design elements.</li> <li>• Represents Bahrain's Souq culture and identity.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognized as more tailored to its local surroundings, reflecting Bahrain's unique characteristics and culture.</li> </ul>
Incorporation of Western Design Elements	<ul style="list-style-type: none"> <li>• Predominantly features Western design elements like the sail-shaped structure.</li> </ul>	<ul style="list-style-type: none"> <li>• Described as having a more culturally apt and breathable design.</li> <li>• Reflects the desert feel of Bahrain.</li> </ul>
Sense of Identity and Symbolism	<ul style="list-style-type: none"> <li>• Recognized as a landmark associated with Bahrain's identity.</li> <li>• Represents Bahrain's Souq culture.</li> </ul>	<ul style="list-style-type: none"> <li>• Signifies Bahrain's culture and stands tall amidst its surroundings.</li> <li>• Offers a sense of cultural identity.</li> </ul>
Sustainability and Environmental Impact	<ul style="list-style-type: none"> <li>• Incorporates wind turbines for power generation, setting a standard for sustainable design.</li> </ul>	<ul style="list-style-type: none"> <li>• Offers open space and hosts public events, contributing to environmental and social sustainability.</li> </ul>
Noise levels and quality of life	<ul style="list-style-type: none"> <li>• Commercial activities in the lower floors contribute to noise levels.</li> <li>• Offers amenities and services.</li> </ul>	<ul style="list-style-type: none"> <li>• Busier and noisier due to public events and gatherings around it.</li> <li>• Provides amenities and opportunities.</li> </ul>
Personal Experiences and Memories	<ul style="list-style-type: none"> <li>• Visitors have personal memories associated with the building, such as visiting car showrooms.</li> </ul>	<ul style="list-style-type: none"> <li>• Visitors have cherished memories of the natural beauty and events at BBT.</li> </ul>
Future of Bahrain's Skyline	<ul style="list-style-type: none"> <li>• Expected to continue enhancing the city's skyline and attracting investment and tourism.</li> </ul>	<ul style="list-style-type: none"> <li>• Adds to Bahrain's pride and enhances the city's urban development vision.</li> </ul>

## 5. Discussions

**Table 2.** Themes based on the analysis (Source: Self-created)

Themes	Bahrain World Trade Center (WTC)	Bahrain Bay Towers (BBT)
Architectural Significance	<ul style="list-style-type: none"> <li>• Unique sail-shaped structure representing maritime heritage.</li> <li>• Symbolizes trade and commerce hubs.</li> <li>• Incorporates sustainable elements like wind turbines.</li> </ul>	<ul style="list-style-type: none"> <li>• Sleek, futuristic design blending with local surroundings.</li> <li>• Reflects modernization and Bahrain's unique culture.</li> </ul>
Urban Landscape and Community Identity	<ul style="list-style-type: none"> <li>• Recognized as a symbol of Souq culture and city identity.</li> <li>• Enhances urban landscape with a distinctive silhouette.</li> </ul>	<ul style="list-style-type: none"> <li>• Tailored design reflects local culture and adds to the urban landscape.</li> <li>• Foster's community identity through modernity.</li> </ul>
User Experience and Design Effectiveness	<ul style="list-style-type: none"> <li>• Offers amenities but faces noise levels from commercial activities.</li> <li>• Recognized for sustainability with wind turbines.</li> </ul>	<ul style="list-style-type: none"> <li>• It provides open spaces and hosts events, but it can be busier and noisier.</li> <li>• Contributes to environmental and social sustainability</li> </ul>

The Bahrain World Trade Center's (WTC) efficient sail structure has been praised by local residents, who have said that the precise sale of fashion design jogs reminded them of Bahrain's maritime background. Such feeling has been consistent within the main body of study, which has been provided on the vitality of architectural symbols of the city environment (Chung et al., 2022). As for the other responses, some said that the WTC symbolized the main function of the city as a hub for alternate trades. The same is true for the studies that display how famous structure presents a metropolitan's main cultural know-how and monetary strength (Arslan, 2020). Sideways, the locals mentioned the Bahrain Bay Tower's contribution to the urban panorama, with one stating that the BBT's glossy layout blend is proper and effective with the surroundings. It critically shows the knowledge about context designs in which homes are tailored to the environment for developing location sense, as mentioned by Spence (2020). On a further basis, a resident also stated the BBT displayed modernization and Bahrain's precision in lifestyle. The studies emphasize the place of the base in expressing cultural identity and modernity (Ghazaleheniya and Akçay, 2022).

## 6. Conclusions & Recommendations

Having a comparative look at the Bahrain World Trade Center in Bahrain Bay towers provided basic insight into the vitality of the architecture, the impact of the city, and other consumer studies. The response of the citizens, as detailed by the WTC sail, structured the design of Bahrain's maritime heritage and the responsibility to represent the position of the town as a major trade station. The BBC's glossy and cutting-edge finish was also praised, alongside shedding light on the architectural symbol that structured the landscape of the city and developed a community identity. The analysis also discovered limitations that involved noise tier from the activities in firms inside WTC and busy environment across BBT as a result of public events. Despite such limitations, both the systems contributed to the main environment of the city and offered benefits that improved excellence in the lifestyle of citizens and the traffic. Based on the outcomes of the study, recommendations can be developed for structuring the architectural vitality and user experience of both the structure:

- Strategies to eliminate noise: Implement tactics that help eliminate the noise levels in the WTC, similar to soundproofing or planning commercial events during peak hours (Vreman et al., 2023).
- Managing public space: Improving the space management of the public around the BBT for maintenance of equilibrium between hosting events and thereby ensuring peace among the residents (Said and Tempels, 2023).
- Interpreting culture: Providing opportunities to interpret culture and gather buildings similar to the exhibition to deepen the know-how of visitors on the heritage of Bahrain and its identity (Lombard and Boksmati-Fattouh, 2020).
- Strategies to enable sustainability: Making sustainability plans the main priority in both the structure asked. As Kramer (2016) stated, this is to promote an energy-efficient strategy and incorporate green space to minimize environmental effects, thereby contributing to the robustness of the city.
- Engaging with communities: As stated by McNeish, Albizu-Jacob and Memmoli (2021), actively engaging with the local community to gather feedback and ensure that the future plans link up to the requirements of the residents, which can help in developing a sense of responsibility and pride in the landmarks.



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### Conflict of Interests

The Author(s) declare(s) that there is no conflict of interest.

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