

## **Fusion and Transformation: The 1950s Architectural Metamorphosis of Riyadh, Saudi Arabia**

**Naif Alghamdi<sup>1</sup>      Abdulaziz Alzahrani<sup>2</sup>      Fahad Alotaibi<sup>3</sup>      Faisal Alosaimi<sup>1</sup>  
Ali Ajlan<sup>1</sup>      Muhannad Alkudaywi<sup>4</sup>      Mohammed Alnaim<sup>5</sup>**

<sup>1</sup> Department of Architecture and Building Sciences, College of Architecture and Planning, King Saud University, Riyadh, Saudi Arabia.

<sup>2</sup> Department of Architecture, Faculty of Engineering, Al-Baha University, Al-Baha, Saudi Arabia.

<sup>3</sup> Department of Architecture, College of Architecture and Planning, Qassim University, Buraydah, Saudi Arabia.

<sup>4</sup> Assistance Agency for Infrastructure Projects, Riyadh Regional Municipality, Riyadh, Saudi Arabia.

<sup>5</sup> Department of Architectural Engineering, College of Engineering, University of Hail, Hail, Saudi Arabia.

*naag@ksu.edu.sa, Azahrani@bu.edu.sa, F.alotaibi@qu.edu.sa, falosaimy@ksu.edu.sa, aajlan@ksu.edu.sa, malki-wi@alriyadh.gov.sa, Mm.alnaim@uoh.edu.sa*

(Received 7/7/2024; accepted for publication 17/10/2024.)

**Abstract:** This study explores the transformation of Riyadh's architectural landscape in the 1950s, a pivotal decade for Saudi Arabia marked by rapid urbanization and cultural integration. As the nation's newfound oil wealth catalyzed its metamorphosis, Riyadh emerged as a canvas displaying a unique blend of traditional Islamic heritage and modernist architectural influences. The research analyzes key buildings' exterior façades and architectural configurations from this era, highlighting the integration of new construction materials and methods alongside traditional design elements. Through in-depth analysis of selected case studies, including prominent government buildings and residential structures, the study reveals a nuanced fusion of international modernist styles with local and Islamic architectural elements. This synthesis reflects the societal and cultural shifts in Saudi Arabia during the 1950s as the country grappled with its identity amidst global influences. The findings of this research contribute to understanding the complex interplay between tradition and modernity in Saudi Arabia's architectural evolution. They illuminate how architectural trends of the 1950s in Riyadh were not merely aesthetic choices but were deeply intertwined with the socio-cultural and economic dynamics of the time. The study underscores the importance of contextualizing architectural developments within their broader historical and cultural settings. It offers insights into the ongoing dialogue between the past and future in Saudi Arabia's urban landscape.

**Keywords:** Architecture; Typology; Geometry; Modern; Heritage; Riyadh; Saudi Arabia.

## 1. Introduction

The mid-twentieth century marks a watershed moment in Saudi Arabia's architectural history, indicating a profound shift away from the country's entrenched traditional design ethos toward embracing contemporary influences (Jobran, 2022). The infusion of newly discovered oil wealth and intensifying interactions with the Western world hastened this evolution significantly (Alkhabbaz, 2018). This era's dominant architectural ethos found its identity in a remarkable fusion, deftly weaving the threads of traditional Islamic architectural heritage and Modernist thought. This fusion gave birth to a distinct architectural tapestry that artfully mirrored the country's intricate collaboration between embracing modernization and preserving its cultural heritage (Asfour, 2009). This harmonious amalgam is most vividly depicted through the lens of this epoch's exterior compositions, geometrical arrangements, and proportional configurations (Moscatelli, 2023). Therefore, the study intends to investigate and dissect the intricate tapestry of architectural trends that dominated Saudi Arabia in the 1950s. This investigation must delve into the dynamic interplay of Indigenous architectural heritage and the influx of global architectural paradigms. Furthermore, an in-depth examination of the implications of socio-cultural constraints on architectural endeavors is required to comprehensively understand this transformative era.

During this time, Riyadh's architectural settings remained consistent with global trends in the field, primarily influenced by the modernist movement, which emphasized the principle of 'form following function'. Nonetheless, the Saudi context added a distinct nuance, guiding this architectural trajectory towards a harmonious integration with Islamic and local architectural legacies (Saleh, 1998a). This complex interplay resulted in the emergence of a contextualized iteration of modernism, which artfully reconciled the style's pragmatic minimalism with the imperative of honoring traditional sensibilities and responding to the local environment (Gharipour, 2011). This convergence gave rise to a distinct architectural ethos in which the stark functionality of modernism blended seamlessly with the visual idioms and ecological imperatives inherent in the Saudi landscape.

The sociocultural context, in which architecture operates, accentuates the intricate relationship between local essence and global dynamics (Saleh, 1998b). Societal norms, religious precepts, and prevalent cultural values had a significant impact on architectural practices. Negotiating these constraints while pursuing innovative design expressions was the challenge. These values necessitate a look at how architects navigated these complex parameters, whether by subtly incorporating modern elements into traditional frameworks or boldly forging entirely new architectural vocabularies. (Al-Farsy, 2012).

The mid-20th century saw significant changes in the architecture and urban development of Riyadh, Saudi Arabia. It was a period when traditional Islamic architectural features blended with design concepts. This era in the 1950s saw a significant transformation in Riyadh's architectural identity due to the country's newfound oil wealth and increased connections with the Western world. The architectural landscape during this time reflected a mix of heritage and contemporary influences, showcasing the nation's effort to preserve its cultural roots amidst rapid urban growth and global influences.

As a result, Saudi Arabia's architectural evolution during the turbulent decades of the 1950s became an enthralling exploration of the interplay between entrenched tradition and progressive modernity. The influx of newly discovered oil wealth fueled rapid urbanization and extensive infrastructure expansion, ushering in foreign architects and architectural firms. (Mahgoub, 2007). Traditional Saudi edifices share space with cutting-edge modernist creations, and as a result of this convergence, they create an architectural landscape with an engaging mingling of various stylistic sensibilities. The crux of this study, in light of this dynamic context, is the meticulous examination of selected cases of convergence. Each of these examples, a microcosm of influences, was crucial in shaping the essence of architectural style during this era. The aim is to unravel the intricate weave that binds tradition and modernity by delving into these instances of synergy, illuminating the nuanced tapestry that makes the architectural landscape of this period a captivating chapter in Saudi Arabia's history.

The development of architectural trend during this period tells a narrative of adaptation and innovation. Saudi Arabia underwent a noticeable

transformation from the traditional architectural forms, which were once distinctive and deeply rooted in regional traditions (Saleh, 2001a). The introduction of modern architectural elements, fueled by the influx of global ideas, resulted in a departure from traditional aesthetics. The use of novel building materials, construction methods, and new spatial arrangements shaped this architectural transformation. As a result, it is critical to explore how these external influences intersected with or diverged from Saudi architectural identity.

Despite its significant role in shaping the modern architectural scene of Saudi Arabia, the phase of architectural evolution in Riyadh during the 1950s has not received the thorough examination it deserves. There has been limited exploration into the details of its design elements, materials used, and construction techniques. Additionally, the social, cultural, and economic factors that impacted choices during this transformative period have yet to be fully investigated. This research, therefore, is of utmost importance in filling these gaps in our understanding of Saudi Arabia's architectural history.

Hence, this study aims to delve into Riyadh's transformation during the 1950s by focusing on the exterior appearances and structural designs of key buildings from that era. The research seeks to uncover how the incorporation of building materials and techniques, alongside traditional design elements, led to a unique architectural style that mirrored the societal and cultural changes in Saudi Arabia at that time. Exploring the relationship between tradition and modernity in the history of Saudi Arabia, this research will examine select government and residential buildings to illustrate the significance of contextualizing architectural transformations within broader historical and cultural frameworks.

The present study begins by analyzing the context, significance, and background. The subsequent section entails a comprehensive examination of relevant scholarly literature. The third section outlines the methodological framework utilized in this study. The fourth section examines specific case studies, while the fifth section delves into the architectural trends observed in Riyadh during the 1950s. The concluding section of this study synthesizes the findings, offering insights into the architectural evolution of Riyadh during the specified decade.

## **2. Literature Review: A Historical Perspective**

The 1950s oil prosperity impacted Riyadh's architectural development, resulting in a change from traditional Najdi designs to a more modern architectural style. The initial mud-brick dwellings, constructed using indigenous resources as a response to the challenging desert environment, eventually yielded contemporary edifices composed of concrete and steel. This architectural transition served as a representation of the city's swift economic expansion and its assimilation into international society. The city's new aesthetic exemplifies Western architects' influence and adherence to modernist principles, which are distinguishable by their emphasis on functionality, simplicity, and the use of cutting-edge materials. This study aims to analyze the equilibrium that Riyadh achieved in terms of modernization and cultural identity by incorporating traditional and Islamic architectural features alongside modernist designs. Emblematic buildings like the Riyadh Railway Station exemplify how modern forms and historical motifs can coexist. Furthermore, this study explores the idea of non-Western modernity while acknowledging the significant contributions made by Arab architects who drew inspiration from their European educational experiences. Architectural contact zones wherein Western and non-Western design elements intersect, emphasizing the dynamics of cultural exchange and the potential for overshadowing indigenous traditions.

### **2.1 Riyadh in the Era of Modern Architecture**

Traditional Najdi architectural heritage significantly influenced the dominant architectural style during the early stages of the 1950s (Elsheshtawy, 2021). Notably, mud-brick homes were widespread and distinguished by their straightforward design and intricate decorative motifs (Al-Naim, 2008). These structures utilize locally sourced materials while being meticulously crafted to provide relief from the harsh desert climatic conditions. However, a watershed moment occurred in the mid-1950s, when the influx of oil wealth catalyzed a rapid transformation of the urban landscape, propelling Riyadh into an era of unprecedented expansion and evolution (Al-Rasheed, 2010).

It is crucial to acknowledge that Riyadh's growing wealth from oil significantly impacted the

city's architectural trajectories (Al-Hathloul, 2004). The infusion of substantial financial resources facilitated the introduction of novel construction materials and advanced techniques, ushering in a significant departure from the previous reliance on traditional mud-brick craftsmanship (Alsoliman, 2023). This watershed moment saw the rise of modern structures made of the sturdiness of concrete and steel, signaling a departure from the previous paradigm. (Vitalis, 2009). This shift was not limited to physical materials; it reflected a broader shift in architectural philosophy, with Western influences gradually permeating the city's aesthetic and structural ethos.

Riyadh's architecture underwent a profound transformation during this time, effectively encapsulating the changing socioeconomic underpinnings. The change from mud-brick homes made to withstand the weather to tall concrete and steel buildings influenced by global design shows how oil-driven prosperity has changed the shape of cities and how architecture is made. This architectural style shift reflects the city's economic growth and symbolizes its integration into the global community. The construction of modern structures in Riyadh serves as a testament to the city's aspirations for progress and its desire to establish itself as a prominent player on the international stage.

The contours of modernist architectural paradigms began to unfold gracefully within Riyadh's urban fabric in the mid-1950s. During this time of change, there was a clear shift in architectural style. Government buildings, residential neighborhoods, and commercial buildings all took on the style of modernism, characterized by a focus on functionality, unadorned simplicity, and new materials (Hariri-Rifai & Hariri-Rifai, 1990). During this epoch, the resonating echoes of Western architectural influences reverberated with notable resonance. These influences were particularly evident in the designs of prominent architects such as Ludwig Mies van der Rohe, Le Corbusier, Oscar Niemeyer, Walter Gropius, Frank Lloyd Wright, and Jørn Utzon, who promoted the principles of modernism and played a significant role in shaping the architectural setting of the time (Doumato, 1980). Their minimalist aesthetics and emphasis on clean lines, open spaces, large horizontal windows, white or cream façades, and the use of reinforced concrete and steel became synonymous with the era, leaving a lasting impact

on architectural practices worldwide.

Therefore, Arab architects have developed a distinctive modern architectural style due to the significant architectural impact they have witnessed, as notable examples like Sayed Karim demonstrate. There has been extensive scholarly discussion regarding the notion of Arab modernity, suggesting its existence as a comparable phenomenon to European modernity. (Akkach, 2014). This study aims to provide insight into the architectural endeavors of renowned Arab architects, whose professional development was influenced by their European education. Subsequently, these architects incorporated the principles of early modernism into their architectural projects in Gulf cities, with a particular emphasis on the urban landscape of Riyadh.

The influx of foreign architects and engineers hired to envision and actualize the growing city's spatial transformation was a case in point to fuel this architectural transformation, which was deeply rooted in modernist principles (Alnaim & Noaime, 2022). The modernist style's introduction, with its clean lines, practical forms, and deliberate lack of excessive embellishment, gave the city's architectural evolution a new life. The wave of Western architectural proclivities rushed through Riyadh's architectural veins, redefining its skyline and ushering in a contemporary visual narrative (Giddings et al., 2023). These foreign architects and engineers brought fresh perspectives and innovative design principles to Riyadh, blending traditional Saudi Arabian elements with modern aesthetics. The city's skyline became a testament to the fusion of cultures, as towering skyscrapers and sleek buildings coexisted harmoniously with historical landmarks.

This architectural zeitgeist represents the city's broader modernization journey, in which the structural language used reflects the intersection of cultural dynamism and progressive aspirations. This era not only etched modernist principles into Riyadh's architectural canvas but also left an indelible imprint of globalization's influence on the city's very silhouette, from government edifices that exude functional elegance to residential quarters that prioritize ergonomic living and commercial spaces characterized by aesthetic pragmatism. (Al-Ibrahim, 1995). The architectural transformation of Riyadh is a testament to the city's commitment to embracing the future while preserving its rich cultural heritage. This can be seen in the

seamless integration of traditional elements with contemporary design, creating a harmonious blend that embodies the spirit of a modern metropolis.

## 2.2 Preservation of Cultural Identity

While international architectural styles found their place in the city's evolving aesthetic, a parallel and deliberate effort was underway to preserve and harmoniously blend traditional and Islamic architectural elements. This intricate balance highlighted Riyadh's nuanced approach to architectural development. The city's architectural canvas board is the imprint of a steadfast commitment to seamlessly integrate elements that resonate with its cultural and religious identity amid the influx of global influences (Isenstadt & Rizvi, 2008).

The continuity of courtyards, an inherent hallmark of traditional Najdi architectural heritage, was a prime example of this thoughtful fusion. These courtyards were deftly interwoven into the ever-changing urban fabric, enduring relics of architectural wisdom. They created a tangible link to the city's historical essence by considering both practical considerations and climatic adaptability. (Helmy, 2008). These open spaces, rooted in functional wisdom, refer to a time when architecture was inextricably linked to its surroundings. These courtyards, masters of thermal comfort, orchestrated the movement of refreshing zephyrs, providing relief from the relentless desert sun. Nonetheless, their significance extended beyond climate control (Elsheshtawy, 2008). They stood as places of intimacy amid the bustling cityscape.

These influences resulted from a fusion of styles that combined modernist principles with local and Islamic traditions. Many of Riyadh's buildings from this era exhibit this architectural hybridity, with modernist forms and materials coexisting with traditional design elements. The Riyadh Railway Station, for example, was built in the late 1950s and combines a modern, streamlined design with traditional Islamic arches and geometric patterns. Similarly, many residential and commercial structures from this era feature modernist forms embellished with traditional Najdi decorative motifs. This stylistic fusion reflects Riyadh's broader societal and cultural transformations during this period, as the city navigated tensions between tradition and modernity, local identity, and global influences (Saleh, 2001b).

This harmonious interplay of architectural styles—where the universal met the traditional—exemplified Riyadh's architectural evolution. While embracing modern aesthetics, the city remained committed to paying homage to its past. While the city embraced the new ideas and technologies brought about by modernization, it also preserved its distinct cultural and architectural heritage, resulting in a distinctive architectural setting that still characterizes Riyadh today. As a result, Riyadh's commitment to upholding its legacy while embracing an evolving future is reflected in this story of converging influences.

## 2.3 The Story of Non-Western Modernity

In recent decades, there has been a scholarly investigation into an alternative dimension of modernity that diverges from a Eurocentric perspective. The studies above have been of utmost importance and have played an essential role in deepening the understanding of architectural and urbanistic practices in non-western countries (James-Chakraborty, 2014; Nitschke & Lorenzon, 2020; Stanek, 2020). This study investigates the process, considering the continuous reevaluation of modernism and the increasing scholarly attention toward the documentation of histories of non-Western cultures.

Sayed Karim's work serves as a notable exemplification of this phenomenon. By examining Sayed Karim's work, the objective is to uncover an alternative perspective on the concept of modernity as it pertains to the city of Riyadh. This inquiry explores the intersection between modern design philosophy and local context, specifically examining how local materials might offer a fresh interpretation of contemporary architectural structures inside urban environments.

Cross-cultural studies provide a useful framework for comprehending and evaluating the current architectural environment, characterized by blending Eastern and Western influences. The period under consideration has been subject to thorough examination within cultural and encounter studies. (Said, 2012). However, a recent increase in scholarly research has shed light on the impact of Western cultural design principles on regions often identified as the global south. Avermaete and Nuijsink (2022) were the first to use the term "architectural contact zones," drawing their inspiration from Mary Louise Pratt's



scholarly contributions. The zones in question are characterized as social spaces where cultures intersect, conflict, and engage, frequently within contexts marked by notable power imbalances. The user provided a numerical reference (Avermaete & Nuijsink, 2021). These architectural contact zones are platforms for exchanging ideas, knowledge, and aesthetics between Western and non-Western cultures. They provide an opportunity for cultural hybridization and the emergence of new design expressions that challenge dominant Western paradigms. (Pratt, 2012). However, it is important to critically examine the power dynamics within these contact zones, as Western cultural design principles often overshadow and marginalize indigenous or local design traditions. This can perpetuate a cycle of cultural dominance and homogenization, undermining the diversity and richness of architecture.

Although the exploration of tracing modern heritage history through the work of foreign architects may need to be more widely discussed, a substantial body of literature delves into this subject matter. The Conceptualization and Development of Modernity through the book "Architecture in the Arab World 1945–1973" by Arbid and Oswalt (2022) examines the diverse forms of modern architecture across various locations in the Arab world. The authors explore the influences of modern architecture in the Arab world by analyzing the biographies of specific buildings (Arbid & Oswalt, 2022). This comprehensive analysis provides valuable insights into the impact of foreign architects on the development of modern architecture in the Arab world. By examining the biographies of specific buildings, Arbid and Oswalt shed light on how these architects shaped the architectural landscape in different Arab countries.

Additionally, their research helps foster a broader understanding and appreciation of the cultural exchange and cross-pollination between foreign architects and local communities during this period. Also, Fabbri and Al-Qassemi (2022) present a comprehensive analysis of architectural development in the Arabian Peninsula during the era of modernization. The research provides valuable insights into this timely and intriguing topic. This study presents a thorough and scholarly examination of the urban environments in the Gulf States, encompassing prominent cities like Riyadh, Dubai, Doha, and Kuwait City (Fabbri & Al-Qassemi, 2022).

### 3. Research Methodology

This research examines the prevailing architectural trend in Riyadh, Saudi Arabia, during the 1950s, to discern its distinctive attributes. The research paradigm employed in this study is pragmatism, as Creswell (2017) (Creswell & Creswell, 2017) recommended. This paradigm emphasizes the practical aspects of the inquiry, explicitly addressing the "what" and "how" questions to produce meaningful results. The research design, as depicted in (Figure 1), consists of three distinct stages. The selected case studies were initially examined through a comprehensive review of relevant literature, analysis of visual materials, including 2D and 3D drawings, and direct observation conducted during site visits. The subsequent phase encompassed a comprehensive analysis of these cases through content analysis, architectural drawings, and photo analysis. Ultimately, the investigation reached its culmination by integrating the discovered results and drawing conclusions that directly corresponded to the research inquiry, thereby shedding light on the unique architectural components of the examined era.

#### 3.1 Case Studies Approach

Consequently, this research uses case studies approach so as to achieve the research objectives. Case study as 'a choice of what is to be studied' (Stake, 2005) (Stake, 2005) or as 'a method of research' (Yin, 2014) (Yin, 2014) is for these types of research questions: 'what', 'how', and 'why'. Thomas (2021) (Thomas, 2021) outlines case studies as follows: 'Case studies are analyses of persons, events, decisions, periods, projects, policies, institutions or other systems which are studied holistically by one or more methods.' Thomas believes that case study is 'a focus and the focus is on one thing, looking at in depth and from many angles.' He also adds that the purpose of case study is to understand the 'details of what is happening.' Stake (2005) (Stake, 2005) specifies some of the benefits of using case studies as an approach indicating that through case study, comprehensive information is gathered by a variety of data collection techniques over a constant period of time. In this research, three cases were selected. Reasons for selecting these cases were as follows:

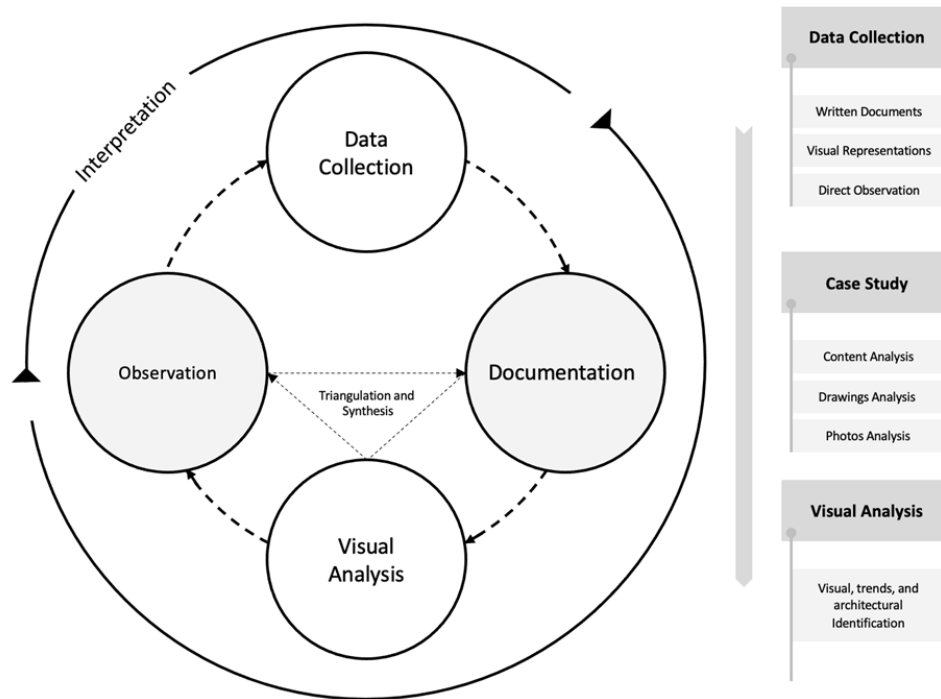


Figure (1). The study research design and methodology. Source: the Authors

- Availability of accurate information such as drawings, given that this study deals with seventy-year-old buildings and hence finding their drawings were vital for the analysis.
- Accessibility, given that many buildings were not accessible and hence, in many cases, photographing was not allowed.
- Building typology and characteristics, which cover a number of categories such as offices, housing, and commercial. Additionally, the buildings selected were varied in size, layout, and planning.

### 3.2 Content Analysis

Architecture is considered a discipline and a shared domain of knowledge (Celedón Forster et al., 2019). According to Audsley (2019) (Audsley, 2019), architecture is commonly referred to as the fusion of artistic and scientific principles in creating buildings and structures. According to Lucas (2016) (Lucas & Lucas, 2016), the field of study referred to as spatial design encompasses a continuously evolving corpus of knowledge that examines our utilization of space. This discipline explores various aspects, such as our habitation

and occupation of space, the creation of significant environments, and the shaping of the surrounding world. Creating architectural drawings is considered an inherent practice within architecture, and it is particularly suited for research purposes as a means of inquiry. In architecture, scholarly investigation and dissemination can encompass various forms of expression, including written discourse and visual representation. Abrams (2021) (Abrams, 2021) states that an examination of a building can be conducted by analyzing its architectural drawings and through direct observation. The practice is commonly recognized as a visual analysis, which serves as a means to comprehend the intricate nature of contemporary architectural designs (Edwards, 2008). This implies that it is possible to visually examine a structure or a specific portion of it, such as its exterior surface, intending to analyze various aspects, such as its vertical dimension, horizontal dimension, and constituent materials. Lucas (2016) (Lucas & Lucas, 2016) highlights the significance of building drawing as a method of inquiry that proves suitable and facilitates the emergence of distinct forms of knowledge. According to Edwards (2008) (Edwards, 2008), one of the advantages of

utilizing drawings is the ability to document and analyze real-life examples. Additionally, drawings serve as a valuable tool for evaluating the visual representation of imagined objects.

Radford et al. (2014) (Radford et al., 2014), the analysis process reveals an interpretation that subsequently provides insight into the design of a building and its architectural style. This comprehension is derived from analysis, thoughtful contemplation, and discourse surrounding the construction design and its architectural aesthetic. The significance of maintaining equilibrium in evaluating building design lies in carefully considering visual representation through drawings and the verbal articulation of concepts. Consequently, this research depends on integrating the examination of illustrations and written materials extracted from each case study. This study aims to enhance comprehension of both the logical progression of the building design and the architectural style exhibited by these structures.

### 3.3 Triangulation and Synthesis

Triangulation holds significant importance within the research realm as it enhances the credibility and validity of the findings. However, it aids in the mitigation of biases in the research. Triangulation in the current study indicates the incorporation of various research methods, datasets, theories, and investigations to address the research question effectively. According to Thomas (2011) (Thomas, 2021), triangulation is examining a subject matter from various perspectives and viewpoints. This approach involves conducting in-depth investigations using diverse methodologies and approaching the topic from different angles. In this study, three data-collection techniques were employed to ensure triangulation. Patton (2002) (Patton, 2002) identified three primary practices employed in the study: documentation through content analysis, observation through fieldwork analysis, and visual representation through drawings analysis. The documentation technique involved collecting and analyzing several documents pertaining to the chosen cases. The observation technique involved conducting site visits to comprehensively photograph the entirety of the building, both its interior and exterior, as well as the surrounding areas. These photographs were collected for the purpose of documentation and subsequent analysis. The visual representation

involved the reproduction and analysis of building drawings through the use of annotated diagrams, which have a well-established history within the architectural profession and a substantial body of knowledge associated with them.

## 4. The Study Cases

The 1950s were the heyday of Mid-Century Modern architecture, emphasizing clean lines, open spaces, and a strong connection with nature. Architects like Frank Lloyd Wright, Le Corbusier, and Ludwig Mies van der Rohe, to name a few, played pivotal roles in popularizing this style (Tournikiotis, 2001). Exterior façades at that time often featured large windows, flat planes, and minimal ornamentation. Using new materials like steel and glass allowed for innovative designs, such as the iconic glass curtain wall. These buildings were characterized by integrating indoor and outdoor spaces, with features like sliding glass doors and expansive terraces. The mid-century modern style also prioritized functionality and simplicity, emphasizing open floor plans and eliminating unnecessary details.

Cultural, political, and economic changes all impacted the significant transformation of Saudi Arabian architectural styles (Al-Hathloul, 2004; Alghamdi et al., 2023). During this time, several foreign-influenced architectural trends and styles emerged or became more well-known in the area. One of the prominent architectural styles that emerged in Saudi Arabia during this era was the incorporation of traditional Islamic elements into modern designs (Al-Hathloul, 2002, 2017; Alzahrani, 2022). This fusion of old and newly created a unique aesthetic that showcased the country's rich cultural heritage while embracing contemporary influences. Additionally, the rapid urbanization and economic growth in Saudi Arabia led to the rise of futuristic and avant-garde architectural designs, reflecting the nation's aspirations for modernity and progress.

Therefore, to reach the study objective, three prominent case studies were examined to explore the architectural trend that emerged in the 1950s. The intent is to understand how these cases laid the foundation for the diverse and innovative architectural developments that have continued to shape the Saudi Arabian built environment in subsequent decades.



#### 4.1 Case One: Ministry of Health

The first selected case study is the Ministry of Health building, the first and oldest headquarters for health services in the Kingdom (Figure 2). The building is located at King Abdulaziz Road, previously known as The Airport Road, Al Murabba district.

The renowned Egyptian architect Sayed Karim oversaw the architectural design of the Ministry of Health building, and Othman Ahmed Othman led the Arab Contractors Foundation in carrying out the construction. The structure is recognized as the most historically dedicated headquarters for healthcare services in the Kingdom. During that period, most of the ministries' main offices were established along Airport Road, now referred to as King Abdulaziz Road. These offices were constructed simultaneously. The primary contractor, Arab Contractors Foundation, engaged multiple subcontractors to assist in completing the construction project for the ministry's headquarters. The headquarters location was selected to mitigate issues related to urban congestion by situating it outside the boundaries of Riyadh city. Nevertheless, the concentration of all ministry headquarters in a

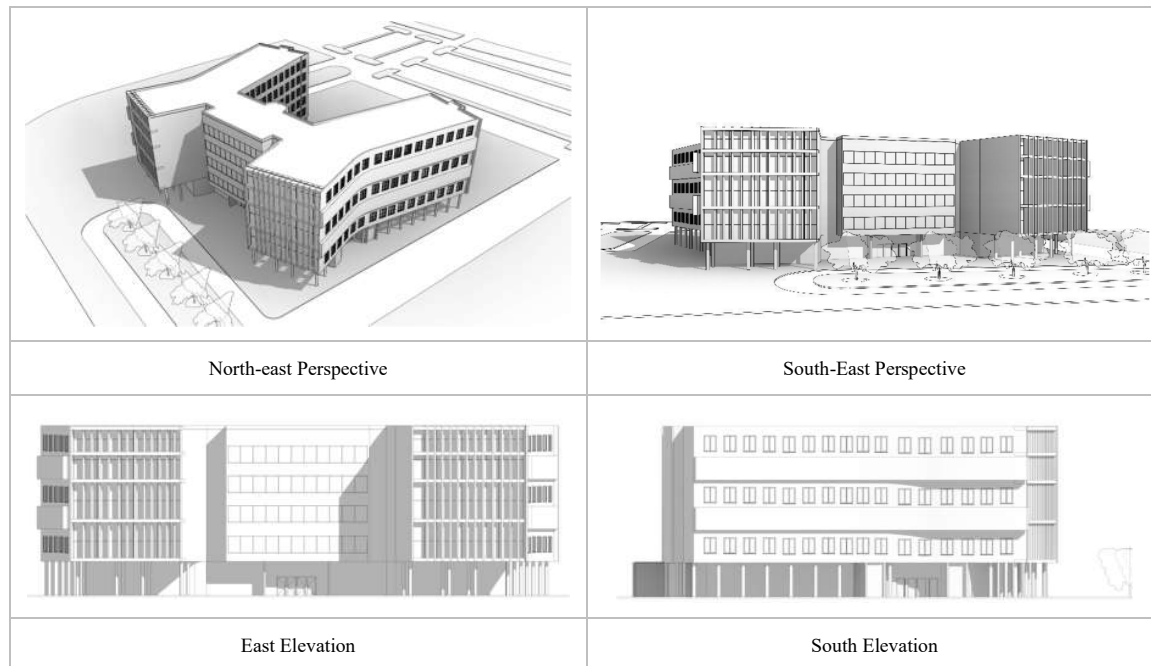
single location has resulted in overcrowding for both government employees and visitors to these departments.

The architectural features and design vocabulary employed in the building suggest that architect Sayed Karim drew inspiration from the modern architecture movement. The mass of the Ministry building is partitioned into three distinct zones, with the central zone serving as a connecting link between the two opposing blocks (Figure 3). The primary entrance of the edifice is situated within the central portion of the structure, establishing a formal and ceremonial point of entry. The entrance hall provides access to the Ministry's primary auditorium. The primary circulation pathway within the building is centrally positioned, facilitating accessibility to all building areas. Regarding the architectural features of the building, it is worth noting that horizontal windows are particularly prominent, particularly on the main façades. Solar breakers were employed as concrete overhangs positioned above the horizontal windows. For example, Le Corbusier's Unité d'Habitation a residential building in Marseille, France, also uses a grid façade with brutalist features similar to this study case (Millais, 2015). Therefore, the building



Design Date	1952	Building Type	Office/Governmental
Construction Date	1954	Number of Levels	5 Levels
Opening Date	1957	Plot Area	33,830 m <sup>2</sup>
Designer	Sayed Karim	Building Footprint	5,164 m <sup>2</sup>
Contractor	The Arab Contractors	Total Floor Area	20,657 m <sup>2</sup>

Figure (2). Ministry of Health building history and facts. Source: the Authors



**Figure (3).**The Ministry of Health's architectural characteristics. Source: The Authors

exhibits contemporary architectural features, such as incorporating columns in its façades. A set of columns located in the two blocks facing one another facilitates the elevation of the first-floor slab. The construction elements employed in this project included elongated horizontal glass windows, reinforced concrete structures, flat roofing systems, and a low-profile, expansive design. The restoration of the Ministry building took place in 1999. The scope of the restoration efforts was confined to the alteration of the exterior paint's hue. The subsequent visuals depict the three-dimensional representation of the Ministry of Health edifice. The text effectively demonstrates the integration of the Mid-Century Modernist architectural style into mainstream culture.

#### 4.2 Case Two: The Eastern Flower Hotel

The second selected case study is the building of The Eastern Flower Hotel, known in Arabic as Zahrat Al Sharq. The hotel is recognized as one of the hotels sponsored by the Saudi Government in Riyadh (Figure 4). The building is located at King Abdulaziz Road, previously known as The Airport Road, Al Malaz district.

Mohammad Bin Laden oversaw the construction, while renowned Egyptian architect

Sayed Karim created the architectural design for the Zahrat Al Sharq hotel building. The structure is regarded as one of the initial hotels constructed in the 1950s under government sponsorship. Nevertheless, ownership was transferred to the contractor, Mohammad Bin Laden. The hotel is renowned for accommodating numerous guests from the Kingdom, including celebrities and prominent national and international individuals. The hotel underwent enhancements during the late 1950s and 1960s by incorporating sports facilities that met international standards. The hotel has transformed into a prestigious establishment. One prominent individual in photography is Keith Wheeler, renowned for capturing numerous photographs of Riyadh, particularly during the early 1960s. Mr. Wheeler is widely acknowledged as the preeminent photographer who extensively documented the urban landscape of Riyadh. The photographs he captured gained wide circulation and were extensively utilized in various reference books about Riyadh.

The inauguration of this building took place in 1958 under the auspices of King Saud. The structure's architectural features suggest that it can be classified as an example of contemporary design. The building amenities encompass a dining

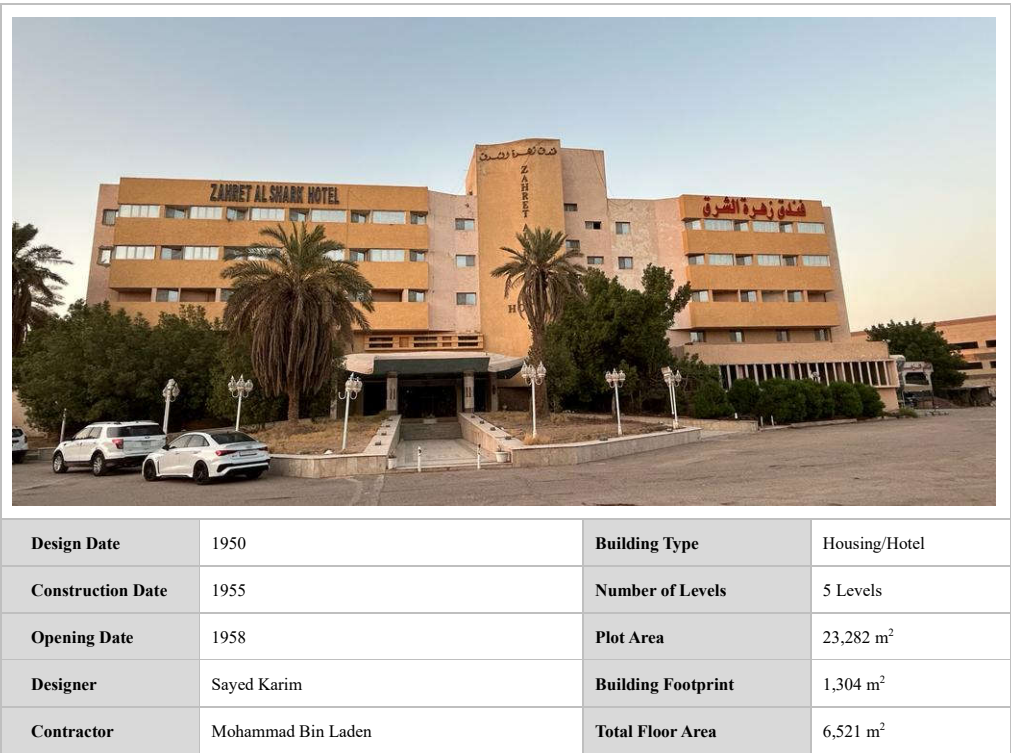


Figure (4). The Eastern Flower Hotel history and facts. Source: the Authors

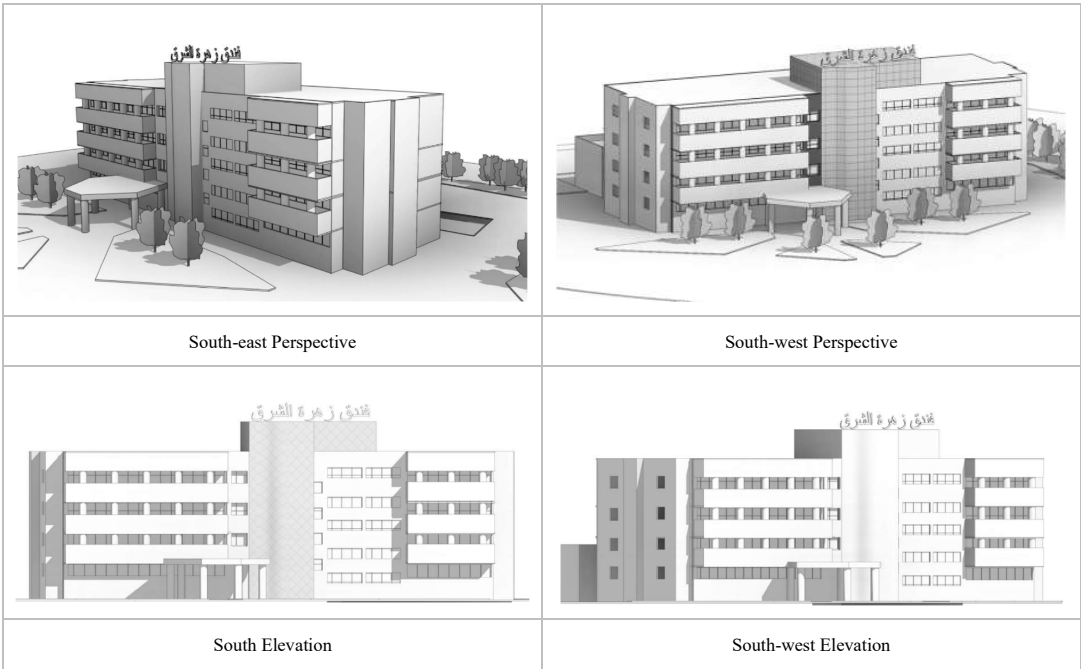


Figure (5). The Eastern Flower Hotel architectural characteristics. Source: The Authors

establishment, sports facilities for football and tennis, and event spaces. The primary architectural concept involved a central rectangular structure that housed the guest accommodation rooms (Figure 5). The guest rooms were arranged in two parallel rows, with a central corridor dividing them along the longitudinal axis of the building.

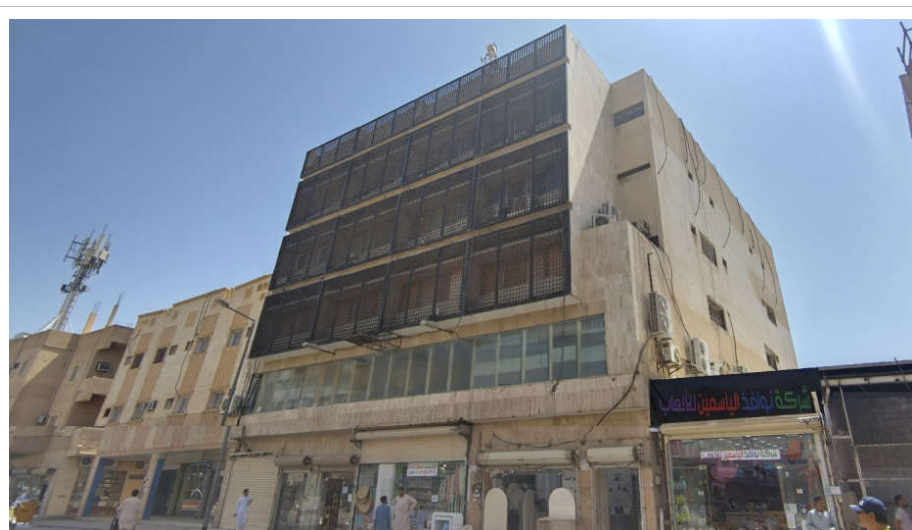
Additionally, the majority of these rooms were equipped with balconies. The vertical movement elements are prominently and precisely positioned at the central axis of the building, adjacent to the hotel's primary entrance. The primary elevation of the building is composed of horizontal elements with significant mass. A single-story hexagonal canopy covers the entrance, close to the center of the building's frontage. For example, the residential blocks of Brasilia, Brazil, were designed by Oscar Niemeyer and showcase the hotel's use of simple, geometric shapes just like the one seen in the Zahrat Al Sharq hotel. (Rojas & Magalhaes, 2007). As a result, the designer intended to incorporate curved lines amidst a collection of predominantly vertical elements, thereby introducing a sense of fluidity that was not widely embraced during that era. The subsequent visual representations

illustrate the three-dimensional modeling of the hotel edifice. The architectural style of mid-century modernism is being widely adopted and integrated into mainstream design.

### 4.3 Case three: National Electricity Company

The third selected case study is the building of National Electricity Company. This building is known to be the first and oldest headquarter owned by the company (Figure 6). The building is located at Al Suwailim Street, Al Dirah district.

During the latter half of the 1950s, the renowned Egyptian architect Sayed Karim once again undertook the development of the National Electricity Company building. The construction of the building was undertaken by the Arab Contractors Foundation under Othman Ahmed Othman. The structure is acknowledged as the most historical, purposefully constructed central office for the electricity corporation within the Kingdom. The structure is situated on Al-Swailem Street, which is recognized as a highly trafficked thoroughfare in the capital city. The relocation of the National Electricity Company has resulted in leasing this building to a different commercial entity.



Design Date	1959	Building Type	Office/Commercial
Construction Date	1960	Number of Levels	5 Levels
Opening Date	1962	Plot Area	815 m <sup>2</sup>
Designer	Sayed Karim	Building Footprint	593 m <sup>2</sup>
Contractor	The Arab Contractors	Total Floor Area	2,965 m <sup>2</sup>

Figure (6). The National Electricity Company architectural characteristics. Source: The Authors



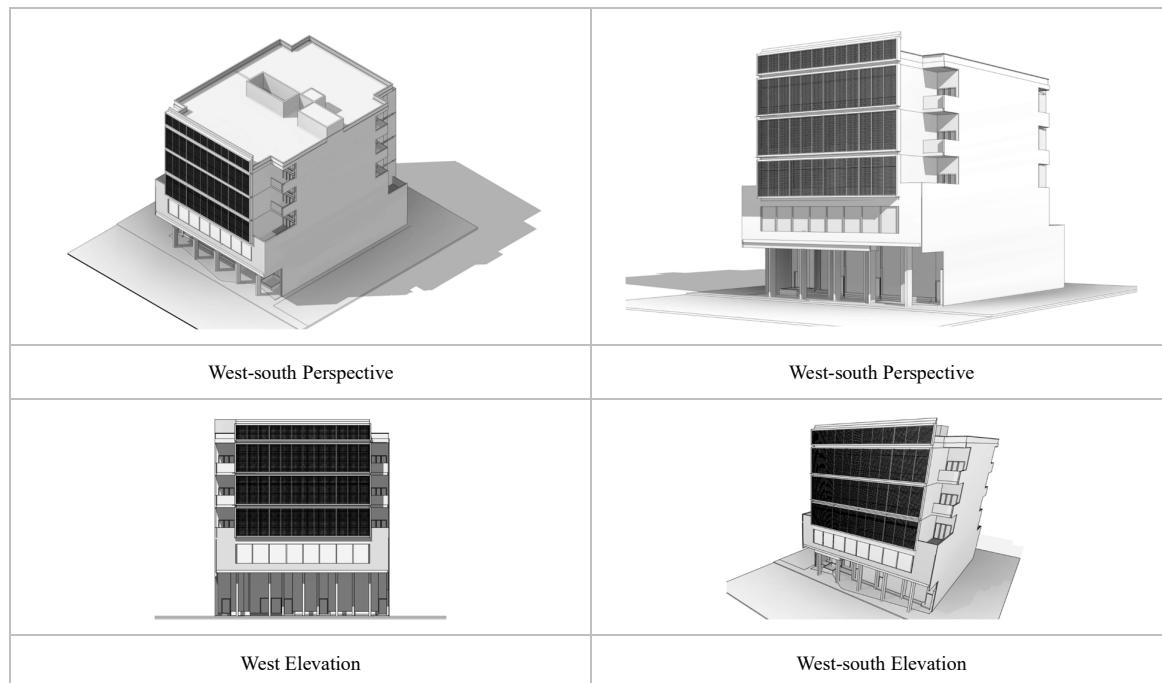


Figure (7). The National Electricity Company architectural characteristics. Source: The Authors

The building, as mentioned above, exhibits a hierarchical arrangement consisting of five levels, analogous to that of an office building. The design of the layout adhered to a rectangular shape. The core of the building housed the vertical circulation elements, such as elevators and stairs, alongside an open courtyard and other essential services (Figure 7). The primary exterior of the structure is partitioned into three distinct sections, delineated by a notable wall and linked together by a metal mashrabiya (mesh motif curtain screen), which unifies the successive levels into a cohesive whole. The ground and first levels were enveloped in stone panels featuring expansive glass apertures. Over time, the building underwent several alterations. One notable feature is the metallic cladding on the central section of the front façade, which was designed to serve as a mashrabiya, resembling those found in Hejazi architecture in the western region of the Kingdom. For example, SANAA designed the New Museum in New York, USA. It has staggered floors and a basic boxy form. Although it was built in a different era, it has a mesh façade similar to the National Electricity Company (Shin et al., 2013). Therefore, the subsequent visual representations depict the process of three-dimensional modeling applied to the National Electricity Company

edifice. The architectural style of mid-century modernism is being widely adopted and integrated into mainstream design.

## 5. Analysis

It is notable that all the studied cases were designed by a well-known Egyptian architect, Sayed Karim (1911-2005). This is due to s being commissioned by the Saudi Government to design the majority of the Saudi ministerial buildings and some other facilities such as hotels and commercial buildings in Riyadh. When a decision was made in the late 1950s to move the capital of the country from Jeddah to Riyadh, Sayed Karim also put forth an early master plan for the city of Riyadh in 1950 (Al-Ghamrawi, 2015; Elwakil, 2019), this happened when new government buildings, housing for the government staff, and a number of royal palaces and villas were constructed in Riyadh. The Airport Road – popularly locally known as ‘Ministries Street’ - was known to host most ministerial buildings. In contrast, Al Malaz district houses government employees from Jeddah and elsewhere.

We could say that Sayed Karim architectural style can be described as a modern with an international touch that was common among



architects during this era (Ashour, 2016). Therefore, the architectural façades in the three cases exhibit a mid-to-late twentieth-century modernist approach, which is common in Saudi Arabia and many urban settings worldwide (Figure 8). As a result, the repetitive geometry of the façades seen in the Ministry of Health prominently features a repeated grid pattern with square and rectangular openings, a Brutalist and Modernist movement hallmark. On the other hand, the Eastern Flower Hotel balconies were elements that were not previously used in such a context, with linear railings providing semi-outdoor space for the residents. While functional, they also serve as personal expression spaces where residents can add plants, furniture, or other items. They provide brief bursts of color and variation in an otherwise monotonous façade.

The contrast between the cases expresses different approaches to architectural design. The Brutalist and Modernist movements prioritize using bold, geometric forms and minimal ornamentation, creating a sense of strength and solidity. In contrast, the Eastern Flower Hotel embraces a more organic and interactive approach, incorporating balconies as an extension of personal living spaces. This juxtaposition highlights how architecture can shape our experiences and perceptions of the built environment. Therefore, the façade's vast, unbroken surfaces and consistent use of materials create a sense of strength and permanence due to its monolithic simplicity. This monolithic appearance can evoke feelings of stability and timelessness, implying that the structure stands guard against the passage of time.

In the contrary, the grid-like structure of the metal mesh façade that covers the balconies on each floor of the National Electricity Company provides a new way of shade, privacy, and possibly passive cooling, making this building differ in its functional and decorative element. Behind this façade, each unit's balconies extend outward, providing outdoor space for the building's occupants with new approach for privacy concerns. The structure incorporates a mix of large rectangular windows and smaller square openings, with the latter providing ventilation as well as a decorative touch. Its minimalistic design leans toward minimalism, emphasizing function over form and featuring clean lines, a subdued color scheme, and a lack of ornate details. Large rectangular windows let in plenty of natural light, creating a light and airy atmosphere. Furthermore, the neutral color scheme adds a sense

of sophistication and timelessness to the structure's overall aesthetic.

The three examples showcased a different approach to rhythm created by the repeated grid pattern of the windows and façade elements. This repetitive nature can be interpreted as a reflection of the consistent pace of urban life or of society's uniformity and collectivism. This created a dynamic interplay of light and shadow by creating depth in the façades, particularly in the recessed windows and protruding elements. These different rhythm approaches to shadows shift as the weather becomes harsher, providing a constantly changing interplay of light and dark. Also, add a sense of movement and vitality to the buildings, making them appear more dynamic and alive. Additionally, the interplay of light and dark can evoke different moods and emotions, enhancing the overall experience of the urban environment for both residents and passersby. In this instance, the three buildings sharply contrast with the organic forms of the surrounding landscape. This juxtaposition can be interpreted as a commentary on the relationship between nature and urban development or as a visual reminder of the coexistence of natural and built environments.

The architectural design of the Ministry of Health exhibits a combination of vertical and horizontal proportions, resulting in a visually engaging composition. The presence of horizontal elements, such as recessed rectangular windows balance the building's vertical thrust. From a geometric perspective, the architectural structure consists of solid blocks juxtaposed with voids, juxtaposed with voids, manifesting in the form of windows and semi-balconies. One notable feature is a grid-like arrangement on a particular side, which resembles the National Electricity Company design, albeit with distinct execution (Figure 9). This phenomenon offers both aesthetic appeal and potential functional utility, such as providing shade. The opposition of solid and void elements in the design engages with the notions of opacity and transparency, resulting in a distinctive visual encounter for the observer.

On the other hand, the Eastern Flower Hotel showcases a horizontal orientation and proportion, characterized by a greater emphasis on width rather than height. The geometric arrangement is characterized by sizable rectangular sections and balconies that alternate in a rhythmic pattern. The building exhibits a distinct façade pattern on one side, contributing to its visual appeal. Incorporating


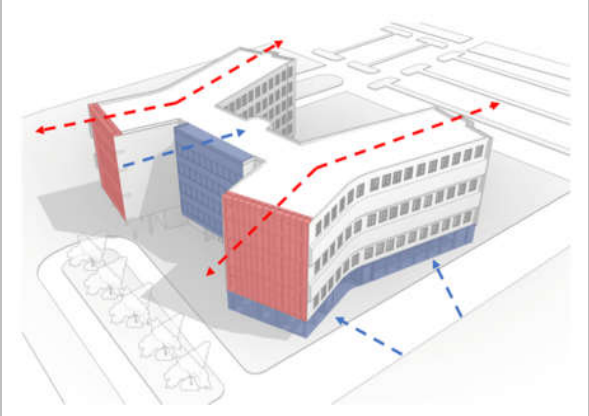
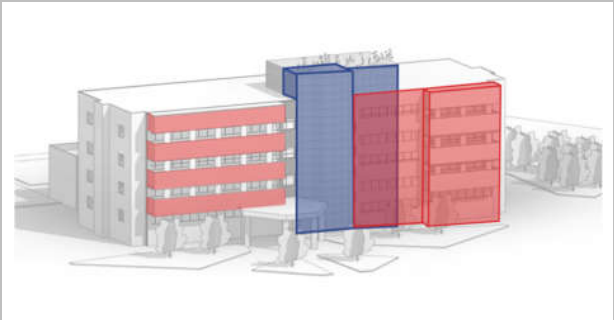
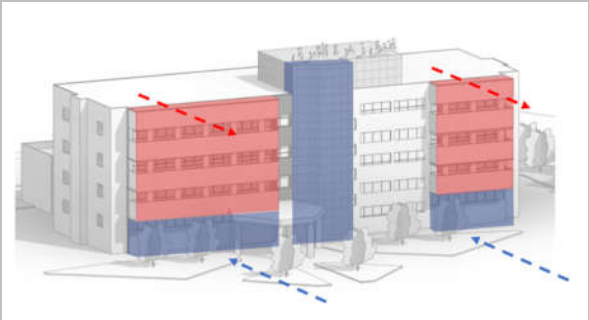
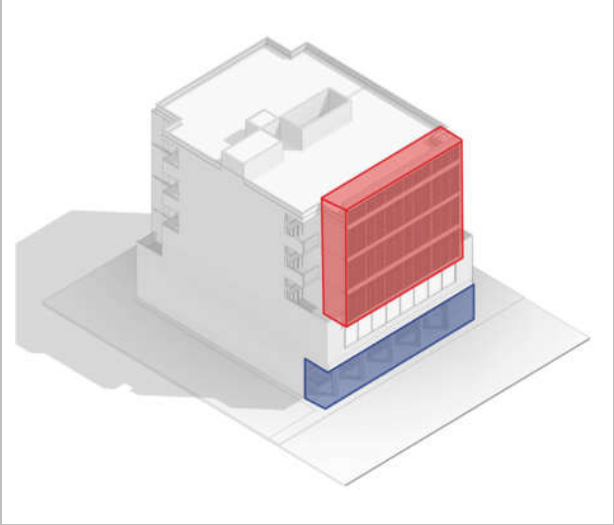
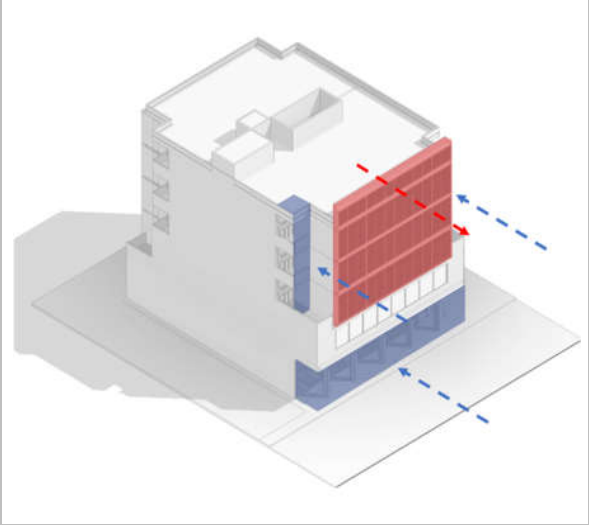
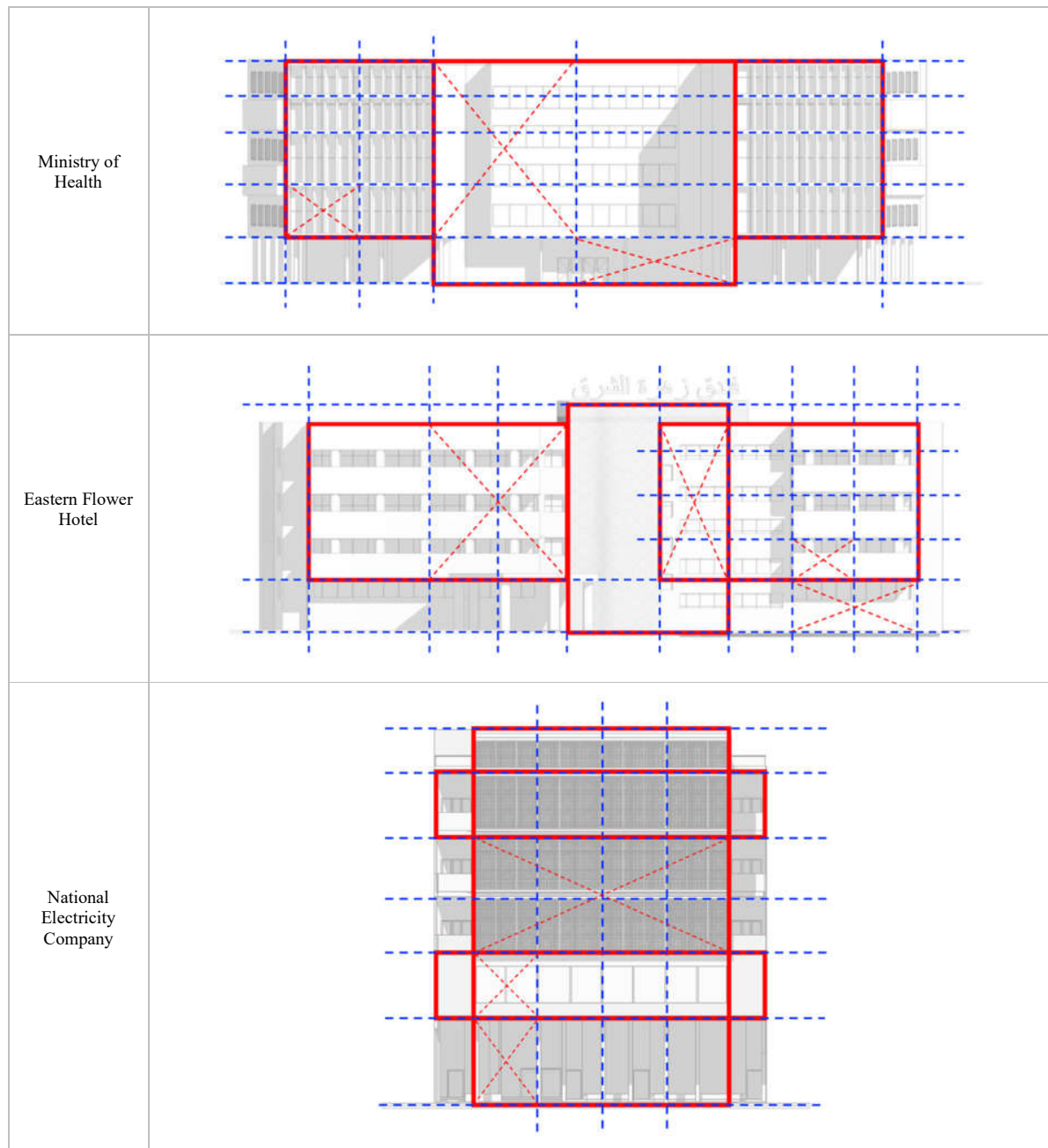
Geometry Composition	Push & Pull Geometries
Ministry of Health	
	
Eastern Flower Hotel	
	
National Electricity Company	
	

Figure (8). The geometry and characteristic aspects of 1950s façades. Source: The Authors



**Figure (9).** The geometric, compositional, and proportional aspects of 1950s façades. Source: The Authors

layered balconies introduces a sense of depth to the otherwise flat structure, forming distinct areas of shadow and light. The vertical components of the building are further divided by horizontal slabs that are evenly spaced, thereby strengthening the emphasis on the horizontal aspect.

While The National Electricity Company incorporates a balanced vertical proportion and a nearly cubical shape for its main body, it examines architectural proportion and geometric composition. The building's large rectangular openings on the ground floor serve as a visual foundation for the

structure. The architectural design incorporates a recurring grid pattern for the exterior, constituting a prominent element that extends vertically across the entirety of the structure. The utilization of visual rhythm in this context serves to establish a harmonious and repetitive mesh motif. Including staggered side extensions introduces an added dimension, disrupting the uniformity of the grid pattern and introducing an asymmetrical balance to the overall design.

Through observation, the study highlighted Saudi Arabia's architectural landscape in the 1950s, which changed dynamically, reflecting a mix of traditional influences and modern aspirations. Table 1 summarizes the architectural evolution, beginning with the introduction of curtain walls, which allowed for expansive glass façades, and ending with the pronounced horizontal emphasis seen in many structures. Factors such as the country's oil wealth, modernism's influence, advancements in

construction materials, and a renewed interest in regional designs all played essential roles in shaping the nation's-built environment. Furthermore, the emphasis on functionalism and the commitment to urban planning and public infrastructure emphasized the country's forward-thinking vision while remaining rooted in its rich history.

Overall, the mainstream architectural and exterior façades of the Saudi Arabian 1950s were influenced by a desire for simplicity, functionality, and a connection with the natural environment. The decade saw the mainstreaming of mid-century modernism, the continued influence of the international style, and the emergence of brutalism, each with its distinct approach to exterior façades. These styles and façade typologies continue to influence architecture and design to this day, illustrating the lasting impact of the 1950s on the built environment in Saudi Arabia.

Table (1). Summary of the Saudi Arabian 1950s architectural evolution

Façade Typology	Transformation Influence
<u>Curtain Walls</u> : In Saudi Arabian buildings, curtain walls became a prominent façade typology that was never seen before. These were large expanses of glass held in place by a metal framework, creating a seamless transition between the interior and exterior. Curtain walls allowed for breathtaking views and a sense of openness.	<u>Modernism Architecture</u> : Architectural principles were widely embraced due to the high dependence on foreign architects and laborers. This international collaboration resulted in importing architectural ideas and styles from Egypt, Europe, the United States, and other parts of the world (Gold, 2007). As a result, the architect emphasized functionality and simplicity and applied conceptual ideas that were a break from historical architectural traditions. This was evident in buildings that featured clean lines, geometric shapes, and a focus on functionality.
<u>Horizontal Emphasis</u> : Many buildings of the 1950s, including the study cases, favored horizontal lines in their exterior façades. This was achieved through long, horizontal windows, concrete lines, flat roofs, and low, spreading forms. These designs aimed to blend the building with its natural surroundings.	<u>Influence of Oil Wealth</u> : The discovery and exploitation of oil reserves in Saudi Arabia during the mid-20th century led to significant economic prosperity (Shafiee, 2021). This newfound wealth allowed for ambitious architectural projects, often characterized by grandiosity and opulence. Iconic structures and modern cities began to emerge, showcasing a blend of modernist and monumental architectural styles.
<u>Use of New Materials</u> : Advances in materials like steel, glass, and concrete significantly shaped exterior façades in Saudi Arabia during this era. These materials allowed for more daring and innovative designs, as seen in the exposed glass façades of The Eastern Flower Hotel Modern buildings or the imposing concrete surfaces of Brutalist structures in the Ministry of Health.	<u>Islamic Revivalism</u> : While modernism was a dominant trend, there was also a resurgence of interest in traditional Islamic architecture during the 1950s. This revivalist movement sought to incorporate Islamic design and cultural elements into modern buildings (Rabbat, 2012). Architects looked to historical Islamic architecture for inspiration, incorporating features like arches, domes, and intricate geometric patterns into contemporary designs. This approach aimed to strike a balance between tradition and modernity.
<u>Functionalism</u> : The 1950s buildings in Saudi Arabia strongly emphasized functionalism in architecture, which was reflected in exterior façades. Architectural elements were designed to serve a purpose, and unnecessary ornamentation was often eschewed in favor of clean, functional lines.	<u>Public Infrastructure and Urban Planning</u> : Saudi Arabia invested heavily in public infrastructure during the 1950s (Aldagheiri, 2009). Urban planning and constructing modern amenities, such as highways, bridges, and public buildings, became a priority (Alshebli, 2018). This era witnessed new cities' development and existing ones' expansion and modernization. This demanded structures that expresses the country's development and needs.

## 6. Findings

Riyadh, Saudi Arabia, underwent an architectural transformation in the 1950s from traditional Najdi designs to a more modern style due to the nation's oil wealth and connections to the international community. This shift was characterized by adopting building materials like concrete and steel, replacing the traditional mud brick construction, and signaling a move towards modernization and away from conventional architectural styles.

The study found that blending Islamic elements with modern design principles resulted in a unique architectural identity in Riyadh. Buildings like the Ministry of Health, The Eastern Flower Hotel, and the National Electricity Company—each a testament to Sayed Karim's architectural vision—showcased this fusion by incorporating modern construction methods alongside traditional Islamic architectural features such as courtyards and decorative patterns, creating a distinct aesthetic that mirrored the cultural changes of that period.

Additionally, the research emphasized how foreign architects and firms shaped Riyadh's architectural landscape in the 1950s. The introduction of architectural concepts during the

oil boom era contributed to bringing modernist architectural ideas to Riyadh through global exchanges and interactions. However, what truly set the style of that era apart was the city's unique ability to skillfully blend these principles with the local and Islamic architectural traditions, creating a distinctive architectural identity.

The study also highlighted the pivotal role of societal and cultural factors in shaping Riyadh's architectural development. Social norms, religious beliefs, and cultural values significantly guided architectural practices toward a harmonious fusion of modernity and tradition. This delicate balance, reflecting the community's aspiration to embrace modernization while preserving its heritage, was a prevalent theme in Riyadh's architectural story during the 1950s, underscoring the city's commitment to its cultural roots (Table 2). Furthermore, the research sheds light on Western modernity by exploring the works of Arab architects like Sayed Karim, who incorporated early modernist concepts into their designs. This perspective adds depth to the discourse on architecture by showcasing how cities outside the Western world, such as Riyadh, navigated the complexities of modernization while safeguarding their cultural roots.

In summary, Riyadh's architectural evolution

Table (2). The study main findings

Aspect	Summary of Findings
<b>Architectural Form</b>	The architectural form in Riyadh during the 1950s displayed a blend of modernist principles with traditional and Islamic elements. Buildings like the Ministry of Health, The Eastern Flower Hotel, and the National Electricity Company showcased modern materials and construction techniques while incorporating traditional features such as courtyards and abstract decorative motifs.
<b>Composition</b>	Elements. The use of horizontal windows, concrete overhangs, and flat roofing systems alongside traditional decorative patterns was prevalent.
<b>Symbolism</b>	Architectural symbolism during this period reflected a dialogue between the past and the future. Modern buildings incorporated Islamic and traditional motifs, serving as symbols of Saudi Arabia's cultural heritage amidst rapid modernization and urbanization.
<b>Cultural Context</b>	The architectural developments of the 1950s were deeply embedded in Saudi Arabia's cultural context, blending Islamic traditions with emerging modernist trends. This period reflected an architectural identity crisis and a search for a balance between preserving cultural heritage and embracing modernization.
<b>Foreign Influence</b>	Foreign architects and firms brought international modernist influences to Riyadh, introducing new design principles and construction techniques. However, the unique architectural identity of Riyadh from this era was shaped by the selective adaptation and integration of these foreign influences with local and Islamic architectural traditions.
<b>Socio-Cultural</b>	The socio-cultural dynamics of the 1950s, including religious precepts, societal norms, and the influx of oil wealth, significantly influenced architectural practices. Architects and builders navigated these dynamics by incorporating modern elements into traditional frameworks or forging new architectural vocabularies, reflecting the broader societal shifts towards modernization while retaining cultural identity.



in the 1950s is a testament to how the city responded to changes in society and economy, integrated diverse cultures, and embraced global influences. The infusion of architecture with traditional and Islamic elements not only mirrored Saudi Arabia's societal and cultural transformations but also contributed to a distinctive architectural identity that continues to shape Riyadh's urban fabric. This research highlights the significance of considering advancements concerning their historical, cultural, and socio-economic settings. It provides perspectives on the conversation between the past and future in the urban development of Saudi Arabia.

## 7. Conclusion

During the 1950s, the façade typology in Saudi Arabia underwent significant changes influenced by a variety of factors. Curtain walls with large glass sections became prominent, providing uninterrupted views and blurring the line between the interior and exterior. This adoption was greatly influenced by the rise of modernist architecture, which emphasized functionality, simplicity, and a break from traditional designs. Another distinguishing feature of the building exteriors was the horizontal emphasis achieved through elongated windows and concrete lines. The nation's oil wealth fueled grand architectural ventures that blended modern and monumental styles, fueling this trend. Steel, glass, and concrete advancements catalyzed innovative designs, which can be seen prominently in modern structures and Brutalist buildings. Along with modernist tendencies, the 1950s saw an Islamic Revivalism, which blended historical Islamic architectural elements with modern designs. This decade was defined by architectural functionalism, with façades reflecting purposeful designs devoid of unnecessary embellishments. Finally, Saudi Arabia's emphasis on urban planning and public infrastructure shaped the architectural landscape, with new cities being built and existing ones being modernized to reflect the nation's progress and aspirations.

The architectural landscape of Saudi Arabia is set to evolve further, drawing on its rich history while embracing future innovations. From the 1950s, the fusion of modernist principles with traditional Islamic influences laid the groundwork for the nation's contemporary design ethos. As global architectural trends shift toward sustainable

and smart designs, Saudi Arabia is expected to incorporate these elements, blending them with the country's distinct cultural and historical nuances. Material and technological advancements, combined with the nation's 2030 vision for urban development, are likely to result in architectural marvels that are both functional and environmentally conscious. Furthermore, as Saudi Arabia diversifies and modernizes, we can expect an even greater emphasis on public spaces, community-driven designs, and infrastructure promoting cultural preservation and global connectivity. In essence, Saudi Arabia's architectural narrative, rooted in the transformative 1950s, is poised to be a source of inspiration and innovation in the coming decades.

Moving forward, one critical area of investigation is the nuanced fusion of modernist principles with Islamic revivalism. Dive deeper into this intersection to learn more about the socio-cultural dynamics that influence architectural decisions in the country. Given the widespread use of steel, glass, and concrete in the 1950s, it is important to investigate how emerging materials and technologies are currently reshaping Saudi Arabia's architectural fabric. With global architectural trends emphasizing sustainability, it's critical to understand how Saudi Arabia is localizing these sustainable and smart designs, especially while retaining its unique architectural identity.

As Saudi Arabia strengthens its global ties, an intriguing area of research is determining how its architectural practices are evolving to facilitate international collaborations. Similarly, predicting the architectural philosophies guiding Saudi Arabia's future urban development provides valuable foresight. Finally, comparing Saudi Arabia's architectural trajectory to that of other rapidly urbanizing nations could provide a more comprehensive understanding of its unique journey within global trends. These research directions are critical for anyone attempting to piece together the intricate tapestry of Saudi Arabia's architectural past, present, and future.

## Acknowledgments

The authors would like to acknowledge the Steering Committee of Riyadh Memory Project: Prof. Saleh Al-Hathloul, Prof. Mohammad Alissan Alghamdi, Prof. Mashary Al-Naim, and Dr. Ricardo Camacho for their constructive feedback and contributions to this research paper. All Saudi

public, private, and non-governmental organizations are acknowledged for their assistance and support.

## 8. References

- Abrams, M.**, The art of city sketching: a field manual. Routledge; 2021.
- Akkach, S.**, "Modernity and design in the Arab world." Design in the Borderlands, Routledge, 61-75, (2014).
- Al-Farsy, F.**, Modernity and tradition: The Saudi equation. Routledge; 2012.
- Al-Ghamrawi, A., Dr. Sayed Karim:** Pioneer of city planning (Second ed.). Giza Governorate; 2015.
- Al-Hathloul, S.**, "Riyadh architecture in one hundred years." Darat al-Funun. Amman, Jordan, (2002).
- Al-Hathloul, S.**, "Riyadh, Saudi Arabia." In R. S. Sennott (Ed.), Encyclopedia of 20th Century Architecture (Vol. 3). Fitzroy Dearborn, (2004).
- Al-Hathloul, S.**, "Riyadh development plans in the past fifty years (1967-2016)." Current Urban Studies, 5(01), 97, (2017).
- Al-Ibrahim, M. H.**, "The criticism of modern architecture in Saudi Arabia." Engineering Sciences, 7(1), (1995).
- Al-Naim, M.**, "Conservatism versus modernism: Hesitant urban identity in Saudi Arabia." The Middle East Institute, Architecture and Urbanism in the Middle East, (2008).
- Al-Rasheed, M.**, A history of Saudi Arabia. Cambridge university press; 2010.
- Aldagheiri, M.**, "The role of the transport road network in the economic development of Saudi Arabia." WIT Transactions on the Built Environment, 107, 275-286, (2009).
- Alghamdi, N., Alnaim, M. M., Alotaibi, F., Alzahrani, A., Alosaimi, F., Ajlan, A., Alkhudhayri, Y. A., & Alshathri, A.**, Documenting Riyadh City's Significant Modern Heritage: A Methodological Approach. Buildings, 13(11), 2818, (2023).
- Alkhabbaz, M. H.**, Leaping into Modernity: Architecture and Identity in Saudi Arabia, 1962-1986. Illinois Institute of Technology; 2018.
- Alnaim, M. M., & Noaime, E.**, "Typological Transformation of Individual Housing in Hail City, Saudi Arabia: Between Functional Needs, Socio-Cultural, and Build Polices Concerns." Sustainability, 14(11), 6704, (2022).
- Alshebli, A.**, Towards making urban planning practices more effective amid rapid urban growth in Riyadh-Saudi Arabia University of Birmingham; 2018.
- Alsoliman, A.**, Riyadh: The process of architectural and urban development. Jadawel S.A.R.L; 2023.
- Alzahrani, A.**, "Understanding the role of architectural identity in forming contemporary architecture in Saudi Arabia." Alexandria Engineering Journal, 61(12), 11715-11736, (2022).
- Arbid, G., & Oswalt, P.**, Designing Modernity: Architecture in the Arab World 1945-1973. De Gruyter; 2022.
- Asfour, K.**, "Identity in the Arab Region: Architects and Projects from Egypt, Iraq, Jordan, Saudi Arabia, Kuwait and Qatar." Constructing identity in contemporary architecture: Case studies from the south, 12, 151, (2009).
- Ashour, S.**, "Sayed Karim; Reflections on a "Revolutionary" Modernist." Failed Architecture workshop in Cairo, (2016).
- Audsley, S. M.** (2019). Why Study Architecture? Retrieved November 3 from <https://www.masterstudies.com/articles/why-study-architecture>
- Avermaete, T., & Nuijsink, C.** (2021). Architectural Contact Zones: Another Way to Write Global Histories of the Post-War Period? Architectural Theory Review, 25(3), 350-361.
- Celedón Forster, A., Ferrari Moncada, F. A. d., Díaz Peñaloza, F. J., & Grass Puga, D. J.**, "Architecture as a common field of knowledge." archithese 3.2019 Chile, (2019).
- Creswell, J. W., & Creswell, J. D.**, Research design: Qualitative, quantitative, and mixed

- methods approaches. Sage publications; 2017.
- Doumato, L.**, *The Contemporary Architecture of Saudi Arabia*. Vance Bibliographies; 1980.
- Edwards, B.**, *Understanding architecture through drawing*. Taylor & Francis; 2008.
- Elsheshtawy, Y.**, *The Evolving Arab City: Tradition, Modernity and Urban Development*. Routledge; 2008.
- Elsheshtawy, Y.**, *Riyadh: transforming a desert city*. Routledge; 2021.
- Elwakil, M.**, "Modernist Indignation: Two architects on the forgotten legacy of Sayed Karim." Retrieved October 27, 2024 from <https://www.madamasr.com/en/2019/02/16/feature/culture/modernist-indignation-two-architects-on-the-forgotten-legacy-of-sayed-karim/>
- Fabbri, R., & Al-Qassemi, S. S.**, *Urban Modernity in the Contemporary Gulf: Obsolescence and Opportunities*. Taylor & Francis; 2022.
- Gharipour, M.**, "Tradition versus modernity: The challenge of identity in contemporary Islamic architecture." *Local Identities Global Challenges*, 199-205, (2011).
- Giddings, B., Almhrej, M., & Cresciani, M.** "The dilemma of Saudi Arabian homes in Riyadh." *Space and Culture*, 26(1), 4-22, (2023).
- Gold, J. R.**, *The practice of modernism: modern architects and urban transformation, 1954–1972*. Routledge; 2007.
- Hariri-Rifai, W., & Hariri-Rifai, M.**, *The heritage of the Kingdom of Saudi Arabia*. GDG Exhibits Trust; 1990.
- Helmy, M.**, "Urban branding strategies and the emerging Arab cityscape: the image of the Gulf city." *The British University*, (2008).
- Isenstadt, S., & Rizvi, K.**, *Modernism and the Middle East: architecture and politics in the twentieth century*. University of Washington press; 2008.
- James-Chakraborty, K.**, "Beyond postcolonialism: New directions for the history of nonwestern architecture." *Frontiers of Architectural Research*, 3(1), 1-9, (2014).
- Jobran, F.**, "Conventional and Contemporary Building Methods: The Transition of Traditional Saudi Arabian Architectural Designs." *The International Journal of Architectonic, Spatial, and Environmental Design*, 17(1), 87, (2022).
- Lucas, R., & Lucas, R.**, *Research methods for architecture*. Hachette UK; 2016.
- Mahgoub, Y.**, "Architecture and the expression of cultural identity in Kuwait." *The Journal of Architecture*, 12(2), 165-182, (2007).
- Millais, M.**, "A critical appraisal of the design, construction and influence of the Unité d'Habitation, Marseilles, France." *Journal of Architecture and Urbanism*, 39(2), 103-115, (2015).
- Moscattelli, M.**, "Rethinking the Heritage through a Modern and Contemporary Reinterpretation of Traditional Najd Architecture, Cultural Continuity in Riyadh." *Buildings*, 13(6), 1471, (2023).
- Nitschke, J. L., & Lorenzon, M.**, "Archaeology, Architecture, and the Postcolonial Critique." *Postcolonialism, Heritage, and the Built Environment: New Approaches to Architecture in Archaeology*, 1-11, (2020).
- Patton, M. Q.**, *Qualitative research and evaluation methods*. Thousand Oaks. Cal.: Sage Publications, 4, (2002).
- Pratt, M. L.**, "Arts of the contact zone." In *Negotiating academic literacies* (pp. 171-185). Routledge, (2012).
- Rabbat, N.**, "What is Islamic architecture anyway?" *Journal of Art Historiography*(6), 1, (2012).
- Radford, A., Morkoç, S. B., & Srivastava, A.**, *The elements of modern architecture: understanding contemporary buildings*. Thomas and Hudson, UK; 2014.
- Rojas, E., & Magalhaes, F.**, "The Reurbanization of the Brasilia Metropolitan Region." 42nd ISOCARP Congress, (2007).
- Said, E. W.**, *Culture and imperialism*. Vintage; 2012.
- Saleh, M. A. E.**, "The integration of tradition and modernity: A search for an urban and architectural identity in Arriyadh, the capital

of Saudi Arabia.” *Habitat international*, 22(4), 571-589, (1998a).

**Saleh, M. A. E.**, “Place identity: The visual image of Saudi Arabian cities.” *Habitat international*, 22(2), 149-164, (1998b).

**Saleh, M. A. E.**, “The changing image of Arriyadh city: the role of socio-cultural and religious traditions in image transformation.” *Cities*, 18(5), 315-330, (2001a).

**Saleh, M. A. E.**, “The evolution of planning & urban theory from the perspective of vernacular design: MOMRA initiatives in improving Saudi Arabian neighbourhoods.” *Land Use Policy*, 18(2), 179-190, (2001b).

**Shafiee, K.**, “Oil Industrialization in the Middle East.” In *Oxford Research Encyclopedia of Asian History*, (2021).

**Shin, S., Yoon, S.-Y., & Yoon, J.-E.**, “A Study on the Characteristics of Representation on ‘The new hierarchy’ that Appear in the SANAA’s Space Configuration of Museum.” *Korean Institute of Interior Design Journal*, 22(4), 149-157, (2013).

**Stake, R. E.** “Qualitative case studies.” *The Sage handbook of qualitative research* (3rd ed.). Sage Publications Ltd., (2005).

**Stanek, Ł.**, *Architecture in global socialism: Eastern Europe, West Africa, and the Middle East in the Cold war*. Princeton University Press; 2020.

**Thomas, G.**, *How to do your case study. How to do your case study*, 1-320, (2021).

**Tournikiotis, P.**, *The historiography of modern architecture*. Mit Press; 2001.

**Vitalis, R.**, *America’s kingdom: Mythmaking on the Saudi oil frontier*. Verso Books; 2009.

**Yin, R. K.**, *Case study research: Design and methods (applied social research methods)*. Sage publications Thousand Oaks, CA; 2014.

## الاندماج والتحول: معمار الرياض في الخمسينيات من القرن العشرين

نائف الغامدي<sup>١</sup> عبد العزيز الزهراني<sup>٢</sup> فهد العتيبي<sup>٣</sup> فيصل العصيمي<sup>٤</sup>

علي عجلان<sup>٥</sup> مهند الكديوي<sup>٤</sup> محمد النعيم<sup>٥</sup>

<sup>١</sup> قسم العمارة وعلوم البناء، كلية العمارة والتخطيط، جامعة الملك سعود، الرياض

<sup>٢</sup> قسم العمارة، كلية الهندسة، جامعة الباحة، الباحة، المملكة العربية السعودية

<sup>٣</sup> قسم العمارة، كلية العمارة والتخطيط، جامعة القصيم، بريدة، المملكة العربية السعودية

<sup>٤</sup> وكالة الأمانة لمشاريع البنية التحتية، أمانة منطقة الرياض، الرياض

<sup>٥</sup> قسم الهندسة المعمارية، كلية الهندسة، جامعة حائل، حائل، المملكة العربية السعودية

naag@ksu.edu.sa, Azahran@bu.edu.sa, F.alotaibi@qu.edu.sa, falosaimy@ksu.edu.sa, aajlan@ksu.edu.sa,  
malkiwi@alriyadh.gov.sa, Mm.alnaim@uoh.edu.sa

قدم للنشر في ١٤٤٦/١/١ هـ؛ وقبل للنشر في ١٤٤٦/٤/١٤ هـ.

**ملخص البحث.** يستهدف هذا البحث تحليل التحولات التي شهدتها المشهد المعماري في مدينة الرياض خلال الخمسينيات من القرن العشرين، وهو عقد يُعد نقطة تحول محورية في تاريخ المملكة العربية السعودية، حيث اتسم بفترة من التحضر السريع والتكامل الثقافي. وقد أسهمت الثروة النفطية المكتشفة في تلك الفترة في دفع عجلة التغيير في البلاد، وهو ما أتاح للرياض أن تظهر كلوحة تعكس تداخل التراث الإسلامي التقليدي مع التأثيرات المعمارية الحديثة. يركز هذا البحث على تحليل الواجهات الخارجية للمباني الرئيسة والتكوينات المعمارية التي تعود إلى تلك الفترة، مع إبراز التكامل بين مواد البناء والأساليب الحديثة إلى جانب العناصر التصميمية التقليدية. من خلال إجراء تحليل متعمق لحالات دراسية مختارة، تشمل المرافق الحكومية المتميزة والمنشآت السكنية، تكشف الدراسة عن تداخل دقيق بين الأساليب الحديثة الدولية والعناصر المعمارية المحلية والإسلامية. يعكس هذا التوليف التحولات المجتمعية والثقافية التي شهدتها المملكة العربية السعودية خلال تلك الفترة، حيث كانت البلاد تسعى لتحديد هويتها في ظل التأثيرات العالمية المتزايدة. تسهم نتائج هذا البحث في تعميق الفهم للتفاعل المعقد بين التقليدية والحداثة في سياق تطور العمارة بالمملكة العربية السعودية. كما تسلط الضوء على أن الاتجاهات المعمارية في الخمسينيات من القرن العشرين في الرياض لم تكن مجرد خيارات جمالية، بل كانت مرتبطة بعمق مع الديناميكيات الاجتماعية والثقافية والاقتصادية السائدة آنذاك. تؤكد الدراسة على أهمية وضع التطورات المعمارية ضمن سياقها التاريخي والثقافي الأوسع، وتقدم رؤى حول الحوار المستمر بين الماضي والمستقبل في المشهد الحضري للمملكة العربية السعودية.

**الكلمات المفتاحية:** العمارة، الرمزية، التشكيل، الحداثة، التراث، الرياض، المملكة العربية السعودية.