



The Heritage Jewel of Saudi Arabia: A Descriptive Analysis of the Heritage Management and Development Activities in the At-Turaif District in Ad-Dir'iyah, a World Heritage Site (WHS)

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Abstract: This study explores the change over time in the World Heritage Site (WHS) of Diriyah over three critical periods, focusing on three aspects: physical, social, and economic. Using a mixedmethod approach, the site's heritage management practices and development impact are investigated, and the impact of WHS inscription on the field of heritage in Saudi Arabia is demonstrated. A methodological approach is used in this study, which includes temporal analysis, analysis of historical images and photographs, non-participant observation and semi-structured interviews with key informants, site fieldwork, analysis of archival research, the content of official documents, related media, and promotional materials. The study concludes with a three-aspect matrix demonstrating Historic Diriyah's various development and change over time. Historic Diriyah is a WHS, and it can still project a successful massive makeover development if a sustainable development approach is used, and visual integrity and site authenticity are preserved. The site of Historic Diriyah and its surroundings were critical in promoting the site as a national identity, an international destination, and presenting a new development agenda for the entire kingdom of Saudi Arabia. It has a significant impact on policymakers who are interested in how heritage sites can be integrated into a larger vision.

Keywords: conservation; cultural heritage of Saudi Arabia; world heritage; heritage management; sustainable development; Historic Diriyah



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1. Introduction

The At-Turaif District in ad-Dir'iyah (often known and referred to as 'Historic Diriyah') has always been the heart and symbol of Saudi Arabian cultural heritage due to its historic values and significance that date back to earlier Saudi states. Historic Diriyah is arguably an illustration of the political center and seat of government of the house of Saud that extended across many years. Although the power center has moved from Diriyah to Riyadh, Diriyah maintained its cultural image through the remaining historic structures and ruins. Therefore, through Diriyah's UNESCO World Heritage List, the Kingdom continues the commemoration of Diriyah as the jewel of the Kingdom, and the recipient of investment for valuable future conservation and development projects.

Historic Diriyah is one of Saudi Arabia's most significant heritage sites. Having been inscribed on the World Heritage List in 2010, Historic Diriyah has undergone significant development on several levels since then [1]. Significant development has occurred not only in the historic designated area, but also in the surrounding areas and neighboring neighborhoods. In fact, the Saudi government has initiated a future project to attract 25 million visitors annually and a near USD 18.5 billion budget has been allocated to position Historic Diriyah and its surroundings as one of the most significant and visited destinations worldwide [1]. However, with such a long-term goal, heritage management

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and development activities in Historic Diriyah and its environs have encountered issues and challenges related to conservation and heritage management practice, and the need for integrating sustainable development measures has become far more pressing.

According to Alqahtany and Aravindakshan [2], in Saudi Arabia there are many trade-offs between increased urbanization plans and cultural heritage conservation, and a site's cultural heritage value may be reevaluated based on pressing economic factors and shifting conservation perspectives. The relationship between urbanization pressure and cultural heritage conservation poses long-term challenges for Saudi heritage sites and conservation efforts. Although a sustainable development approach to World Heritage Sites (WHS) is critical, there is a lack of knowledge in Saudi Arabia about the impact of urbanization on WHS [2]. As a result, the case study of Historic Diriyah, a WHS in Saudi Arabia, is being investigated in order to better understand the challenges associated with implementing development activities and conservation strategies in WHS in Saudi Arabia. Therefore, understanding the relationship between WHS and large urban development phenomena in a broader context. The goal of this research is to inform policymakers and stakeholders about how to approach WHS in terms of development activities and conservation strategies.

This study explores the change over time in Historic Diriyah and its surroundings through three historic periods using a diachronic approach in which the development and evolution of a subject (across-time) through different periods in history are investigated [3]. Firstly, Historic Diriyah in the period before it was inscribed into the UNESCO World Heritage List. Secondly, the period after its inscription to UNESCO, and, thirdly, after the establishment of Diriyah and quality of life program (In 2016 and 2017, the Saudi government has released the 2030 Vision and quality-of-life program 2020 which put forward mega-like projects for execution. It was part of the country's national plan to diversify the economy and improve quality of life in Saudi Arabia) (Figure 1) [4,5].

The Diachronic Heritage Management and Development Activities of At-Turaif District

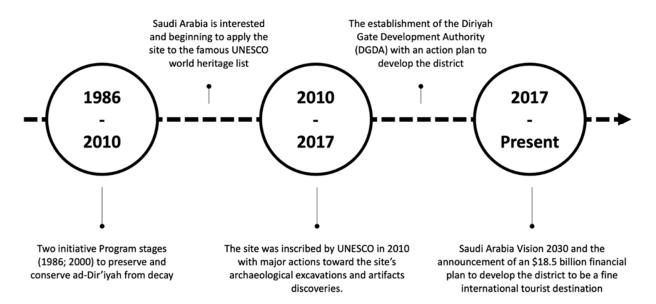


Figure 1. The diachronic heritage management and development activities of At-Turaif district.

The study emphasizes and discusses 'How have the At-Turaif District in Ad-Dir'iyah, a UNESCO World Heritage Site, heritage management practices changed over time and how have they influenced the heritage field in Saudi Arabia?' To be able to answer such a question, the analysis objective was divided into three levels to highlight the diachronic changes and development of the study case:

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 to map out the change over time of Historic Diriyah before it was inscribed to UNESCO and after;

- to examine Historic Diriyah heritage management practices and development impact through three aspects of analysis: physical, social, and economic;
- to analyzes the influence of the inscription of Historic Diriyah to the UNESCO World Heritage List on the field of heritage in Saudi Arabia.

Regarding the change over time Historic Diriyah has experienced, this study suggests that the conservation of Historic Diriyah should integrate more sustainable and careful conservation interventions.

The research review literature on WHS and sustainable development was discussed in the following sections. Following that, research methodology is introduced, and key methods are highlighted. The research illustrates a historical examination of three historical periods, providing an overview of major issues associated with each period followed by a discussion and recommendations section, highlighting the insights and lessons derived from the case study and its implementation in a broader context. The research then concludes with the most important findings.

2. Review of Literature

This section aims to review global issues related to WHS and urban sustainable development that have been discussed in academia, as well as to situate the case study in a larger context in the field of heritage conservation and WHS issues. As a result, the case study of Historic Diriyah, a World Heritage Site (WHS) in Saudi Arabia, highlights a better understanding of the challenges associated with implementing large development activities and conservation strategies in other WHS around the world. This review is divided into two main themes for the purpose to discuss: (1) World Heritage Sites WHS, and (2) Sustainable Urban Development. Finally, this section bridges the gap between sustainable urban development literature and WHS literature.

2.1. World Heritage Sites WHS

WHS stands for identification, nomination, and protection of heritage sites with exceptional outstanding universal values. Although new WHS cases and issues emerge, UNESCO and ICOMOS have made significant efforts to discuss the suitability of conservation strategies [6,7]. However, the development pressure on historic environments and WHS has promoted UNESCO and ICOMOS to propose the Historic Urban Landscape (HUL) approach in response to the ongoing concerns about WHS protection. As a result, the new proposed approach has broadened the discussion to include urban landscape as well as change management [8,9]. The HUL approach emphasizes the layers of multiple historical periods, including cultural, natural, and intangible elements. The goal of this approach is to prioritize protection, conservation, heritage, and change management in historic settings that are undergoing rapid urbanization development in which conservation strategies are integrated into urban development strategies [9].

For decades, WHS have been identified and listed, and operational guidelines are changing to respond to emerging issues related to different WHS contexts. Therefore, the need for contexts other than the Eurocentric is critical [10]. It is important to note that the study of WHS must be open to new approaches and agendas, particularly when urbanization forces are compelling, and must be more inclusive to issues and aspects of other contexts beyond western perspectives and perception.

2.2. Sustainable Urban Development

Rapid urban development in major cities is an unavoidable phenomenon as more people migrate to these areas. Indeed, rapid urbanization contributed significantly to the emergence of sustainable urban development [11–13]. Sustainability entails improving and enhancing economic, social, and environmental aspects [11]. The United Nations adopted cultural heritage as a major factor in the sustainable urban development agenda, while the

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Sustainable Development Goals (SDG) emphasize culture as an important aspect in urban development strategies.

In the international agenda, heritage conservation has been mentioned as a strategy for sustainability [14,15]. Although sustainable development research is well established, there is still a lack of focus on cultural heritage in urban development literature [16], as well as a scientific evaluation methodology to investigate heritage management and sustainable development [9,17]. However, it is becoming clear that many studies have addressed the issue of sustainable development in historic cities [18–20]. Furthermore, the incorporation of cultural heritage into sustainable urban development is visible in WHS cases [20–25]. Sustainable urban development is a topic studied and addressed by scholars worldwide, and its place within the WHS context is becoming well established. However, there is a disconnect between sustainable urban development and sustainable cultural heritage, with each reflecting different agendas and perspectives [26].

2.3. Sustainable Urban Development in the Context of WHS

The concept of World Heritage Sites is viewed as a global effort to foster a global sense of community [27], and it is also used as a branding and marketing driver for tourism promotion [28]. WHS, on the other hand, is criticized for being an international control tool and a projection of Western hegemony imposed on others [29–32].

One of the most pressing issues confronting historic sites and WHS is urban development. When urbanization and development have an impact on built heritage and its ability to generate revenue, heritage management must prioritize economic benefits and infrastructure goals [33]. Furthermore, heritage can be viewed as an economic driver for the betterment of local communities. Heritage is also a dynamic and ever-changing process [34,35]. Both cultural heritage and sustainability appear to be perusing the same goal of improving economic, social, and environmental viability. However, when conservation guidelines are overlooked, the consequences include the removal of a world heritage site from the list. In fact, there are several sites being withdrawn from the WHS list, many sites listed in the in-danger list, and numerous other cases facing compelling forces that impact WHS on various levels.

Cultural heritage and its attributes are a critical economic and social component of the urban transformation process. Tourism revenues, investment, and creating jobs are important economic and social benefits factors [9,36]. As a result, studying WHS that are experiencing urban phenomena from a context other than the Eurocentric perspective has become critical. More studies should be conducted to investigate the viability and feasibility of WHS in an era when economic goals and social prosperity are far more pressing. Although Historic Diriyah is a World Heritage Site, it is undergoing rapid mega development to elevate the visitor capacity and create a large international destination. The site is maintaining conservation operational guidelines while pursuing its large, ambitious goals. However, beyond the normative cases that simply adhere to WHS guidelines and sustainable approaches, the site of Historic Diriyah raises scholarly inquiries about the approach of adhering to WHS guidelines and sustainable development while still pursuing a mega-development vision. It opens the question of how far a WHS can be developed.

3. Research Design and Methodology

The topic of maintaining continuity in the midst of change is critical in historic environment settings, and careful planning measures are required [37]. This study bases its argument on the domain of change in historic environment; however, the investigation of change extends through major milestones in the development of historic areas in the case study chosen. Therefore, the focus of this research is on the relationship between a historic district and its conservation strategies in the midst of change. According to Arzu Kocabas [38], in order to assess the impact of conservation strategies, three factors need to be considered: the physical, social, and economic impacts of conservation. The study's analysis focuses on investigating the physicality of the built environment and assisting

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conservation activities. Furthermore, a second dimension of the study looks at the social needs of people who live in the historic area or in its immediate surroundings, as well as any others that will be affected by changes to the historic environment. In addition, socio-economic aspects are important and strongly linked to the physical environment conservation, with safeguarding goals contributing to the viability of the historic environment and its community.

This study employs a framework that addresses the physical forms of the site, the site's social impacts on local communities, and the site's economic aspects. It is essentially a "longitudinal" study, examining the conservation activities and development of the case study and how they change over time. The three aspects of the study—physical, social, and economic—are investigated across three historic periods of the Historic Diriyah site, which mark pivotal points in the district's historic change and evolution: (1) the heritage state of Historic Diriyah before its inscription to the UNESCO World Heritage List, (2) the heritage state of Historic Diriyah after its inscription to the UNESCO World Heritage List until 2017, and (3) the heritage state of Historic Diriyah after the establishment of the Diriyah Gate Development Authority (DGDA) in 2017.

The process of cultural heritage and urban development highlights several aspects such as economic, social, and physical. Both concepts are complex, particularly when the process of change and urbanization are compelling and cultural heritage should be conserved. As a result of its complexities, understanding such a process presents methodological challenges. This research employs a mixed-methods research design, which includes: (1) site visits and fieldwork; (2) data collection and analysis of public documents and databases; (3) data collection and analysis of historical images, maps, and photographs; (4) review of relevant literature; and (5) key informant interviews. In Figure 2, a flowchart of the research design and methods is illustrated.

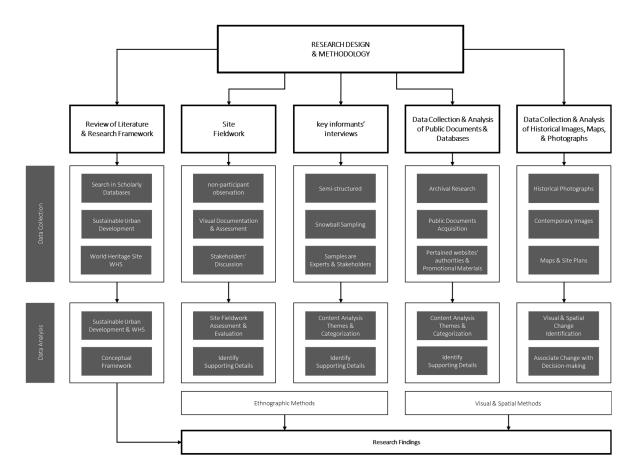


Figure 2. The research design and mixed methods chart.

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The review of literature has led to the identification of the research's main themes and theoretical framework, as well as the positioning of the argument within a broader international audience in the field of heritage conservation. This step entailed searching through scientific databases such as Web of Science, Scopus, Google Scholar for relevant sources. Specific keywords such as urbanization, urban development, sustainable urban development, world heritage sites, cultural heritage, and Diriyah were used to guide the search. The search for secondary sources was then followed by a "snowball" technique to look for relevant sources mentioned in previously collected sources. The review of literature promoted the development of a framework in which the three aspects are investigated over three time periods.

An ethnographic method used was systematic exploratory research, including non-participant observation, interviews, and site fieldwork. During this phase, primary information, discussions with stakeholders, visual documentation, and assessment are gathered.

Archival research, including primary and secondary sources, was acquired for the analysis of public documents and databases. ADA, DGDA, UNESCO, the Darrah Foundation, and other research centers were surveyed. Through the paper, direct evidence is used to support the argument, and other content analysis of official documents, websites of government institutions, related media, and promotional materials has been conducted.

As a result, historical images, maps, and photographs demonstrating change provide valuable information about change overtime. There is an increasing interest in using historical images and photographs in urbanization studies [39]. Public documents, archives, publications, and web archives are used to acquire historical images, maps, and photographs. This collected information is examined in order to document and understand the spatial and temporal change of a case study's cultural heritage change, the built environment, and to link change to decision-making actions. In this regard, photographs and maps are used to identify spatial change and to highlight actions associated with change [40].

In addition, interviews with key informants about the Historic Diriyah development process were conducted between 2021 and 2022. The interviews were semi-structured and covered major topics such as Diriyah's history, significance, conservation efforts, urban development projects, challenges, economic aspects, social benefits, and future plans. The research design used a mixed-methods approach that included ethnographic methods as well as visual and spatial methods, with both methods contributing to insightful information and increasing research validity.

4. The Diachronic Heritage Management and Development Activities of At-Turaif

Three time periods were examined to represent three accumulative works with different agendas that influenced the At-Turaif district in order to better understand its development, management, and activity processes (Figure 3). As a first step toward UNESCO World Heritage Site listing, the first period (1986–2010) saw a focus on preservation efforts to slow the rate of decay and propose a development master plan. The government's goal of inscribing the site, maintaining its status, and enacting the proposed implementation plan was emphasized during the second time period (2010–2017). In the most recent time period (2017-Present), Diriyah proved to be the nerve center of an ambitious plan to market the area as a top-tier international tourist destination; the goals and aspirations of this phase extend far beyond merely having the site added to the World Heritage List.

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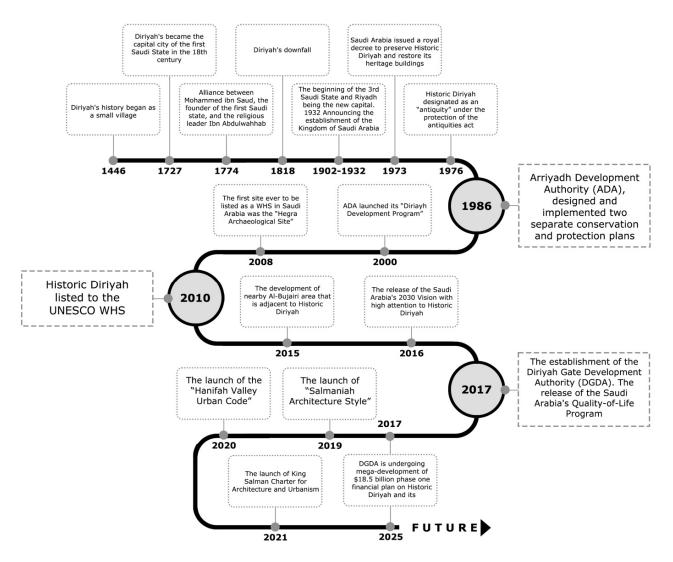


Figure 3. Timeline and major milestones related to the heritage management and development activities of At-Turaif district.

4.1. Heritage Conservation and Development before 2010: From Social Migration and Physical Decay to Ruins' Protection and Developmental Ideation

According to Al-Othaymeen [41], Diriyah's history began as a small village in 1446 and has grown steadily since then. It grew at an exponential rate during the historic alliance in 1744 between Mohammed ibn Saud, the founder of the first Saudi state, and the religious leader Ibn Abdulwahhab. It continued to grow until its demise in 1818 [41]. However, the historic alliance between the two authoritative political and religious entities formed Diriyah's unique urban settlement and contributed to its distinct built environment [42]. Diriyah was a significant urban settlement located in the heart of the Najd region, and more specifically, situated in the Wadi Hanifah Valley, where human activities and natural resources collided to form one of the most significant settlements in the Arabic peninsula at the time. Indeed, Diriyah derived some of its distinct characteristics from its location on the Wadi Hanifah Valley, which formed an oasis settlement in the heart of the desert [43] (Figure 4).

Historically a separate town, Diriyah is now an integral part of Riyadh, the capital of Saudi Arabia. In addition, it features a sizable urban fabric that illustrates the distinctiveness of Najdi architecture and urban design uniqueness. It is a political power in the middle of the Arabian desert and has been from many generations. It is also a living example of how people can adapt to living in a very hot and dry environment (Figure 5) [44,45].

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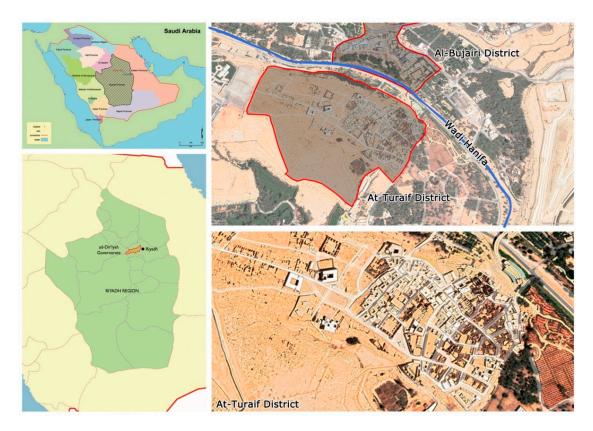


Figure 4. At-Turaif District in Ad-Dir'iyah and its unique location on the Hanifah Valley and part of Riyadh region.



Figure 5. The architecture of At-Turaif district represents authentic Najdi style. Source: Authors.

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The Historic Diriyah district is significant because it was the capital city of the first Saudi State in the 18th century (founded in 1727) [41]. It had a significant political importance at that time because critical historical events occurred in the district that illustrates Historic Diriyah's significant value today and shaped many aspects of Saudi Arabia's future.

The challenge faced by Historic Diriyah is in the migration of its inhabitants to new settlements [46]. However, this is a challenge faced by other historic areas in Saudi Arabia as well as many traditional settlements around the world. In Saudi Arabia, the oil boom era during the 1960s and 1970s encouraged most people to move out of their traditional houses to inhabit new areas built with new construction materials in search of a more contemporary lifestyle [47]. In fact, there is evidence that in many dwellings in central Riyadh, landlords of traditional houses built long ago applying cement material onto the outer surfaces, i.e., the *façade*, of their mud-brick houses to project an image of progress, an adaptation to preferences of tenants for a more modern design. This action clearly indicates a time when local communities favored modern buildings and infrastructure over historic homes and neighborhoods. These behaviors are echoed by global trends worldwide. For example, during the last third of the 20th century, the abandonment of traditional rural dwellings, people's migration to larger cities, and the adoption of modern construction techniques irrelevant to the architectural heritage and to make their houses look attractive have been frequent in many European countries [48]. In fact, architects and planning authorities in Saudi Arabia had a generally negative view of traditional houses and historic districts during the oil and economic reform era. They turned away from these old buildings and preferred more modern ones, thinking of them as backward and unworthy [49].

Eventually, inhabitants of Historic Diriyah moved out, in search of a more modern lifestyle and new opportunities. As a result, Historic Diriyah was left to decay, becoming, in effect, a standing ruin, having only nostalgic and memory values [50]. In 1973, Saudi Arabia issued a royal decree to preserve Historic Diriyah and restore its heritage buildings, which is regarded as the first conservation effort on Historic Diriyah. Then, in 1976, it was designated as an 'antiquity' under the protection of the antiquities act 26M (1972), which resulted in the restoration and reconstruction of some monuments [51]. However, before the inscription of Historic Diriyah to UNESCO's WHS in 2010, the Arriyadh Development Authority (ADA), designed and implemented two separate conservation and protection plans [52,53]. The ADA was working on the conservation and development of Historic Diriyah before these two efforts. In 1986, the ADA proposed a development study that in its first phase included a future directive plan to guide development in Diriyah, as well as a specific proposal for the development of historic Diriyah. Moreover, the proposed study assumed a tentative urban design for the historic area in Diriyah, and included aspects of preserving the built heritage, preserving the historic monuments, and improving public amenities.

The second phase of the ADA emphasizes two major goals: preserving and improving Diriyah historic attributes, and prescribing services and amenities that contribute to this goal. Furthermore, the second phase includes restoration and rehabilitation plans for historic areas that take into account heritage values (see Figures 6 and 7) [52]. The desired outcome of the project, on the other hand, includes parameters for protecting the site as well as specific steps that can be taken to delay the deterioration process. As a result, this development plan has not yet been fully implemented; rather, it was a startup plan that led to significant development plans.

Although the ADA attempted to propose plans at this early stage to preserve the physical structures and environment as well as developing urban design solutions for reusing the historic site, these efforts fell outside the scope and guidelines established for WHS, but the ADA's actions were an important step in preparing Historic Diriyah for inclusion on the list of UNESCO WHS.

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Figure 6. Model of the Historic Diriyah showcasing the conservation working area. Source: Authors.



Figure 7. Example of the building restoration and rehabilitation process. Source: Authors.

In 2000, the ADA again launched its 'Diriayh Development Program' which included status quo studies, a schematic concept design, identification of public-private roles, and an overall implementation plan. Moreover, the Diriyah development program consisted of several sub-programs: (1) an urban development program, (2) an environment development program, (3) a heritage and cultural development program, (4) a socio-economic program, and (5) a public amenities program. Furthermore, this program considered socioeconomic aspects, the urban environment, connectivity between Diriyah and Riyadh city, and the protection and conservation of Diriyah's heritage assets. The conceptual plan, on the other hand, included a vision that took four dimensions into account: (1) human-centered development; (2) a recognized international heritage; (3) a historic national depth linked to the establishment of the Saudi State; and (4) a local dimension that provides best public services and amenities to promote a better place (Figure 8).

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Figure 8. A view of Diriyah district and Bujairi quarter development. Source: Authors.

Renovating streets, neighborhoods, or towns with a significant historical heritage necessitates a comprehensive approach as well as a thorough understanding of the historical facts and values [54]. At this point, the ADA realized that in order to develop historic Diriyah and the later-developed traditional neighborhoods of Diriyah, they needed to see it in a broader context in order to elevate the Diriyah site's development output. As a result, the ADA acknowledged that developing only the historic Diriyah is insufficient and that it must be part of a comprehensive plan that includes the entire town of Diriyah in order to achieve the ambitious goal of becoming a cultural tourist destination [55]. Concerns were raised when it was discovered that the surrounding areas and neighborhoods were jeopardizing the quality of the heritage site in terms of sustainable urban development integration. As of this point, the town of Diriyah appeared unhomogenized between its various areas, lowering the quality of the heritage site. As a result, the foundation of development consisted of a comprehensive plan for the city of Diriyah that included historic areas, old neighborhoods, and modern neighborhoods. Furthermore, to ensure the development's continuity, the ADA encouraged development-driven activities and local community participation in the development phases. Finally, the ADA established private partnership guidelines that allowed the private sector to participate in the various phases of the program [53].

Cultural heritage is being currently broadened in order to include natural environment and vegetation resources and assets among its values and key factors [56]. Despite the fact that the 'Diriayh Development Program' encouraged urban and environmental developments, Al-Nashwan [57] has identified several urban and agricultural impacts resulting from the urban and agricultural development at the intersection of Diriyah and the Hanifah Valley. These urban and agricultural developments have an impact and change on the environment of Hanifah Valley. This shift is attributed to the lack of policy and regulation, as well as the competitiveness of carrying out economically driven projects and developments. On the one hand, urban development in the form of annexation of

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neighborhoods, construction of road networks and bridges, the removal of soil, littering, and pollution have degraded the Valley environmental settings as well as its streamways. The development of agricultural lands and their structural boundaries, on the other hand, have contributed to the deterioration of the Valley's streamways [57].

Economically, Historic Diriyah at the time that it was a standing ruin did not generate any income or provide for the local economy even though it was a place of history and importance. On the contrary, the district was an expense to maintain, even at the minimum requirements of conservation and preventive interventions. This economic burden is due to local communities moving out of the district and becoming distant, hence not participating in the site's major activities. The economics of the site were neither contributing to the gross income of the government, nor to the local communities, despite the agenda proposed in the ADA's 2000 Diriyah development program.

The first period indicates care and attention towards Historic Diriyah due to its significance and association with the establishment of the Saudi State. This care and attention led to major studies, master plans, as well as protection and restoration activities which were reflected in the Diriyah Development Program. At this stage, protection of the remaining ruins, slowing down the rate of decay, and proposals for development plans were essential steps in preparation for the UNESCO WHS inscription. The enhancement of heritage elements related to a city or country's history is a global trend. These assets are used by governments not only as tourist attractions, but also to reinforce collective identity [58,59]. Therefore, the Saudi government envisioned Historic Diriyah to be a source of the country's national identity and a recognized international travel destination, and this vision was confirmed by Historic Diriyah's UNESCO inscription in 2010.

4.2. Heritage Conservation and Development after 2010 until 2017: WHS Inscription and Implementation Plan

During this time, Saudi Arabia expressed a strong desire to have Historic Diriyah listed as a UNESCO WHS. Around that time, significant progress was made in the heritage field, resulting in the activation of numerous heritage projects throughout the Kingdom, including the submission of multiple files with Outstanding Universal Value (OUV) to the UNESCO WHS. It was a period when Saudi Arabia expressed a keen interest to reclaim its national pride and identity through its heritage. The first site ever to be listed as a WHS in Saudi Arabia was the Hegra Archaeological Site in Al-Ula, which successfully inscribed on the UNESCO WHS list in 2008. Consequently, Saudi Arabia was encouraged to pursue further additions to the list and to convey to the international community an image of progress regarding its cultural heritage sector. As a result, Historic Diriyah was inscribed by UNESCO in 2010 and had a positive impact on the Saudi Arabian heritage sector (Figure 9). The district was proposed because of its historic connection to the establishment of Saudi Arabia, as well as its potential to project the country's national pride and commemorate the earlier Saudi states.

Being listed in the UNESCO WHS required prerequisite measures that were demonstrated in the first period. The ADA, along with other international, national, and local stakeholders, prepared the required documents for the world heritage review committee. At this stage, the ADA had taken major actions toward the site's archaeological excavations and artifacts discoveries [60], protection and conservation, and management and implementation planning that included both renovation and adaptive reuse proposals [55,61]. The ADA has successfully set up the protection measures along with the conservation plan, even though the activation plan for tourism purposes remains inactive until today.

According to Bendakir [62], the conservation measures and guiding principles used in Historic Diriyah aligned with the Operational Guidelines for the implementation of the World Heritage Convention [63], that is:

 Being non-intrusive: to ensure old and new structures are compatible; intervention strategies should be minimal, distinguishing between old and new additions and repair. Sustainability **2022**, 14, 10718

2. Ensuring reversibility: conservation interventions should be reversible without damaging the original structure.

3. Use of original materials and traditional techniques.

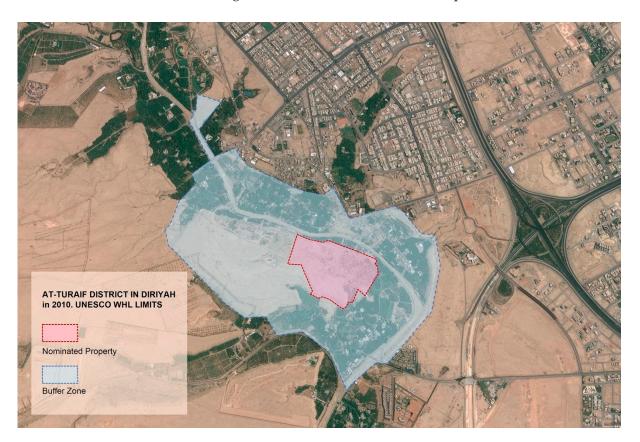


Figure 9. At-Turaif District in ad-Dir'iyah property boundaries and buffer zone.

Historic Diriyah had several major issues and challenges in terms of risk assessment. For example, the site is vulnerable to both human risks (migration and abandonment of historic buildings, a lack of cultural heritage specialists, and mechanical vibrations) and natural risks (rainfall, insects, animals, and temperature) [64]. Al-Tokhais and Thapa [65] identified several issues related to the site condition, such as: the site consists of a fragile structure made of mud structural material; the site's inscription is attracting worldwide attention, and tourism pressure soon will be an issue; and urban development pressure poses certain risks to the site (Figure 10). In addition, the site faces major challenges such as seasonal flooding, loss of authenticity, as well as a loss of traditional agricultural practices and irrigation systems.

The Saudi authorities invested in significant amounts of conservation work during this period due to the need for regular maintenance of the mudbrick material (which rapidly degrades), as well as the requirement of UNESCO that the Kingdom provide an annual conservation report. Concerning the aforementioned conservation activities, Historic Diriyah and its surroundings have experienced a major turning point in conservation management activities which has led to a shift in focus from protection to various intervention strategies. For example, intervention strategies such as restoration, rehabilitation, and adaptive reuse activities with modern additions, new structures, and new projects' activation are widely implemented within the district [61]. Specific examples of investment in modern additions and new structures include additions of new structural bridges, modern galleries, exhibition space, museums, long catwalks, and necessary functional facilities (e.g., a visitors' center) (Figure 11). In particular, the visitors' center has implemented new design features, projecting a contemporary traditional architecture that responds to modern needs and

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requirements [66]. These new open-air museum implementations are part of the tourism planning goals that Historic Diriyah is promoting [64].

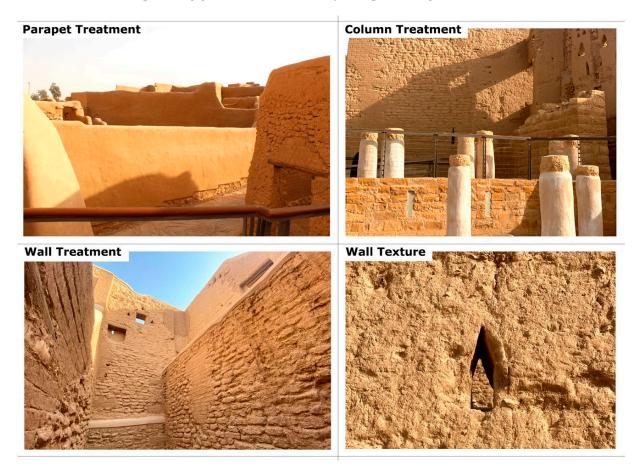


Figure 10. Samples of At-Turaif conservation treatment and construction. Source: Authors.



Figure 11. The new additions and installments inside At-Turaif district. Source: Authors.

Historic Diriyah demonstrates a spectacle of a unique urban settlement and an environmental setting of Wadi Hanifah which projects an interaction between human and its environment. These urban settlement and environmental values underline the WHS' criteria V which in Historic Diriyah states:

"The site of at-Turaif District in ad-Dir'iyah illustrates a significant phase in the human settlement of the central Arabian plateau, when in the mid-18th century Ad-Dir'iyah

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became the capital of an independent Arab State and an important religious centre. At-Turaif District in Ad-Dir'iyah is an outstanding example of traditional human settlement in a desert environment". [67]

In terms of environmental upgrades, the ADA has conducted a massive rehabilitation plan for the Hanifah Valley Wetlands where Historic Diriyah is situated. The Hanifah Valley Rehabilitation Project is the recipient of the Aga Khan Award (2008–2010 cycle). Not only has the Hanifah Valley Rehabilitation Project improved Historic Diriyah, but it has also facilitated the launch of the Hanifah Valley Urban Code in which urban codes and regulations apply to the Hanifah Valley jurisdictions that overlap with Historic Diriyah [68] (RCRC is "Royal Commission for Riyadh City," which is the new name of ADA "Arriaydh Development Authority.").

Historic Diriyah has gained some destination prominence after its inscription to UNESCO and received more site visits and appreciation from both local inhabitants as well as international visitors. However, its role remains limited to serving as an open-air museum showcasing early examples of the architectural and urban patterns of the old Najdi traditional style with no additional usage. At this stage, we argue that listing the site on the WHS has only contributed to the preservation and conservation of the site in terms of protecting its remaining cultural ruins and slowing down the process of deterioration. During this period, Historic Diriyah has not experienced any major development, other than the development in the Al-Bujairi area which is a nearby neighborhood close to the designated At-Turaif district [69] (Figure 12).









Figure 12. The architecture of Al-Bujairi Quarter. Source: Authors.

The social aspects of Historic Diriyah remained relatively constant at this stage, despite the gradual change in the population of Diriyah city and its new neighborhoods. However, at this point, the UNESCO inscription had no effect on the district's social aspects, and the development activities required as a result of the UNESCO inscription had not yet been incorporated into Historic Diriyah conservation and development plans. This is because the Saudi government owns the site's historic structure, making the social aspects not a focus because the site is not habitable. In the same vein, the funding requirements for conservation and development were high, as Historic Diriyah demanded a massive budget for implementing necessary conservation and intervention strategies. Due to the low level of economic activity during this time, the site was temporarily closed while plans were developed and implemented. The plans resulted in Historic Diriyah experiencing massive change led by the Diriyah Gate Development Authority's new master plan (The master plan is part of the USD 18.5 billion budget to develop Diriyah into a tourist destination (e.g., new boutiques, hotels, fine dining restaurants)).

4.3. Heritage Conservation and Development after 2017: From Conservation Activities to Major Tourist Destination and an Exemplary Project for the Saudi Heritage Sector

Not until Saudi Arabia's 2030 Vision and Quality-of-Life Program was unveiled in 2016 and 2017, respectively, did it become clear that it was a high priority of the Saudi government to diversify the economy and enhance citizens' well-being [4,5]. With its rich history, architecture, and political significance, as well as its inscription to the prestigious UNESCO list, Historic Diriyah's significance has grown exponentially and the need for its

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development became essentially central. Historic Diriyah has taken a major step forward with the establishment of the Diriyah Gate Development Authority (DGDA) and the announcement of a USD 18.5 billion phase one financial plan to develop the district and promote the site as the "Jewel of the Kingdom" and a fine international tourist destination (Figure 13).

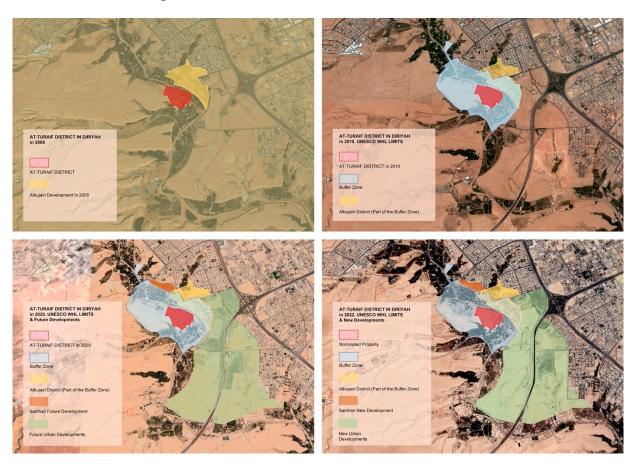


Figure 13. Change overtime from past to present showing the increase of size and future developments.

The At-Turaif District and its immediate surroundings will undergo a massive facelift by 2025 as part of DGDA's massive makeover plans. The DGDA agendas emphasize place/destination branding by implementing various entertainment activities; however, most visitors indicate that enjoying Historic Diriyah's historical values is the most important reason for a visit [70]. The project promises to have an enormous impact on the Saudi Arabian economy, with Historic Diriyah serving as a champion for national gross income. According to Alqahtany and Aravindakshan [2], Historic Diriyah has well-developed infrastructure; however, the vast transformation plan significantly changes its cultural and heritage landscape. In the same vein, we argue that such lofty goals may have unintended consequences for the site's social and physical aspects. The major development at Historic Diriyah raises some concerns about the authenticity and integrity of the designated WHS and its surroundings (OUV).

The WHS and the DGDA project are both contributing to the Historic Diriyah branding. The Historic district site being promoted as the "Jewel of the Kingdom of Saudi Arabia", signifies the assurance of the planned agendas for the area to soon become a unique international destination attracting visitors from all around the world. Historic Diriyah promotes that it is one of a kind, that there is "only one Diriyah", [71] indicating its rareness and unique values. This importance led the Kingdom of Saudi Arabia to announce February 22 as a new annual national day in Saudi Arabia ("The Founding Day"), marking

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the establishment of the first Saudi state in Diriyah. The Founding Day signifies one of the OUV of Historic Diriyah, which connected with VI criteria that states:

"The At-Turaif District was the first historic centre with a unifying power in the Arabian Peninsula. Its influence was greatly strengthened by the teachings of Sheikh Mohammad Bin Abdul Wahhab, a great reformer of Sunni Islam who lived, preached and died in the city. After his enduring alliance with the Saudi Dynasty, in the middle of the 18th century, it is from ad-Dir'iyah that the message of Salafiyya spread throughout the Arabian Peninsula and the Muslim world". [67]

Several events have also been promoted since Historic Diriyah was listed as an international heritage place to be treasured. Diriyah's connection to the Najdi architectural and urban style, for example, is aligned with WHS criteria IV:

"The citadel of at-Turaif is representative of a diversified and fortified urban ensemble within an oasis. It comprises many palaces and is an outstanding example of the Najdi architectural and decorative style characteristic of the centre of the Arabian Peninsula. It bears witness to a building method that is well adapted to its environment, to the use of adobe in major palatial complexes, along with a remarkable sense of geometrical decoration". [67]

A recent architectural trend in Saudi Arabia combines traditional Najdi architectural principles with the needs of today's society. Diriyah and other Najdi styles in the central region of Saudi Arabia have paved the way for this new trend (Figure 14). This initiative has been formulating significant Najdi architectural style principles, labeled 'Salmaniah Architecture', referring to King Salman the Custodian of the Two Holy Mosques [72]. The Salmaniah architectural style has recently received national recognition from both the architectural community and the people of Saudi Arabia, as the new style promotes the country's national identity and heritage. In 2021, Saudi Arabia's Architecture and Design Commission launched the "King Salman Charter for Architecture and Urbanism", which established guiding principles for integrating traditional architectural styles with modern uses, building on previous efforts to use the Salmaniah Architectural style. The King Salman Charter identifies five core values that define a new approach to promoting Saudi architecture and urban regionalism that is informed by and respects the Saudi architectural and urban planning wisdom and heritage [73].





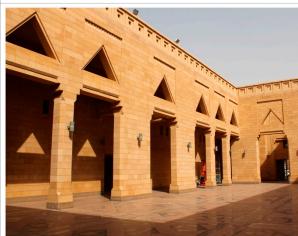


Figure 14. Example of the contemporary traditional architecture in Saudi Arabia-Qasr Al-Hukm District. Source: Authors.

Salmaniah architecture and the King Salman Charter promote not only the Najdi style of architecture, but also the urban pattern, with subtle but real influences. Today, the new project proposal in Diriyah reflects a strong influence from the traditional urban patterns,

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respecting Historic Diriyah's visual integrity, and coexisting with the site as a continuation of the identity and urban fabric. On the other hand, studies indicate that many European cities that were quickly rebuilt after World War II are reconsidering the negative impact that certain policies and architectural trends had on their historical fabrics [74]. However, this project in Diriyah has signaled to urban and architectural policymakers in Diriyah and Riyadh that respecting the traditional urban fabric and architectural context is the new agenda that will play a significant role in achieving the 2030 Saudi Vision. We believe that these new agendas and actions in promoting architecture and urban settings are primarily inspired and guided by cultural and social references, which may shape perceptions of future Saudi projects and aid in the preservation and reclamation of the country's cultural identity.

WHS stewardship is constantly increasing tools, skills, and knowledge, including but not limited to comfort standards, conditioning, and its impact on heritage, in order to provide best practices and care of historic buildings [75]. As a result, the DGDA is currently developing its own historic codes of regulation and investing in the local community's human resource development in order to prepare new generations of heritage conservationists who understand the critical role of preserving the WHS and are equipped with additional knowledge and skills for the appropriate and prosperous development of such a site and its surroundings in a sustainable manner (see various attempts to develop Diriyah's historic code: e.g., Hanifah Valley Urban Code: [68]; Samhan Heritage Plots: Design Brief: [76]; DGDA and Atkins' Development Control Regulation: [77]).

Regarding the physical structure of the site, its surroundings, and its conservation state, the WHS and its buffer zone are approached with caution due to the UNESCO requirements and restrictions placed on the WHS. However, several signs of excessive restoration (Figure 15) and adaptive reuse strategies are evident. This issue, we contend, has sparked debate about the appropriate level of restoration that should be applied. On the one hand, there are conservationists who believe in the value of ruins and advocate for minimal intervention. Excessive restoration and adaptive reuse interventions, on the other hand, are used to meet the new functions and uses proposed for the site during the WHS inscription process. In theory, the inscription documents carefully craft historic and construction materials studies, as well as to implement restoration and adaptive reuse [55]; however, the issue arises with practical implementation. It seems also that the element of time and a sense of urgency for making progress are playing a major role in projecting a new structural image and resulting in excessive restoration work. This excessive restoration work and new additions are arguably undermining the site's integrity and authenticity.







Figure 15. Part of the restoration method applied to the district original walls. Source: Authors.

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At this point, the designation of Historic Diriyah as a protected and developed site has had a significant impact on public awareness and appreciation. Local communities in Diriyah, Riyadh, and other Saudi Arabian provinces have observed and witnessed the benefits of Historic Diriyah becoming a world heritage site and a source of national pride and identity. The project promises to generate 55,000 job opportunities for the local community of Diriyah, Riyadh, as well as attract talent from across the Kingdom [71]. Local communities of Diriyah are involved in various stages of development in a variety of ways, for example, Diriyah natives are recruited to narrate histories of Historic Diriyah that have been documented from the older generations of Diriyah residents and families. Another program attracts young people to participate in the Adobe Building Construction programs in which craftsmanship and Adobe building techniques and knowledge are passed on to new generations. In addition, Historic Diriyah has evolved into a brand and entertainment destination that can be managed in accordance with heritage standards. However, more children and the elderly should be included in the visitor demographic, and a creative mix of entertainment events and activities is required [70]. Eventually, we believe that the Diriyah project should move forward with a more sustainable development strategy, ensuring local communities' positioning in their environment and empowering them in the community participation process involving the development of Historic Diriyah and its heritage management plans.

5. Findings and Discussion

Historic Diriyah has evolved over time, experiencing major milestones in its conservation and development, ranging from simple site protection to changes of focus of heritage management practice, to the application of various conservation strategies, to, finally, a massive branding and infrastructure makeover to prepare the site as a major international destination. This evolution led us to divide the site's development into three distinct time periods and three dimensions (Table 1).

To avoid violating its conservation measures and potentially jeopardizing its inclusion in the WHS, the DGDA should be more cautious. It is true that listing a site on the World Heritage List restricts large-scale development, particularly within the site's property boundaries and buffer zone. However, suppose the visual integrity and authenticity of the site are preserved, the world heritage convention is followed, and a proper development strategy, such as the Historic Urban Landscape approach, is implemented [9]. New structural additions and functions are permitted in this case, and further development outside the buffer zone is encouraged. Thus, we suggest that restoration, adaptive reuse, and activation planning take the necessary time for more careful and thoughtful practical implementation.

The three identified periods reflect three accumulative works but hold different agendas: (1) the first period focused on protection efforts to reduce the rate of decay and propose a development master plan, representing a major step toward preparation for the UNESCO WHS listing and for the site to become a candidate for inscription; (2) the second period underlined the government's objective to inscribe the site and maintain its status as well as carry out the proposed implementation plan; (3) the third period indicated that Diriyah had become a center of enormous vision to promote the site and its surrounding as a world-class international destination; in this stage, the mission and objective go beyond the inscription of WHS; however, WHS listing was still part of a new master vision to maintain the district, but not an end in itself.

The level of heritage management in Historic Diriyah has changed three times as a result of modern needs and developments. In a broader sense, we argue that the Historic Diriyah's agendas and priorities should be positioned and treated as an integral strategy within a much larger context. Instead of viewing Historic Diriyah as a separate entity from the overall heritage conservation system and Riyadh's historic development strategies and policies, Historic Diriyah should be aligned with the country's heritage conservation strategies and policies, as well as the city of Riyadh. On policy and practical levels, we

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argue that WHS, such as Historic Diriyah, must fully integrate a sustainable development approach that strikes a balance between physical environment requirements, social needs, and economic strategies, while also encouraging community participation and involvement. In this regard, the Historic Urban Landscape approach HUL [9] is a better fit for historic areas undergoing development with both urban and environmental elements that require change management.

Table 1. A matrix showing the main points of each time period in Historic Diriyah and the three aspects of analysis.

Aspects of Analysis	Heritage Conservation and Development before 2010	Heritage Conservation and Development after 2010 until 2017	Heritage Conservation and Development after 2017
Physical	 The site was in poor structural condition and required multiple, immediate interventions The site and buildings were constantly losing elements with defining values Efforts to protect the site and reduce the rate of decay Conduct of archaeological excavations Gradual loss of physical environment lands and landscape Loss of heritage craftsmanship and farming practices 	restorationRuins appearances are maintained but excessive	 Massive development of architectural restoration and retention Integration of new additions and functions Reuse of the site as museums and exhibitions
Social	 Social migration and pursuit of modern life There is no participation of local communities in the heritage management process No social impact 	 Still no community participation at this stage Management process implemented No social impact evident 	 Local community involvement in the documentation of the site's history, as well as its operation and development Social impact affect Diriyah and Riyadh residents as well as other citizens from different regions
Economic	 No economic gains evident Site investment for protection and restoration The site is opened for visitors but lacks services and infrastructure 	 No economic gain evident Site investment for protection and restoration The site is opened to the public, but lacks services and infrastructure 	 There is still no economic gain visible, but a clear path to development is evident and is being followed The site has not yet reopened for visitors yet, but services and infrastructure are under construction The district has grown into a major hub for national events

Furthermore, we believe that Historic Diriyah should pursue a more integrative and appropriate conservation strategy that encourages the slow and gradual implementation of conservation activities, as well as balancing between the competing needs of development and historic environment preservation. According to findings of this study, the Historic Urban Landscape HUL is a more suitable conservation strategy and heritage management approach. The significance of implementing HUL approach is that it allows for development in historic areas while also governing and controlling change to ensure the conservation measures required of any WHS are maintained. In order to remain Saudi

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Arabia's "Jewel of the Kingdom", Historic Diriyah must balance its aspiration for massive development with principles of urban sustainability and the HUL.

6. Conclusions

This study examines the case of Historic Diriyah and its conservation and heritage change over time through three significant periods. A literature review was conducted to set the research problem in the broader context of WHS and sustainable urban development. Historic Diriyah's heritage management practices and their effect on the city's growth have been studied using a mixed methodology. Details of the Historic Diriyah case study that shed light on the broader WHS context are discussed, and actionable suggestions are offered.

The analysis organizes narratives and findings into three schematic aspects: physical, social, and economic, with a historic examination of significant aspects in each period. The paper concludes that although Historic Diriyah is a WHS inscribed in the list, it still can project a massive makeover development provided that its integrity and authenticity remain intact and applying a sustainable development approach toward physical, social, and economic aspects of development. Historic Diriyah and its surroundings are thought to have played an important role not only in promoting the site as an international destination, but also in putting forward a new development agenda for the entire kingdom of Saudi Arabia; that is, retaining the Kingdom's source of local identity through the implementation of the Salmaniah Style to the physical setting of new developments.

The future of At-Turaif District looks bright thanks to the ongoing development of specific historic codes of regulation. By investing in the local community's human resource development, we can ensure that future generations of heritage conservationists will be aware of the importance of protecting the WHS and will have the tools necessary to ensure the site's continued success and the sustainability of its surroundings. As a result, Historic Diriyah has had a significant impact on architectural and urban policymakers in terms of appreciating how heritage places can be integrated into a larger vision.

This study attempted to investigate the dichorionic management and activities of Historic Diriyah by providing key insights into major milestones in the complexity of the development of a WHS site. Such an examination raises some questions and considerations for future research to fully encompass the entire development process. Studies on the impact of new urban development operations on Historic Diriyah, the future of World Heritage Sites undergoing megadevelopments, residents' involvement and attitudes toward cultural heritage experiences and social wellbeing, tourism management issues and visitors' capacity in megaprojects' WHS-related sites, and tourist attitudes toward such experiences, are to name a few future studies that expand upon this research.

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