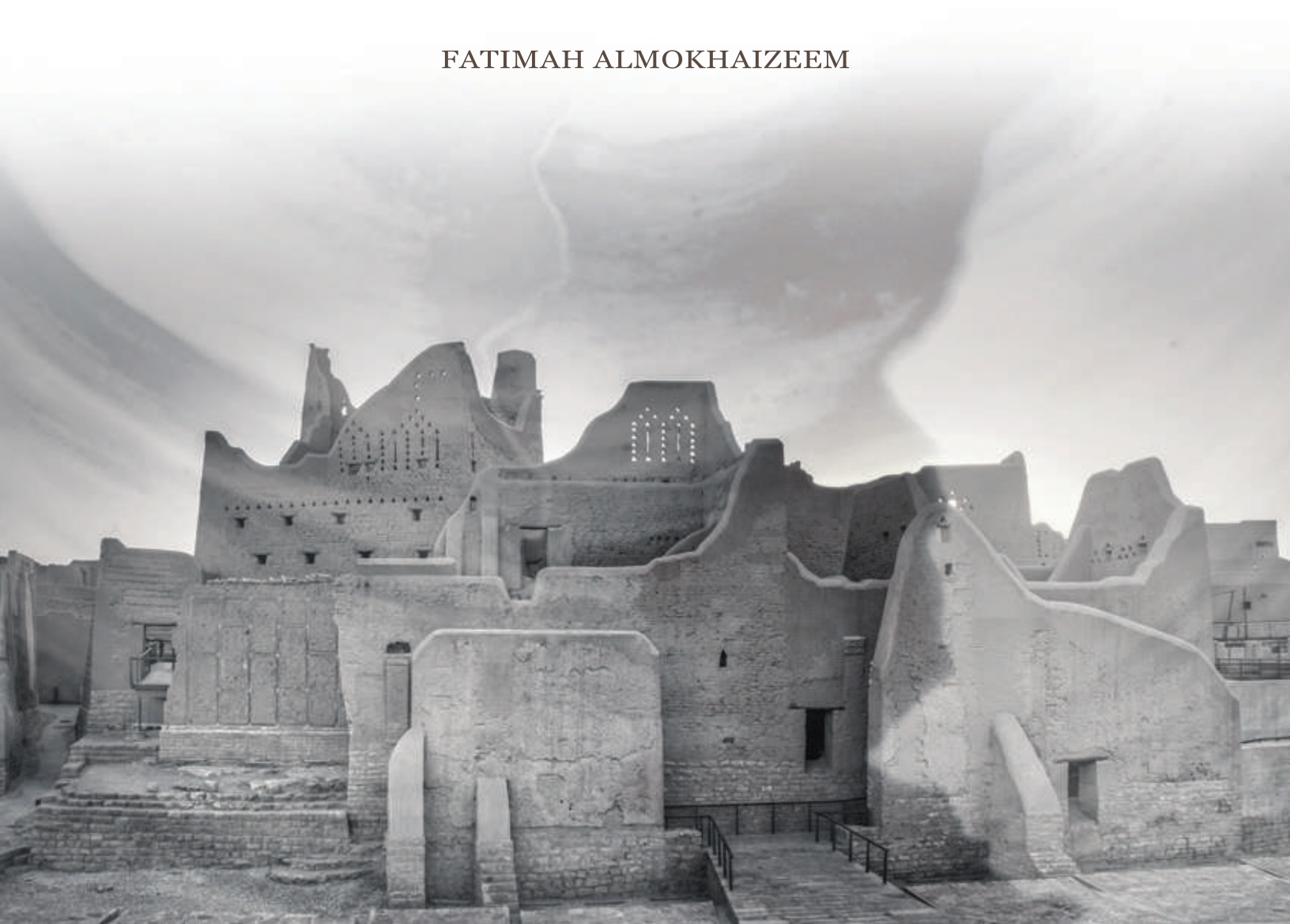


BREATHING NEW LIFE INTO OLD SITES
ARCHITECTURAL HERITAGE AND ADAPTIVE REUSE

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MASTER'S GRADUATE THESIS
INTERIOR ARCHITECTURE & DESIGN
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DREXEL UNIVERSITY
2021



“ ARCHITECTURE IS HISTORY
ARCHITECTURE IS MEMORY ”

CRAVEN, JACKIE

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TOPIC

Thesis Introduction

Literature Review





BREATHING NEW LIFE INTO OLD SITES
ARCHITECTURAL HERITAGE AND ADAPTIVE REUSE

LITERATURE REVIEW

Introduction

Architectural heritage represents a wealth of culture. In which many values, ideas, and traditions accumulate over the years. Due to the importance of heritage in national identity, many countries have endeavored to maintain a link with their origins (Al-Zahrani). Furthermore, as will be shown in this review, a nation's ability to cultivate a meaningful relationship with its heritage represents a viable economic path to the future. Preserving and caring for heritage is underscored by the belief that new stems from old, and that history is necessary for building the present and foreseeing the future. Interior designers and architects have always played a significant role in the creation of tangible culture, designing new buildings as well as preserving the material cultural assets of nations and their diverse communities. Through the restoration and protection of historic artifacts, structures, and vestiges, architects, designers, and preservationists reclaim places that allow people to perform the rituals, games, and festivals that constitute the intangible part of their cultural identity (Al-Zahrani). This literature review will explore concepts of architectural heritage and the repurposing of heritage sites that have deep and valuable cultural meaning. Focusing specifically on the built heritage of the Kingdom of Saudi Arabia's Najd region, this review will show how adaptive reuse can breathe new life into old sites, allowing people to live the stories of their ancestors by occupying the same spaces. Preserving architectural heritage sites involves numerous techniques and procedures—one is the adaptive reuse of old structures and their revival by reusing them again with different functions, taking into account the authenticity, identity, and spirit of these places.

Culture and Heritage

Culture is an umbrella term which encompasses the social behavior and norms found in human societies, as well as the knowledge, beliefs, arts, laws, customs, capabilities, and habits of the individuals in these groups (Tylor, 1871). Material culture is the physical expression of a society, including its norms and values (Jackson). Objects are the material things people encounter, interact with, and use. Objects are commonly spoken of as material culture.

The term 'material culture' emphasizes how apparently inanimate things within the environment act on people and are acted upon by people to carry out social functions, regulate social relations, and give symbolic meaning to human activity. Material culture is, chiefly, something portable and perceptible by touch and therefore has a physical, material existence that is one component of human cultural practice. (Woodward, 2007). A cultural norm codifies acceptable conduct in society; it serves as a guideline for behavior, dress, language, and demeanor in a situation, which serves as a template for expectations in a social group. The cultural setting of Saudi Arabia is greatly influenced by the Arab and Islamic culture. The society is in general deeply religious, conservative, traditional, and family-oriented. Many attitudes and traditions are centuries-old, derived from Arab civilization and Islamic heritage. However, its culture has also been affected by rapid change, as the country was transformed from an impoverished nomadic society into a rich commodity producer in just a few years in the 1970s. (Peter North, 2003). Cultural heritage is the legacy of physical artifacts and intangible attributes of a group or society that is inherited from past generations. Not all legacies of past generations are "heritage", rather heritage is a product of selection by society (Logan, 2007). Cultural heritage includes tangible culture such as buildings, monuments, landscapes, books, works of art, and artifacts, and intangible culture such as folklore, traditions, language, and knowledge. (Sullivan, 2016)

Heritage in the Kingdom of Saudi Arabia

The Kingdom of Saudi Arabia shows the oldest traces of human activity globally, based on many of its historical sites dating back thousands of years. (GIBBENS, n.d.) It is also the second country in the world in the Islamic religion, as it is the source of Islam and the birth of the Prophet Muhammad. May God bless him and grant him peace, which is one of the factors that affect the culture and tradition of the Kingdom (The Global Religious Landscape, 2012). Geographically, The Kingdom of Saudi Arabia is a country in Western Asia, constituting the vast majority of the Arabian Peninsula. With a land area of approximately 2,150,000 km² (830,000 sq mi). and is the only country with both a Red Sea coast and a

Persian Gulf coast, and most of its terrain consists of arid desert, lowland, and mountains. History survives if material culture is protected and disappears when these assets are ignored (Al-Zahrani). The cultural heritage sites of Saudi Arabia have become world renowned tourist destinations as they represent the grandeur and progress achieved by an ancient society. The Kingdom of Saudi Arabia's heritage sites have been particularly well preserved, especially in the country's urban centers where historical preservation programs and economic growth initiatives are fostered under the General Authority for Tourism Antiquity (Al-Zahrani). The Kingdom of Saudi Arabia has a varied richness in the field of urban heritage, throughout its various administrative areas, including historical buildings and palaces. Urban heritage can refer to a range of tangible and intangible cultural artefacts, in this review however, the term will be used to refer specifically to architectural vestiges and historic building sites., It is clear that the urban heritage in the Kingdom refers to actual, perceptible evidence of the “ancestors’ ’wisdom and their adaptation to their environment” (Supreme Tourism Authority, 1426 AH: 13). Globally, countries have become concerned with their urban heritage and use it to promote their history and cultural values, as well as benefit from these sites economically through tourism. The Tourism and Antiquities Authority recently revealed more than 2000 sites, and preliminary studies indicate that about 800 sites could be invested in to become tourist destinations. Other archaeological studies have revealed that there are over ten thousand sites of historical value across the Kingdom of Saudi Arabia, ranging from prehistory to the end of the Pre-Islamic era in the 630s (Ch. 7 The Rise and Spread of Islam, n.d.). The rehabilitation of these sites contributes to the economic survival of the local population. Adaptive reuse development practices allow the local community to remain connected to their material culture as they seek to highlight their heritage, customs, and traditions to visitors to the region (Al-Zahrani). The Saudi Heritage Preservation Society (SHPS) is a Saudi charitable society established in 2010 and concerned with the preservation of national heritage. It has been registered by UNESCO as an international nongovernmental organization in safeguarding heritage. In 2013, the society launched several projects emphasizing the need to protect and document archaeolog

ical sites and old buildings. Moreover, the projects involve initiatives towards supporting skills associated with traditional arts and crafts through launching awareness campaigns and seasonal competitions. Some of the efforts have also been made by the General Authority for Tourism and Antiquities, such as a complete database of urban heritage sites and establishing and adopting standards that guarantee the protection and preservation of Arab and Islamic heritage sites (Al-Zahrani).

At-Turaif District in ad-Dir'iyah

The architectural period and style of heritage sites in Saudi Arabia varies, revealing the diverse human capacity of each era. Touring the heritage sites raises the visitors' surprise and interest in the details of the lives of the residents of these areas, seen in the character of the buildings through distinctive and subtle details, and aesthetic aspects that express the culture of the period (Al-Zahrani). There are five UNESCO World Heritage Sites in Saudi Arabia inscribed from 2008 to 2018. The most important of these sites is Ad-Diriyah, which is located in the north-western outskirts of the Saudi capital, Riyadh. Diriyah was the original home of the Saudi royal family. The most famous neighborhood of this ancient city is Al-Turaif, the seat of the ruling family (التراث العمراني.. من الاندثار إلى الإبهار عالمياً, 2015). (Al-Zahrani)



This area was the first capital of the Saudi Dynasty, in the heart of the Arabian Peninsula, north-west of Riyadh. Originally founded in the 15th century, its political and religious role increased in the 18th and early 19th century, and the citadel at at-Turaif became the center of power of the House of Saud and the spread of the Salafiyya reform inside the Muslim religion. The area includes the remains of many palaces and an urban ensemble built on the edge of the ad-Dir'iyah oasis. (At-Turaif District in ad-Dir'iyah, Retrieved 2019-02-04). A unique feature of the At-Turaif District in ad-Dir'iyah are the remains of a traditional human settlement developed in a desert environment, dating from the 15th century. It consists almost entirely of mud-brick structures that are a unique example of the Najdi architectural and decorative style developed to cope with the extreme desert climate, and specific to the center of the Arabian Peninsula (world Heritage, n.d.) (whc.unesco, n.d.). The site includes: Salwa Palace, Saad bin Saud Palace, The Guest House and At-Turaif Bath House and Imam Mohammad bin Saud Mosque (Turaif Quarter, n.d.).



Adaptive Reuse and its Benefits

Adaptation, according to James Douglas, is any work to a building over and above maintenance to change its capacity, function, or performance (Douglas, October 2000). Adaptive reuse has existed from ancient times when people reused caves for residences, to today where there is, according to Lilian Wong, “a new wealth of rich and varied projects of reuse that extend the lives of structures.” (2016) Adaptive reuse can go by several other names common to the skilled crafts and trades: refurbishment, renovation, rehabilitation, and remodeling (Wong, 2016).

There are a number of benefits from adaptive reuse. First is environmental, due to the preservation of embodied energy. Embodied energy is the energy consumed by all of the processes associated with constructing a building, from the mining and processing natural resources to manufacturing, transport, and product delivery (Milne, Embodied energy, 2013). New buildings have higher embodied energies compared to the adaptive reuse of any old building. This means that adapting old buildings have many more environmental benefits than constructing a new building. “In 2001, new buildings accounted for about 40 percent of annual energy and raw materials consumption, 25 percent of the wood harvest, 16 percent of freshwater supplies, 44 percent of a landfill, 45 percent of carbon dioxide production, and up to half of the total greenhouse emissions from industrialized countries.” (Kerr, 2004). Kelly Lerner, local “green” architect and co-author of the upcoming book, *Natural Remodeling for the Not-so-Green House* says, “There is a lot of value embedded in building-energy, the history of the building, the materials-that value is irreplaceable.” (ANOTHER ONE BITES THE DUST: WHY HISTORIC RENOVATION IS MORE SUSTAINABLE, 2006). Even though building reuse requires a great deal of design and planning; the results are substantial savings as well as environmental and economic benefits. Building reuse revolves around repairing a building to accommodate a new use rather than tearing it down. Ideally, building reuse saves natural resources including raw materials, energy, and water resources required to build new. It also prevents pollution that might take place as a byproduct of extraction, manufacturing, and transportation of virgin materials and avoids creating solid waste that could end up in landfills. (Saleh, 2009).

Second are social benefits, as preserving and reusing old buildings and heritage sites helps to cultivate a strong sense of local identity in a community. Because old buildings have a cultural value in society, it is essential to preserve them and invest in this heritage to build a community's identity and authenticity. Sensitive adaptation schemes such as the reuse of disused industrial buildings can bring back life to run-down urban areas (Douglas, October 2000). The successful adaptation (whether refurbishment or adaptive reuse) of an obsolete property can offer hope to a community devastated by the loss of traditional industries. (Douglas, October 2000).

Architectural Interiors and Strategies for Adaptive Reuse in Relation to Heritage Sites

Authenticity, identity, and spirit of heritage sites are taken into account in adaptive reuse, by preserving the old materials, buildings and historical monuments that built and construct the ancient sites we have and take benefits of the existing design elements.

When a building is reused, the most important and meaningful factor in the design is, of course, the original building and it is the establishment of a relationship between the old and the new that is the most influential device in the design. The new could not exist without the original. The method by which the relationship is established is the key to the strategic analysis of building reuse. Of course, those other factors intrinsic in the design of new building play an important part in the redesign of a building, but they are really overshadowed by the association of the new program with the original building, and this approach or the plan for the building is influenced or based upon the factors discovered within the analysis of the place (Stone, 2005).

The three types of strategy are classified according to the intimacy of the relationship between the old and the new, that is the sheer extent of the integration between the host building and the new elements (Stone, 2005). If the existing building is so transformed that it can no longer viably exist independently and the nature of the remodeling is such that the old and new are completely intertwined, then the category is intervention. If a new autonomous element, the dimensions of which are completely dictated by those of the existing, that is, it is built to fit, is placed within the confines of the existing, then the category is insertion. The final classification, that of installation, includes examples in which the old and the new exist independently. The new elements are placed within the boundaries of the building. The design or the grouping of these elements may be influenced by the existing, but the fit is not exact, and should the elements be removed then the building would revert to its original state. (Stone, 2005)

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DESIGN AGENDA

Design Agenda Statement

Precedents

Design Probe 1: Scale

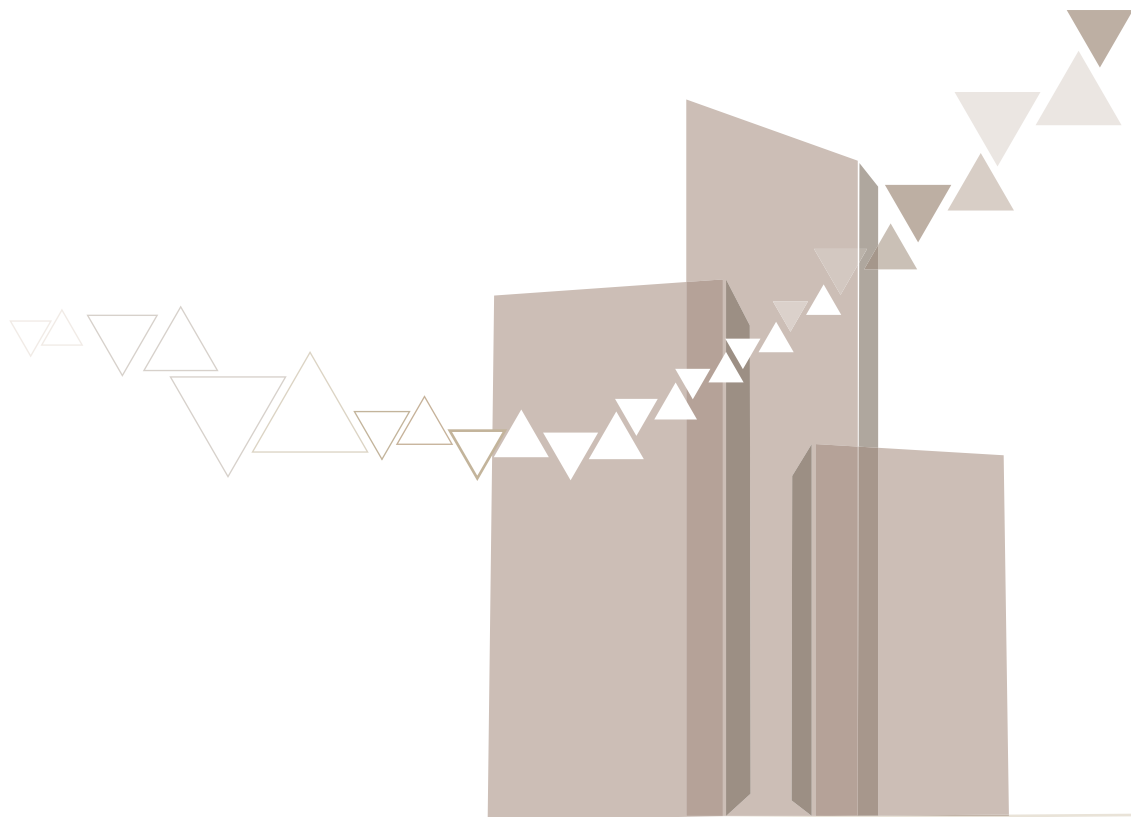
Design Probe 2: Materials

Design Probe 3: Experience



DESIGN AGENDA STATEMENT

- TO DESIGN A SPACE WHERE PEOPLE CAN INTERACT WITH OLD ARCHITECTURE AND EXPERIENCE OLD EVENTS FROM THE PAST TRANSFORMED INTO A HIGH-TECH VISUAL EXHIBITION.
- TO COMBINE TANGIBLE AND INTANGIBLE CULTURAL ELEMENTS IN ONE SPACE.
- TO USE LOCAL ARCHITECTURAL BUILDING METHODS AND STRATEGIES THAT WORK WITH THE LOCAL CLIMATE AND TRADITION.
- PROVIDE ENGAGING EXPERIENTIAL PLATFORM.



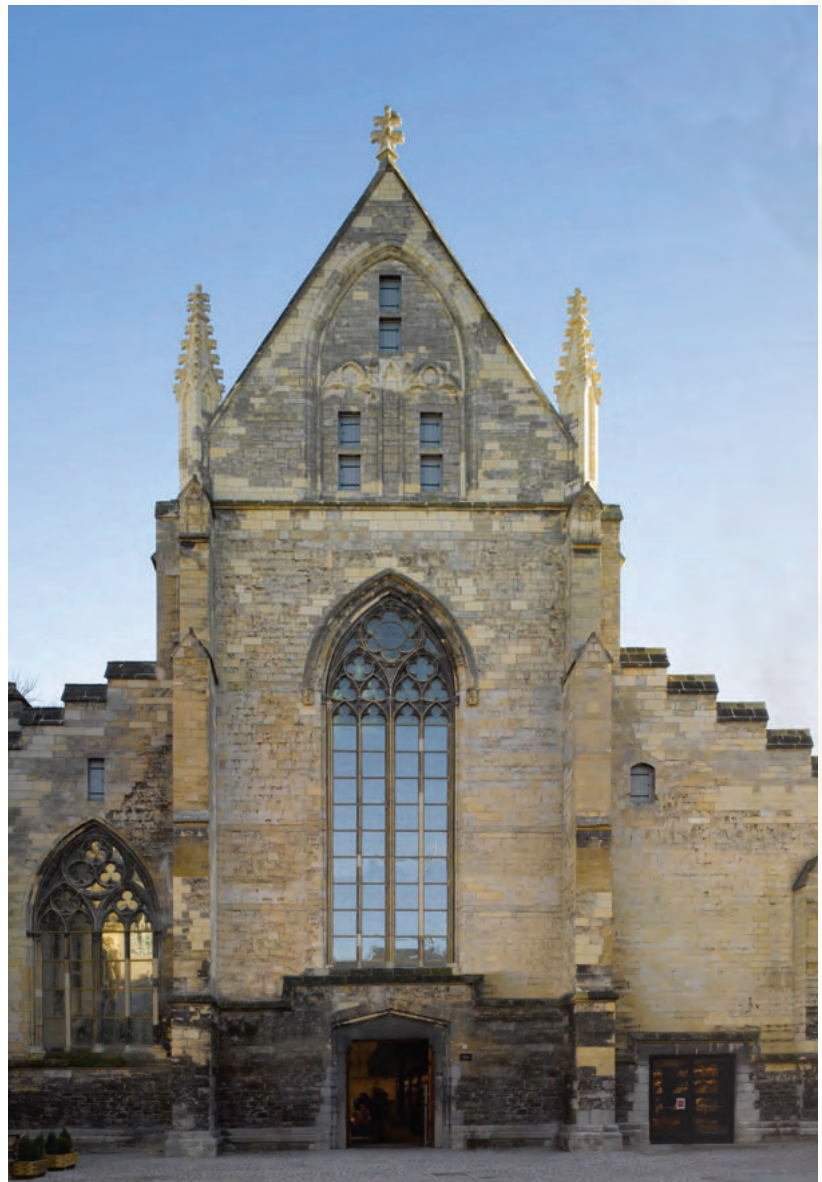


PRECEDENT 1

DOMINICAN CHURCH, MAASTRICHT
OLD CHURCH CONVERTED INTO A MODERN BOOKSTORE

Dating back to the 13th century, the structure was a Dominican church until Maastricht was invaded by Napoleon in 1794 and the group was forced out of the country. Since that point it has been briefly used as a parish, then a warehouse, then an archive, then a giant parking lot for bicycles (not such a terrible idea) and finally made over into a bookstore.

Led by architecture firm Merckx + Girod, the new installations are highlighted by a towering, three-storey black steel book stack stretching up to the stone vaults. The highest shelves are reachable by lift or by a set of stairs within the sleek, well-made stack. The views provided from the top shelf along the nave of the church are nothing short of uplifting.



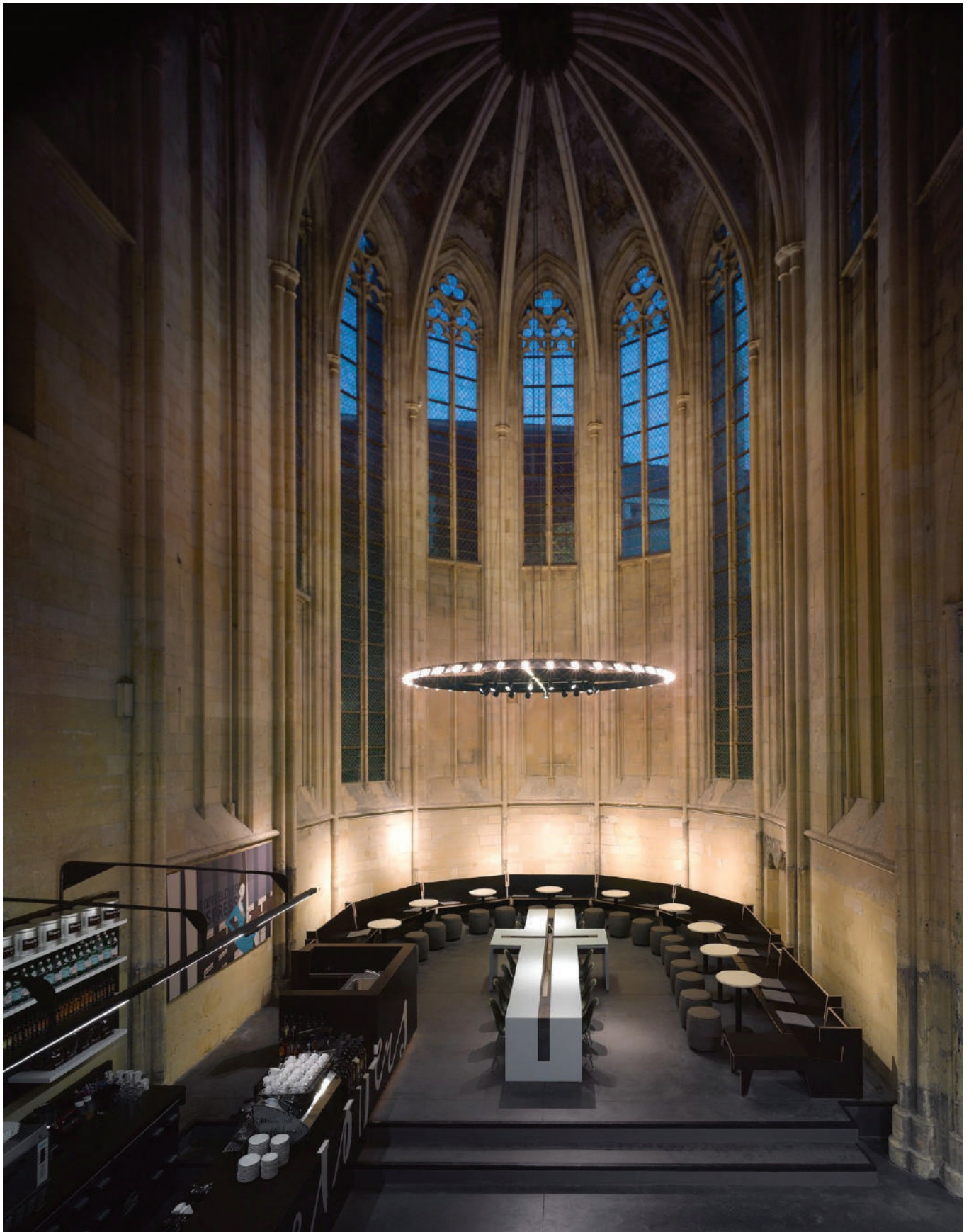
Location:	Maastricht, Netherlands
Area:	1,200 sqm
Date:	Built in 13th century , September 29, 1294
Building Age:	800 Years
Restorations Dates:	1912-17, 2005-06
Style period:	Maas Gothic
Material:	Namur stone
Before Function:	Church
Architects:	Merckx+Girod architects



- The imposing bookcase created by Keijzers Interior Projects is positioned on the right side of the building, between the central and lateral naves, and encompasses the stone columns.
- In order to preserve the character of the church while achieving the desired commercial square footage, the architects erected a two-storey structure in black steel on one side, where the books are kept.



- The two upper levels therefore compensate for the lack of surface area, enabling the transversal use of space.
- The left nave features low, horizontal tables and vertical book shelves along the walls to create thematic islands separated by the steady rhythm of the columns.



- The lighting, which is an all but integral part of the store's design, manifests itself in the chorus by way of a traditional chandelier above the crucifix-shaped table located in the café area. Here, with the left side housing the bar area, a series of tables, poufs and armchairs mimic the curved line of the chorus to a raised platform.



PRECEDENT 2

Franklin Court

FRANKLIN COURT

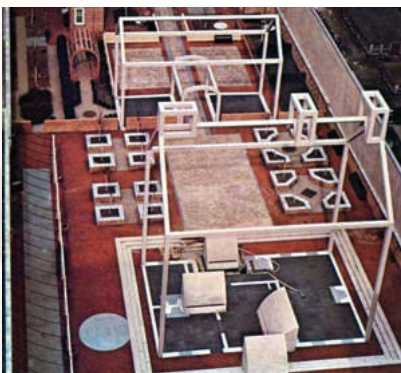
ESTABLISHED: 1976

LOCATION: INDEPENDENCE NATIONAL HISTORICAL PARK, PHILADELPHIA, PENNSYLVANIA

TYPE: BIOGRAPHICAL MUSEUM

FRANKLIN COURT IS COMPLEX OF MUSEUMS, STRUCTURES, AND HISTORIC SITES WITHIN INDEPENDENCE NATIONAL HISTORICAL PARK IN PHILADELPHIA, PENNSYLVANIA.

IT IS LOCATED AT THE SITE WHICH AMERICAN PATRIOT BENJAMIN FRANKLIN HAD HIS PHILADELPHIA RESIDENCE FROM 1763 TO HIS DEATH IN 1790.

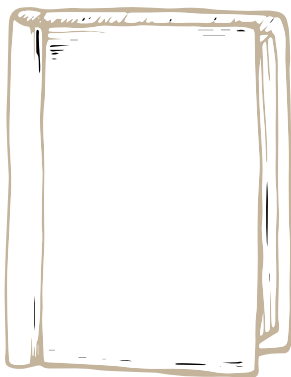


DESIGN PROBE 1

SCALE



KINGDOM OF SAUDI ARABIA
HERITAGE SITES MAP



DESIGN PROBE 2

MATERIALITY



CARVED IN AND OUT LOCAL PATTERNS

DESIGN PROBE 3

EXPERIENCE





PROGRAM

Program Background Information and Contemporary Trends

Case Study Summary

Master List of Spaces

Bubble Diagram of functions and adjacencies



PROGRAM BACKGROUND INFORMATION

- THE INTENT IS TO DESIGN A SPACE WHERE PEOPLE FROM YOUNGER GENERATIONS, NON-SAUDI VISITORS, CHILDREN, AND ADULTS CAN VISIT THE SPACE AND ENJOY THE VISUAL EXPERIENCE, TRADITIONAL AND LOCAL ARCHITECTURE, CULTURAL SHORT FILMS ,OLD COLLECTIBLES EXHIBITED AND OLD EVENTS REINTERPRETED AGAIN.
- I CHOSE SALWA PALACE SITE BECAUSE IT IS ONE OF THE IMPORTANT LANDMARKS IN THE KINGDOM OF SAUDI ARABIA, CAPTURED THE HISTORY AND CULTURE THROUGH ALL THE DETAILS AND REMNANTS IT HAS. AND IT IS THE BIGGEST REMAINING PALACE IN OLD DIRIYYAH TODAY.



CASE STUDY SUMMARY

CASE STUDY 1

KING ABDULAZIZ CENTRE FOR WORLD CULTURE ITHRA

ARCHITECTS: SNØHETTA

AREA: 100000 M²

YEAR: 2017

FOCUS: CULTURE, KNOWLEDGE, PUBLIC ENGAGEMENT, CROSS-CULTURAL ACTIVITIES.

LOCATION: DHAHRAN, KINGDOM OF SAUDI ARABIA



IT WAS BUILT BY SAUDI ARAMCO, AND IS CURRENTLY THE COMPANY'S MAIN CORPORATE SOCIAL RESPONSIBILITY INITIATIVE WITH A FOCUS ON CULTURE, LEARNING AND CROSS-CULTURAL ACTIVITIES.

THE CENTER IS LOCATED WHERE THE FIRST COMMERCIAL SAUDI OILFIELD WAS FOUND IN MARCH 1938.

THE CENTER INCORPORATES A MUSEUM, CHILDREN MUSEUM, LIBRARY, CINEMA, THEATER, AND EXHIBITION HALLS.

THE CENTER HAS BEEN LISTED IN TIME MAGAZINE AS ONE OF THE WORLD'S TOP 100 PLACES TO VISIT AND ATTRACTED ONE MILLION VISITORS IN 2019.

CASE STUDY SUMMARY

CASE STUDY 1

KING ABDULAZIZ CENTRE FOR WORLD CULTURE ITHRA

GREAT HALL



MUSEUM



CINEMA



WORKSHOPS



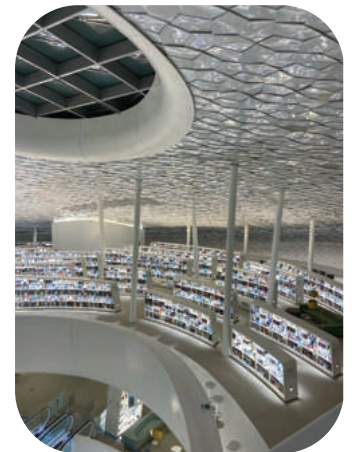
THEATER



FACILITIES

THE CULTURAL CENTER PROVIDE A WIDE RANGE OF ACTIVITIES SERVING THE LOCAL POPULATION AND BECOMING A CULTURAL LANDMARK ON A REGIONAL, NATIONAL, AND GLOBAL HORIZON.

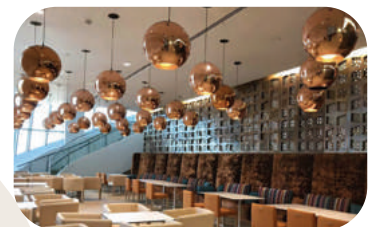
LIBRARY



SHORT-TERM EXHIBITIONS



FOOD EXPERIENCE








CASE STUDY SUMMARY

CASE STUDY 1

KING ABDULAZIZ CENTRE FOR WORLD CULTURE ITHRA



-  CEINMA
-  CHILDREN OASIS
-  THEATER
-  GREAT HALL
-  CULTURAL OASIS

CASE STUDY SUMMARY

CASE STUDY 2

PRESIDENT'S HOUSE, PHILADELPHIA

Third Presidential Mansion, occupied by George Washington

An outdoor exhibit, and can be entered from either Market Street or 6th Street.

Construction started: 1767

Address: 524–30 Market Street

Architectural style: Georgian architecture

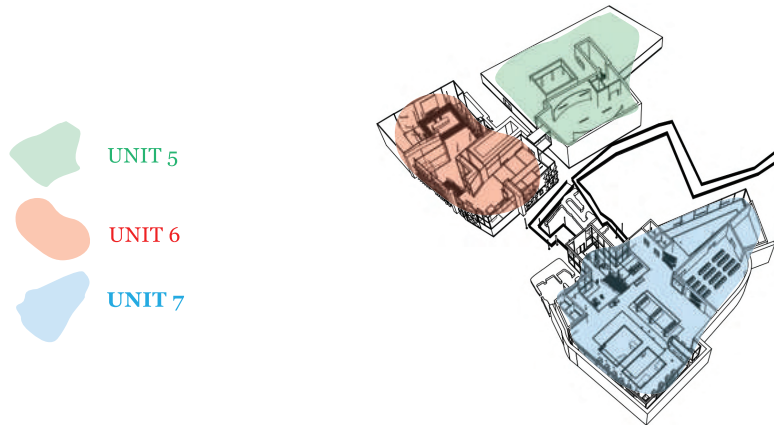
Demolished: 1832 / 1951



An open-air pavilion that shows the outline of the original buildings and allows visitors to view the remaining foundations. Some artifacts are displayed within the pavilion. Signage and video exhibits portray the history of the structure.

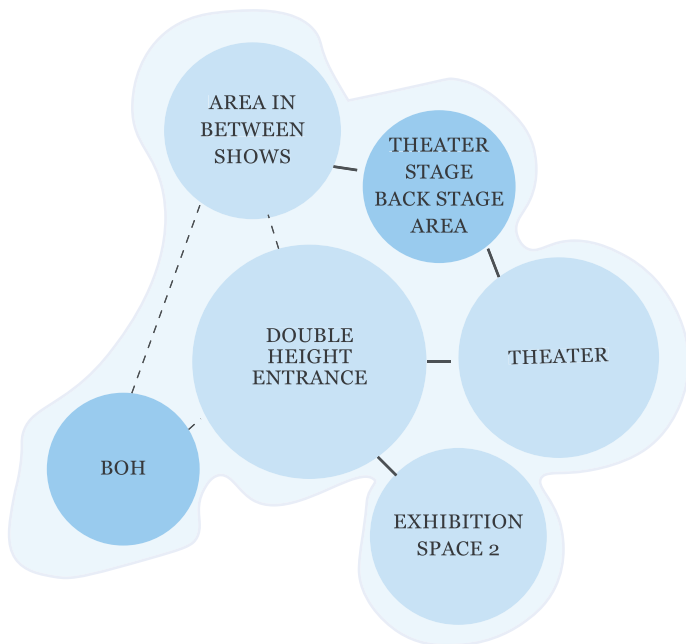
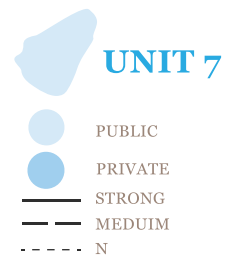
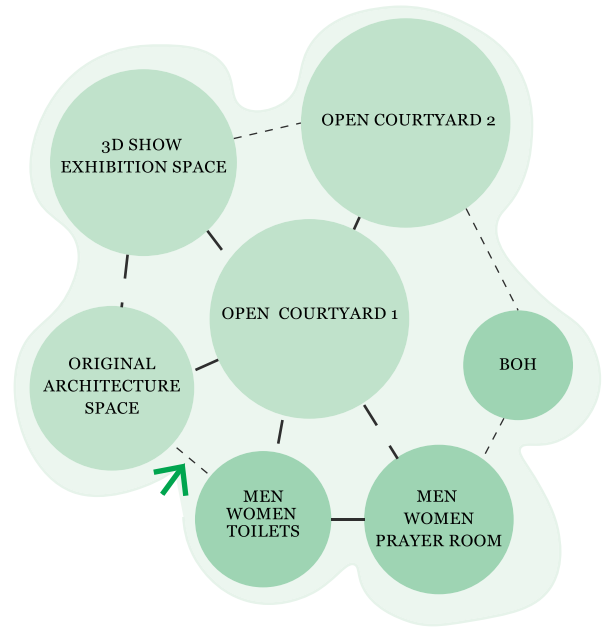
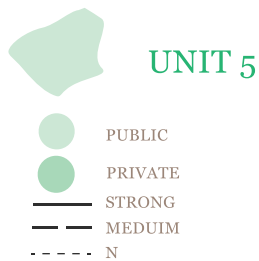
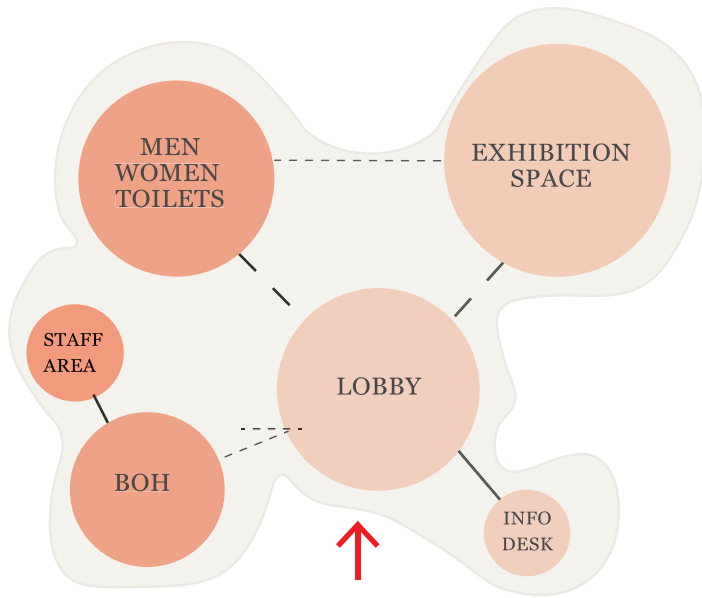
MASTER LIST OF SPACES

THE SPACE IS DIVIDED INTO 3 MAIN ZONES BASED ON THE EXHIBITION JOURNEY AND CIRCULATION.



ZONE	SPACE NAME	SQ FOOTAGE	SQ METERS
Unit 6	Lobby	1934	1797
	Information Desk	300	278
	Men Toilets	1657	154
	Women Toilets	1657	154
	Exhibition Space - Level 2	17,642	1639
	Head Office	906	842
	Staff office 1	906	842
	Staff office 2	906	842
	Staff Workshop Room	906	842
	Conference room 1	126	117
	Conference room 2	126	117
	Staff Lounge	542	504
	Staff Toilets	163	152
	Employee Locker Area	656	61
	Electrical Closet	200	18
	Cleaning Closet	100	10
	Unit 6 Total		28727
Unit 5	3D Show Exhibition Space	2030	1886
	Original Architecture Tour Space	33120	3077
	Open Courtyard 1	5866	545
	Open Courtyard 2	1950	1812
	Men Toilets	254	236
	Women Toilets	254	236
	Men Prayer Room	139	130
	Women Prayer Room	139	130
	IT Room	200	18.5
	Electrical Closet	200	18.5
	Mechanical Room HVAC	300	27.8
	Mechanical Room WATER	200	18.5
	Fire Supression Room	250	23.2
	Cleaning Closet	100	9.2
Unit 5 Total		45002	8167.7
Unit 7	Double Height Entrance	2095	1947
	Exhibition Space 2	4599	4273
	Theater	1536	1427
	Area in between shows	656	610
	Theater Stage Including Back Stage A	426	396
	Service Area	300	24.80
	Electrical Closet	200	18.50
	Cleaning Closet	100	9.20
Unit 7 Total		9912	8705.5
Approx Existing Square Footage			6,458,346.00
Total Square Footage			28,727 SQF

BUBBLE DIAGRAM OF FUNCTIONS AND ADJACENCIES





SITE

Site Context and Background Information

Site Documentation

Site Analysis Diagrams



SITE CONTEXT AND BACKGROUND INFORMATION

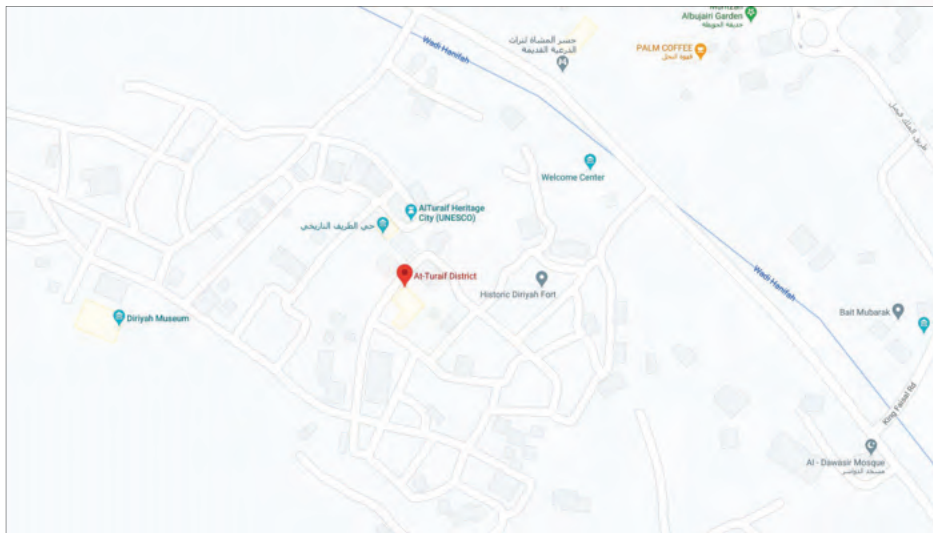
SITE

SALWA PALACE
AL-TURAIIF DISTRICT IN AL-DIR'YAH NORTH-WEST OF RIYADH.
KINGDOM OF SAUDI ARABIA

ADDRESS:
WADI HANIFAH, AL TRAIIF, AD DIRIYAH 13711

FOUNDED:
15TH CENTURY

SIZE:
SALWA PALACE:
64.583.46 SQF / 6000 SQM



SITE ANALYSIS

AD DIRIYAH WAS FOUNDED IN THE 15TH CENTURY.

ESTABLISHED ALONG ON THE EDGE OF WADI HANIFAH (VALLEY), OVER A DISTANCE OF 8 KM



Diriyah Museum
الدرعية التاريخية
Temporarily closed



- AT-TURAIIF IS A HISTORIC DISTRICT LOCATED IN AL-DIR'IAH NORTH-WEST OF RIYADH

- ONE OF THE IMPORTANT POLITICAL AND HISTORICAL SITES IN SAUDI ARABIA

- WAS THE ORIGINAL HOME OF THE SAUDI ROYAL FAMILY AND THE COUNTRY'S FIRST CAPITAL, FROM 1744 TO 1818.

- THE PALACE WAS THE SEAT OF THE PRINCES AND IMAMS OF THE AL SAUD FAMILY THROUGHOUT THE RULE OF THE FIRST SAUDI STATE

- THE PALACE IS THE LARGEST PALACE IN THE CITY OF DIRIYAH IN THE NAJD REGION

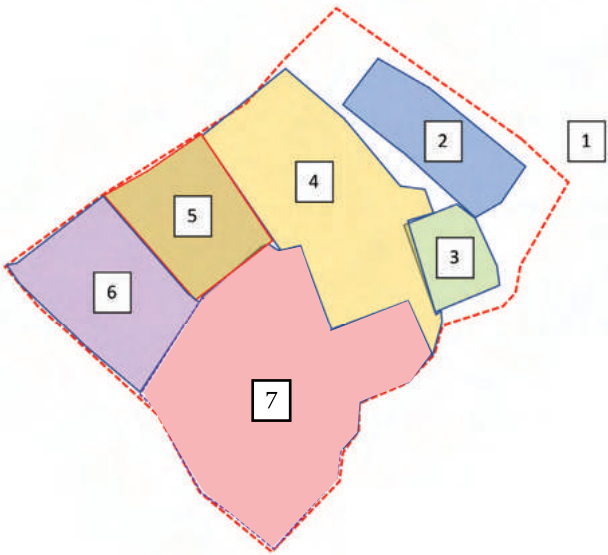
- IT IS MADE UP OF SEVEN ARCHITECTURAL UNITS THAT WERE BUILT IN SUCCESSIVE STAGES THAT BEGAN SINCE THE REIGN OF PRINCE MUHAMMAD BIN SAUD BIN MUQRIN

SALWA PALACE

SITE ANALYSS

THE MAIN PALACE BUILDINGS WERE 3-4 STORY HIGH (ABOUT 20 METET, 65.6168 FEET)

OTHER BUILDINGS WERE 2-3 STORY WITH AN OPEN COURTYARD INSIDE



- 1 - OUTER DEFENSIVE WALL
- 2- STORAGE / SERVICE ROOMS – PUBLIC SPACE
- 3- MAJLIS / PUBLIC SPACE
- 4- KING PALACE / PRIVATE SPACE
- 5- KING FAMILY PALACE / PRIVATE SPACE
- 6- KING FAMILY PALACE /PRIVATE SPACE
- 7- PALACE MOSQUE AND SCHOOL / SEMI-PRIVATE SPACE

EXISTING PALACE ORIGINAL COMPONENTS
CONTAINS 7 UNITS

SALWA PALACE EXISTING PLAN





DESIGN DEVELOPMENT

Detailed Work

Adaptive Reuse Strategies

Sustainability And Energy Efficiency

Historical Design Influences

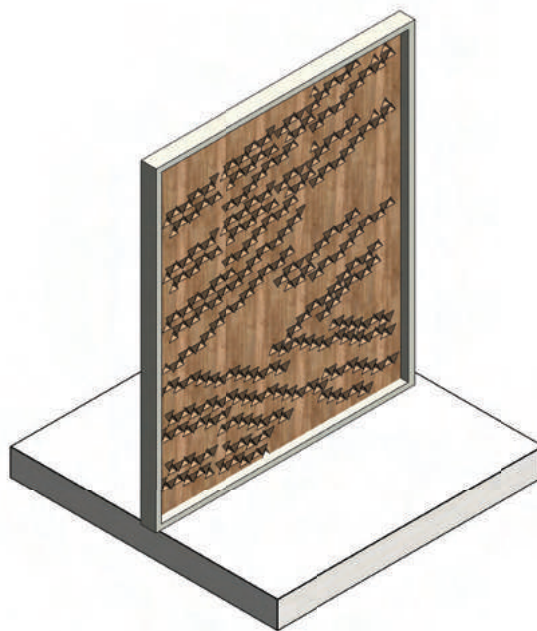
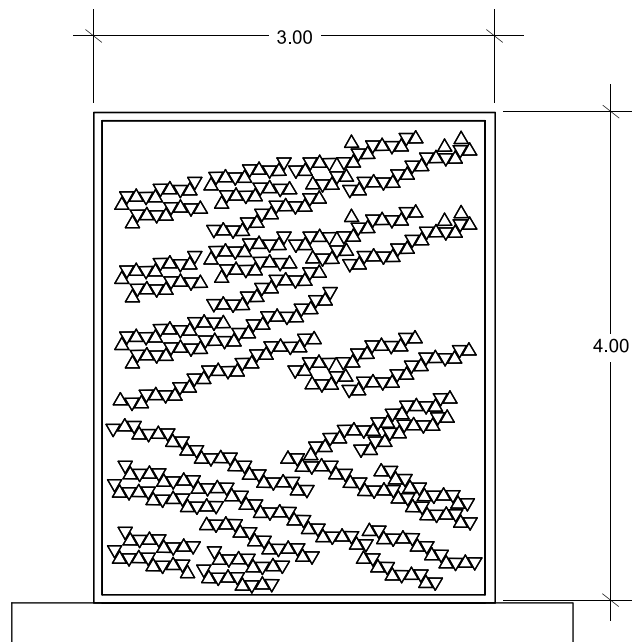
Vernacular Architecture



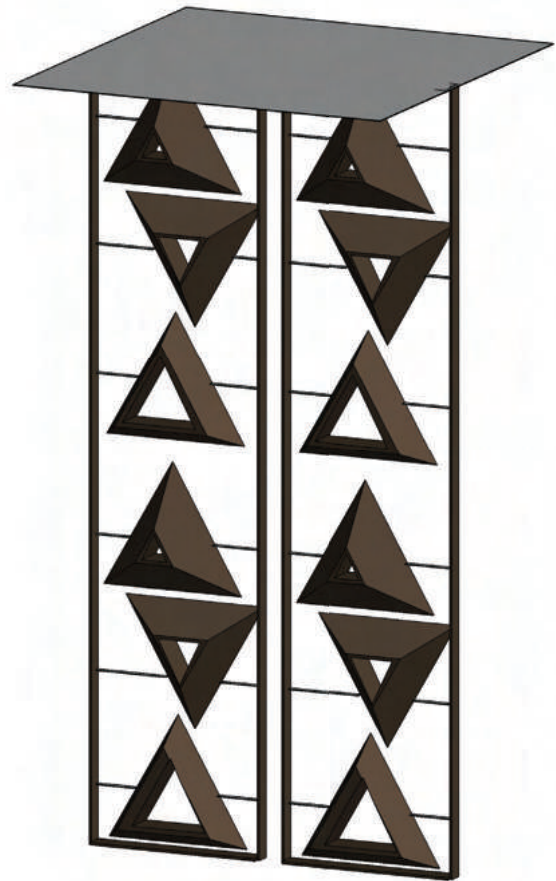
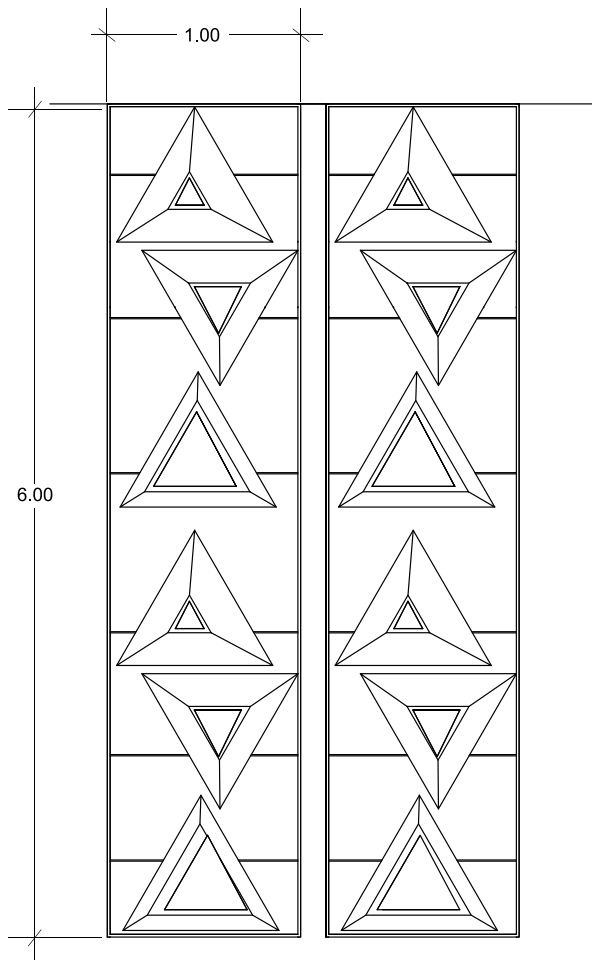
SALWA PALACE

DETAILED WORK

SCREEN WALL



SALWA PALACE
DETAILED WORK
SHADING ELEMENT



SALWA PALACE

ADAPTIVE REUSE STRATEGIES

INTERVENTION STRATEGY

“IN ADAPTIVE REUSE, DESIGN INTERVENTIONS AS RESPONSES TO THE UNIQUE DNA OF STRUCTURES CAN BEST BE UNDERSTOOD AS ACTIONS. THESE ACTIONS ARE OPERATIONS THAT CREATE A NEW USER EXPERIENCE THROUGH VERY DIFFERENT TYPES OF INTERFACE WITH THE HOST. ”

WONG, L. (2016). ADAPTIVE REUSE: EXTENDING THE LIVES OF BUILDINGS.

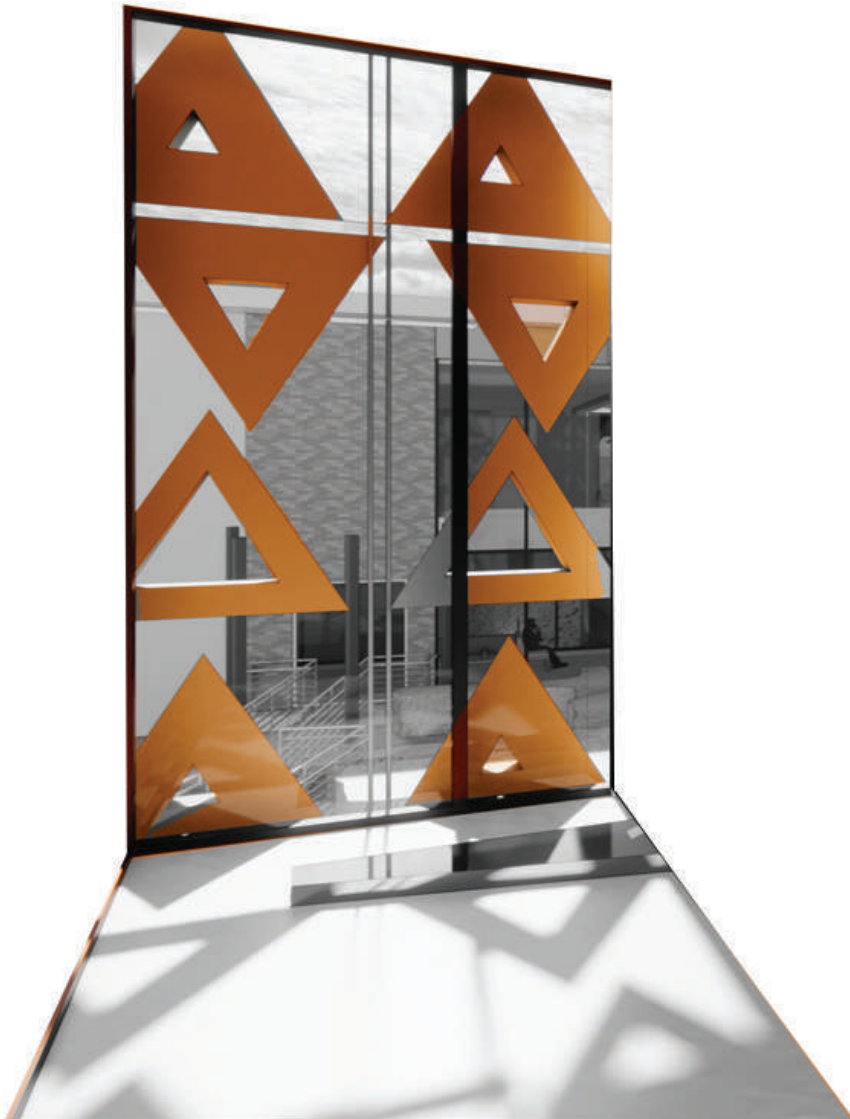
- REUSING OLD PALACE'S REMNANT FOR AN EXHIBITION SPACE.
- EMPLOYING LOCAL ARCHITECTURAL BUILDING METHODS VIA A DIFFERENT APPROACH.
- INCORPORATING PORTIONS OF THE PALACE REMNANT MUD WALLS AS PART OF THE EXHIBITION.



SALWA PALACE

SUSTAINABILITY AND ENERGY EFFICIENCY

- USING DYNAMIC SHADING ELEMENTS ON THE EXTERIOR FACADE TO CONTROL THE AMOUNT OF LIGHT ENTERING THE SPACE AND TO AVOID THE HOT SUN HEAT.
- USING A TINTED DOUBLE GLAZING SYSTEM TO REDUCE THE AMOUNT OF SUNLIGHT THAT COMES THROUGH.



SALWA PALACE

HISTORICAL DESIGN INFLUENCES

- INTEGRATING TRADITIONAL NATIVE PATTERNS TO THE INTERIOR SPACES' DESIGN CHOICES AND MATERIALS.
- UTILIZING LOCAL ARCHITECTURAL GEOMETRIES AND TECHNIQUES FOR AN ABSTRACT DESIGN COMPONENTS.



SALWA PALACE

VERNACULAR ARCHITECTURE

DESIGN CHARACTERISTICS AND ELEMENTS



THE MATERIAL USED FOR CONSTRUCTION WERE ALL LOCAL. THE MAIN MATERIAL TO BUILT WAS SUN-DRIED MUD BRICKS, MUD AND AL-ATHAL TREE (TAMARISK).



THE EXTERIOR WALLS ARE THICK WHICH ARE ABOUT 80–100 CM, THUS, IT CAN EFFECTIVELY ISOLATE HIGH TEMPERATE AND CREATE COMFORT LEVEL TO THE RESIDENTS.

SALWA PALACE

VERNACULAR ARCHITECTURE

DESIGN CHARACTERISTICS AND ELEMENTS



THE TRIANGLES ARE TINY (34 CM) AND AT A HIGH HEIGHT. THEY ACHIEVED A SOCIAL GOAL, WHICH IS TO PRESERVE PRIVACY. AND CONTRIBUTED TO ENTERING THE APPROPRIATE LIGHTING AND REQUIRED VENTILATION.



THE TYPICAL HOUSES IN THE NAJD REGION ARE USUALLY TWO STORIES HIGH AND BUILT AROUND AN OPEN CENTRAL COURTYARD.

THE SHAPE OF THE COURTYARD IS USUALLY GEOMETRIC LIKE A RECTANGLE OR A SQUARE AND IT WORKS AS LUNGS OF THE HOUSES TO REGULATE THE MICROCLIMATE AND PROVIDE A PRIVATE SPACE FOR THE FAMILY TO MAINTAIN THE PRIVATE LIFE.

THE MOST IMPORTANT CHARACTERISTIC OF THE TRIANGLE IS ITS ABILITY TO DISTRIBUTE THE LOADS ON IT, SUCH AS THE ARCH OR THE DOME, AND THUS THERE IS NO NEED TO BUILD THRESHOLDS OVER THIS TYPE OF OPENINGS.

FINAL DESIGN

Circulation Plan

Floor Plans

Rendered Perspectives

Sections

Detailed Drawings



SALWA PALACE

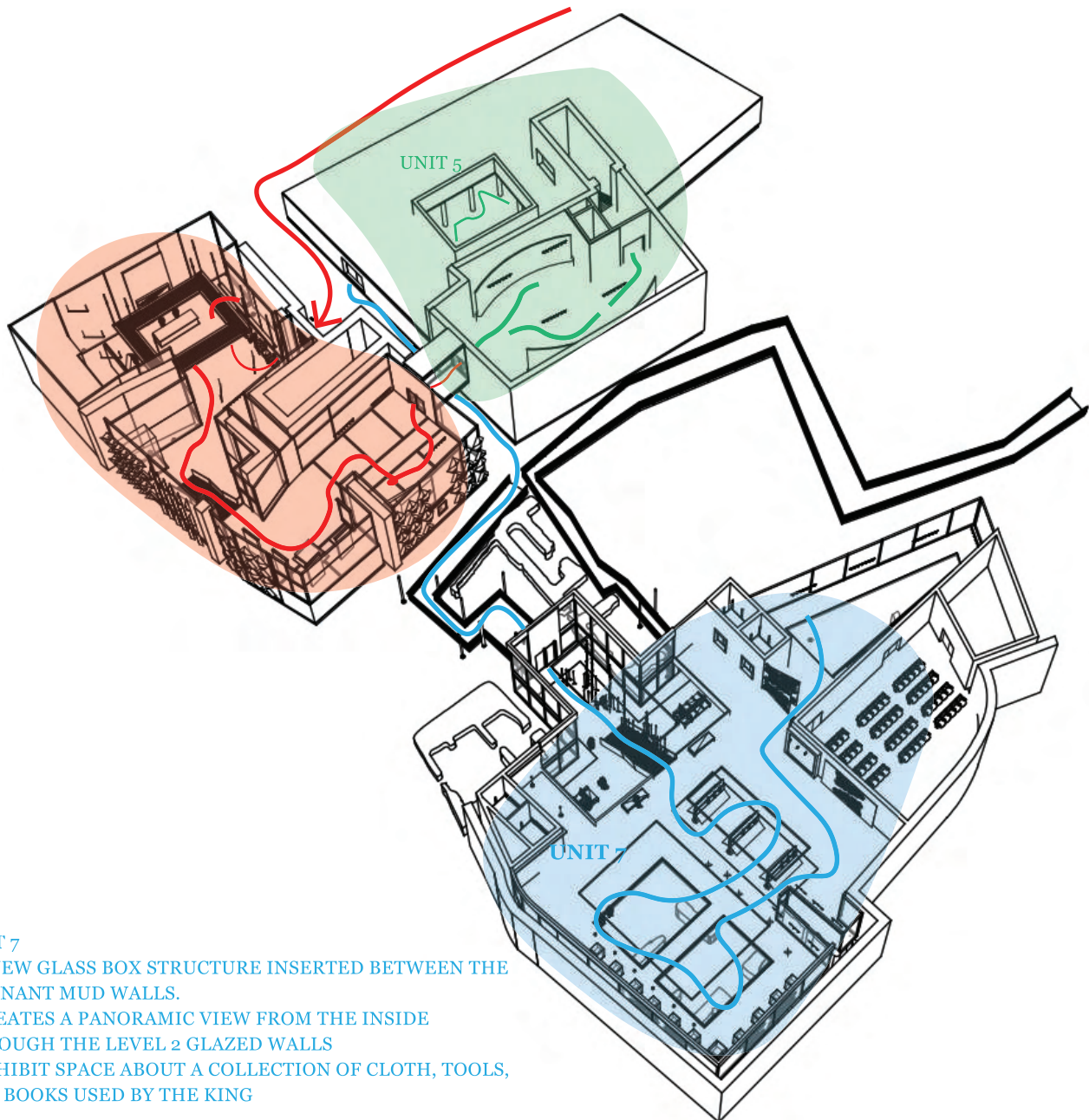
DRAWINGS

UNIT 6

- BEGINNING OF THE JOURNEY.
- LEVEL 1 LOBBY
- LEVEL 2 EXHIBIT SPACE ABOUT THE BEGGING AND ESTABLISHMENT OF THE FIRST SAUDI STATE

UNIT 5

- MOVING TO UNIT 5 BY THE BRIDGE LOCATED ON LEVEL 2 OF UNIT 6
- VISITORS WILL WATCH A VIDEO ABOUT THE AREA.
- THEN MOVING TO UNIT 5 LEVEL 1 IS AN EXAMPLE OF THE ORIGINAL LOCAL ARCHITECTURE USED BEFORE IN THE NAJD REGION.



UNIT 7

- A NEW GLASS BOX STRUCTURE INSERTED BETWEEN THE REMNANT MUD WALLS.
- CREATES A PANORAMIC VIEW FROM THE INSIDE THROUGH THE LEVEL 2 GLAZED WALLS
- EXHIBIT SPACE ABOUT A COLLECTION OF CLOTH, TOOLS, AND BOOKS USED BY THE KING

SALWA PALACE DRAWINGS

SALWA PALACE
ORIGINAL REMNANT PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN



SALWA PALACE
DRAWINGS



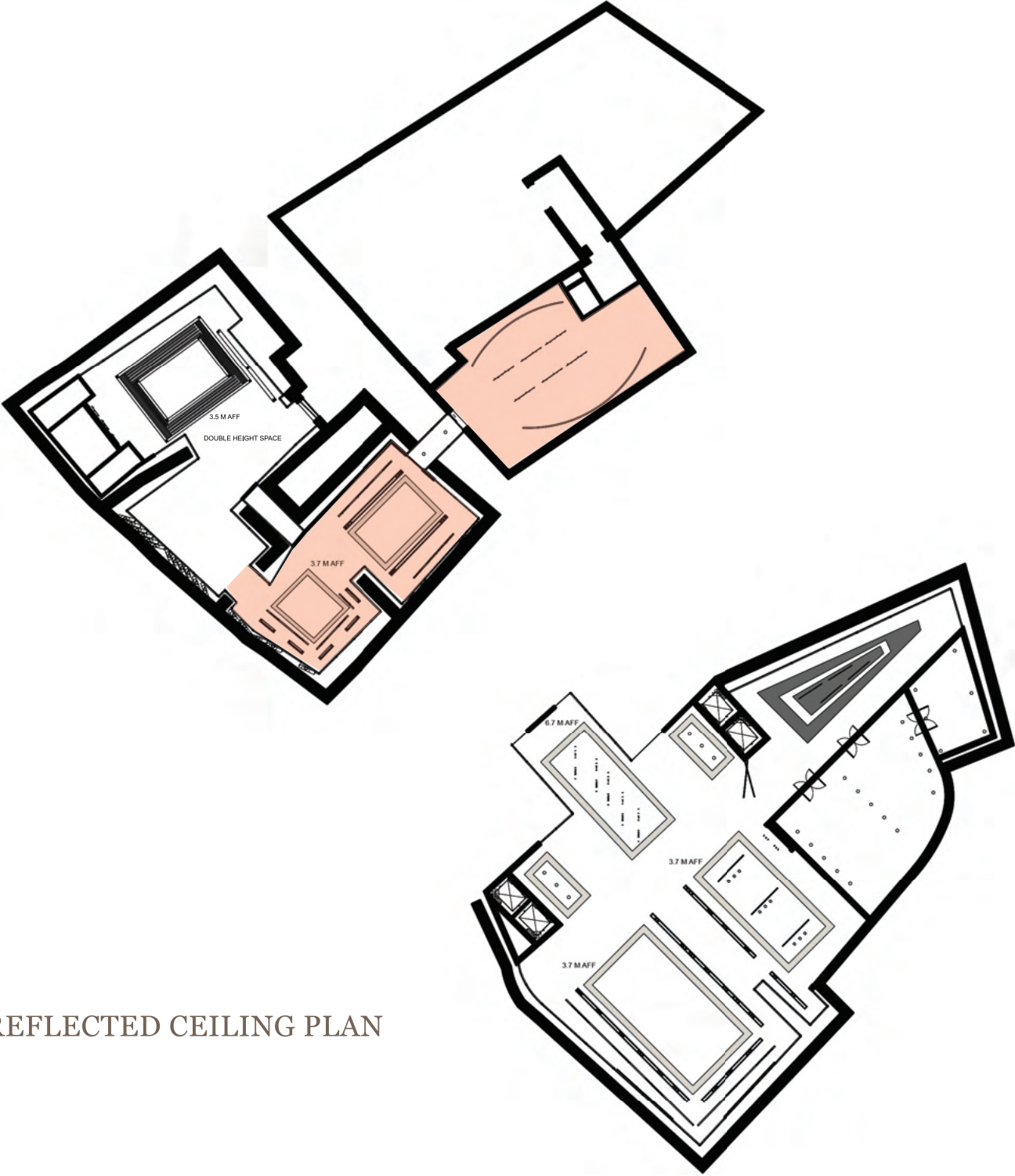
FIRST FLOOR PLAN

SALWA PALACE DRAWINGS



SECOND FLOOR PLAN

SALWA PALACE
DRAWINGS



REFLECTED CEILING PLAN

SALWA PALACE

RENDERED PERSPECTIVES

LOBBY INTERIOR PERSPECTIVE



RODA
THEA
Round porcelain stoneware garden side table



Real Piel
NUR
2 seater leather sofa



ACTIU
NOOM 20
Fabric armchair with armrests



SALWA PALACE
RENDERED PERSPECTIVES
UNIT 6 EXHIBIT INTERIOR PERSPECTIVE



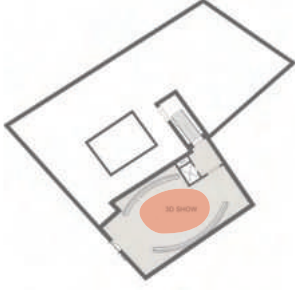
SALWA PALACE
RENDERED PERSPECTIVES
UNIT 6 EXHIBIT INTERIOR PERSPECTIVE



SALWA PALACE

RENDERED PERSPECTIVES

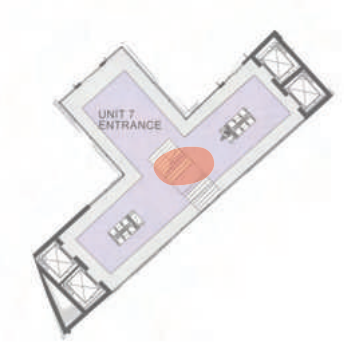
UNIT 5 3D SHOW ROOM PERSPECTIVE



SALWA PALACE

RENDERED PERSPECTIVES

UNIT 7 ENTRANCE INTERIOR PERSPECTIVE



SALWA PALACE

RENDERED PERSPECTIVES

UNIT 7 EEXHIBIT INTERIOR PERSPECTIVE



SALWA PALACE
RENDERED PERSPECTIVES
UNIT 7 EEXHIBIT INTERIOR PERSPECTIVE

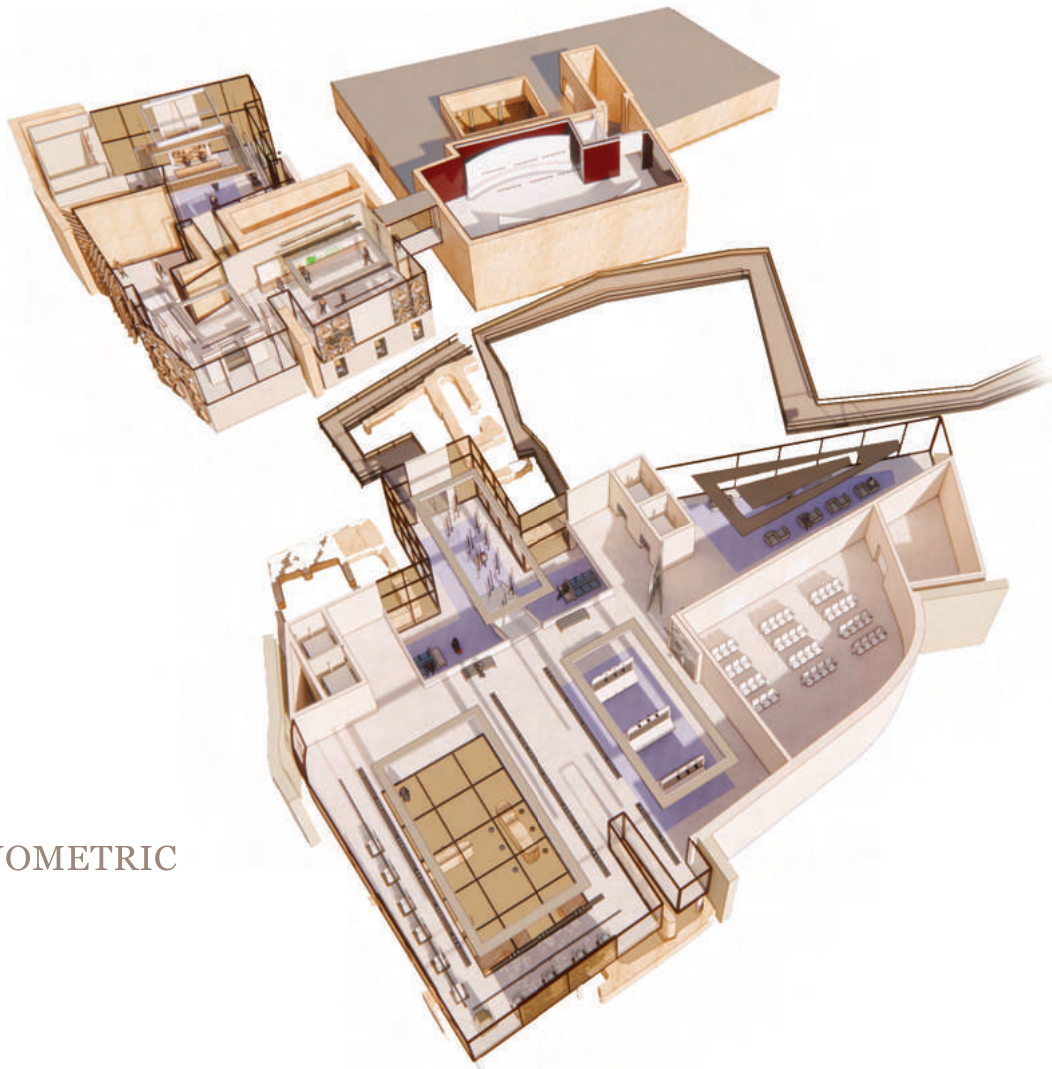


SALWA PALACE

RENDERED PERSPECTIVES

UNIT 6 BRIDGE TO UNIT 5 INTERIOR PERSPECTIVE





AXONOMETRIC



MATERIAL SELECTION

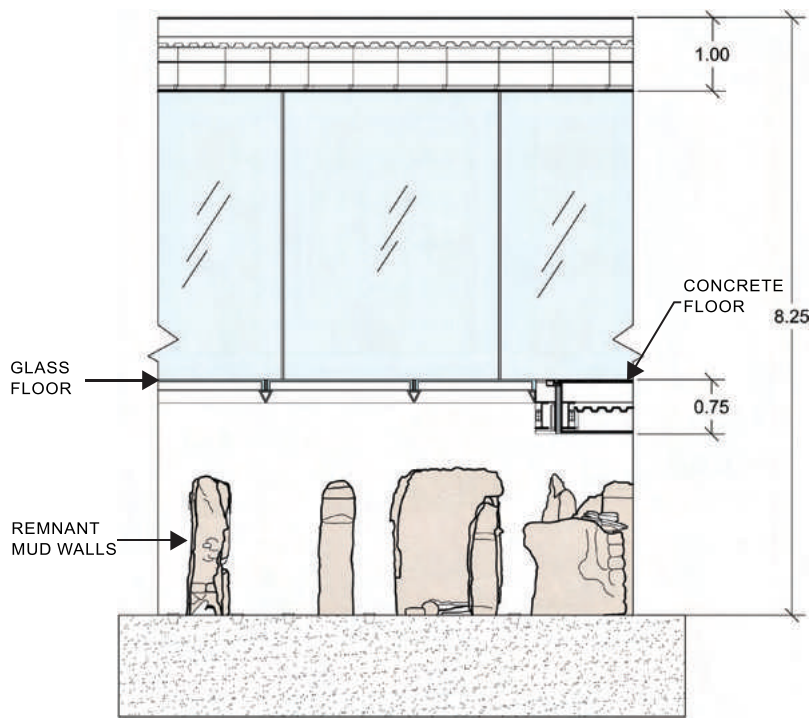
- MUD TEXTURE
- CONCRETE
- LAVENDER COLOR
- WOOD

SALWA PALACE

SECTIONS / DETAILED DRAWING

UNIT 7

GLASS FLOORING DETAIL DRAWING

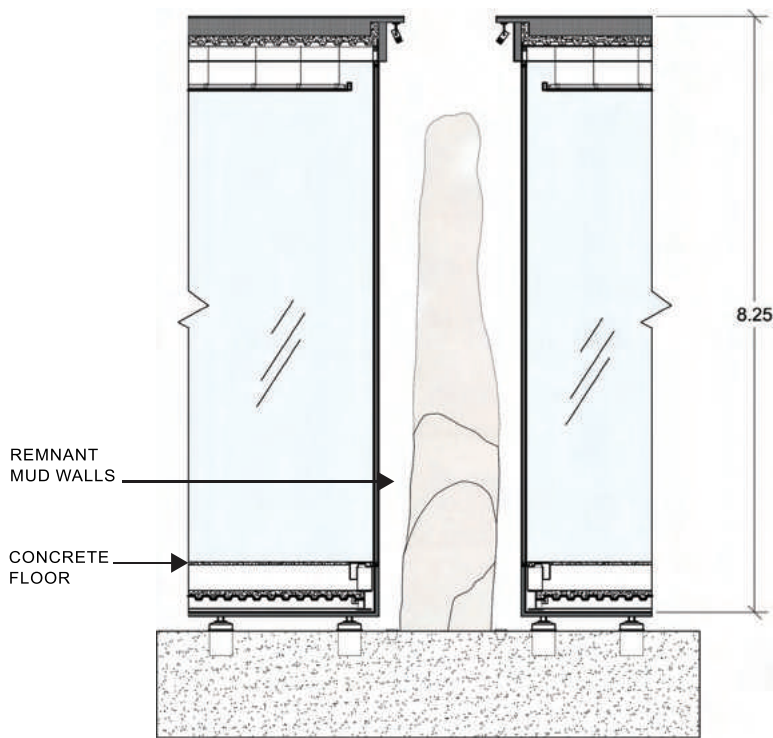


SALWA PALACE

SECTIONS / DETAILED DRAWING

UNIT 6

MUD WALL DETAIL DRAWING



SALWA PALACE

SECTIONS / DETAILED DRAWING

SHADING ELEMENT

