رؤيـــة VISION 2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA

العمـــارة السعودية
SAUDI ARCHITECTURE

Hejazi Coast

Architectural Design Guidelines

وزارة البلديات والإسكان
Ministry of Municipalities and Housing

مركز دعم هيئات التطوير
DEVELOPMENT AUTHORITIES SUPPORT CENTER

برنامج جودة الحيـاة
QUALITY OF LIFE PROGRAM

VERSION 1.0

FIG.1 **HEJAZI COAST ARCHITECTURAL CHARACTER AREA**

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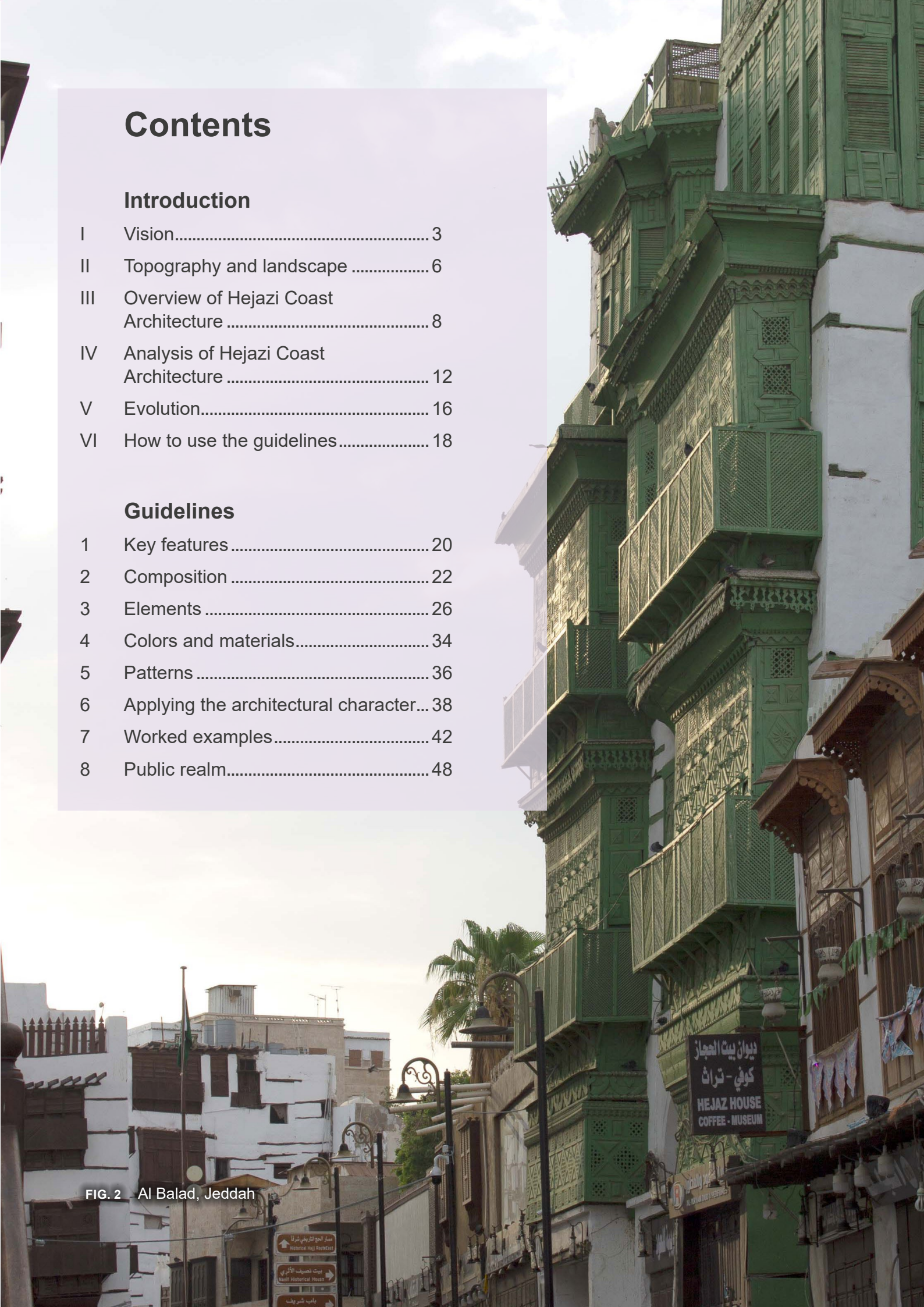


FIG. 2 Al Balad, Jeddah

FIG.3 **ARCHITECTURAL CHARACTERS MAP OF KSA**

INTRODUCTION

I Vision

To celebrate and preserve Saudi Arabia's rich architectural legacy inspired by culture, heritage and nature.

I.1 Guidelines philosophy

The Architectural Design Guidelines aim to foster contemporary design that is rooted in the diverse geographic and cultural contexts of the Kingdom.

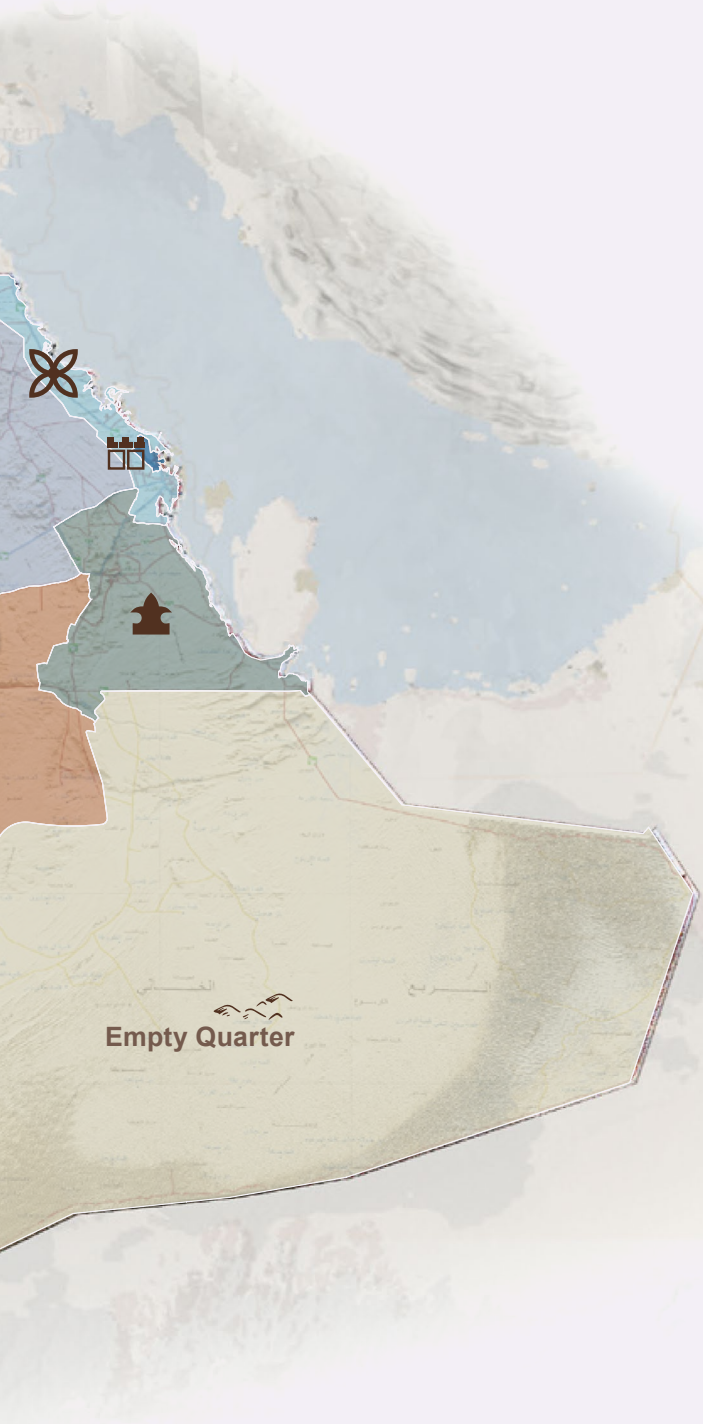
Its propositions are based on the study of historical precedent, taking inspiration from vernacular forms and the embedded knowledge shaped by generations of practice and experience.

The guidelines are forward-looking, intended for a wide range of contemporary development and suited for different levels of prescription. They aim to be succinct, well organized and useful: a positive resource for designers and easy to implement by planning authorities.

I.2 National context

This volume belongs to a suite of 19 documents, each exploring a different geographic context and describing a distinct architectural character within the Kingdom. Together they form a comprehensive portrait of the architectural heritage of the country.

Though application boundaries for the architectural character have been defined (fig. 3), influences may extend across boundaries. Designers are advised to consult adjacent areas architectural guidelines documents and confirm the status of their building context with facts on the ground.



Najran | Al Ahsa Oasis | Al Qatif Oasis | East Coast | Eastern Najdi | Special Zones

I.3 Hejazi Coast

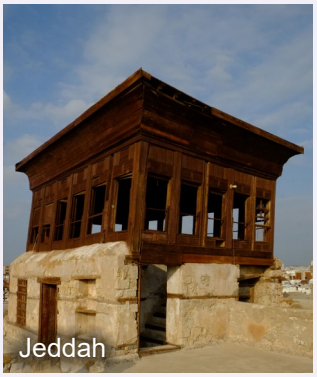
The port settlements of the Red Sea share much in common with each other; the combined influences of trade and pilgrimage have resulted in a rich architectural inheritance for the area, intermingling ideas, materials, and craftsmanship from places near and far into a distinct Hejazi character.

Simultaneously, each settlement brings its own local flavor, presenting unique inflections to the regional character. The interaction of towns with the contours of its coastline and its surrounding topography, the character and extent of their historic cores, and their gateway functions to inland destinations all combine to produce nuanced architectural variations. These variations will add to the overall attractiveness, providing a diversity of experiences and interaction.

Jeddah is the largest city in the province and has been shaped and sustained by its position as a commercial port and as a national and Regional center for Hajj travelers and their point for arrival.

Yanbu is located at the northern point of the Hejazi Coast with a vernacular character that is closely related to other towns around the Red Sea. While the craftsmanship of its historic buildings rival those found in larger towns, its expression and massing are more modest, comprised of lower floor-to-floor and overall building heights.

The city of Al Qunfudah is situated in the south of the Makkah Region on the coastal plain. Al Qunfudah houses reflect a more rural atmosphere, since they are frequently low-rise and ornamented with local ironwork, tile patterns, and colors.



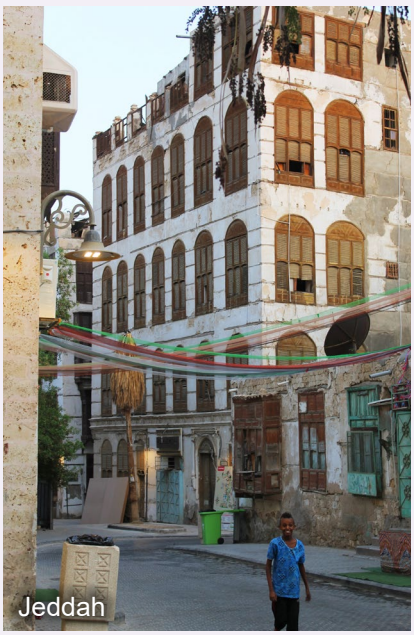


FIG.4 **HEJAZI COAST SOURCES OF CHARACTER**

II Topography and landscape

Observations on the links between landscape, climate, culture and the architectural character of Hejazi Coast.

II.1 Landscape

The settlements along the Hejazi coast and the areas distinct architectural character has been influenced by the areas varied topography and proximity to the Red Sea. The coastal edge is the section of the narrow Tihamah Lowlands that form the extent of the western coast of KSA between the Red Sea and the Hejaz and Asir Mountain ranges.

Settlements historically appear to have formed around natural bays where estuaries of wadis and possibly ancient rivers meet the Red Sea.

The coastal location has also provided access to tropical woods and a skilled workforce to craft its use.

II.2 Climate

Summer temperatures along the Hejazi Coast can reach 40 degrees celcius. In winter, the average temperature is closer to 24 degrees celcius. To gain relief from the high temperatures, sea breezes are exploited by the inclusion of balconies and Roshans. The coldest month is January.

The heaviest rainfall takes place between November and April. Due to high rainfall causing flooding buildings are also often raised to avoid erosion at their base.

II.3 Culture

The Hejazi coast is a central part of wider red sea trading and seafaring culture of Arabia, Egypt and East Africa. With Jeddah at its heart it provides gateways to Makkah (Jeddah) and to Madinah (Yanbu). In this way it provides strong links with international travelers and traders who introduced arts and craft skills to the area.

II.4 Architectural influence

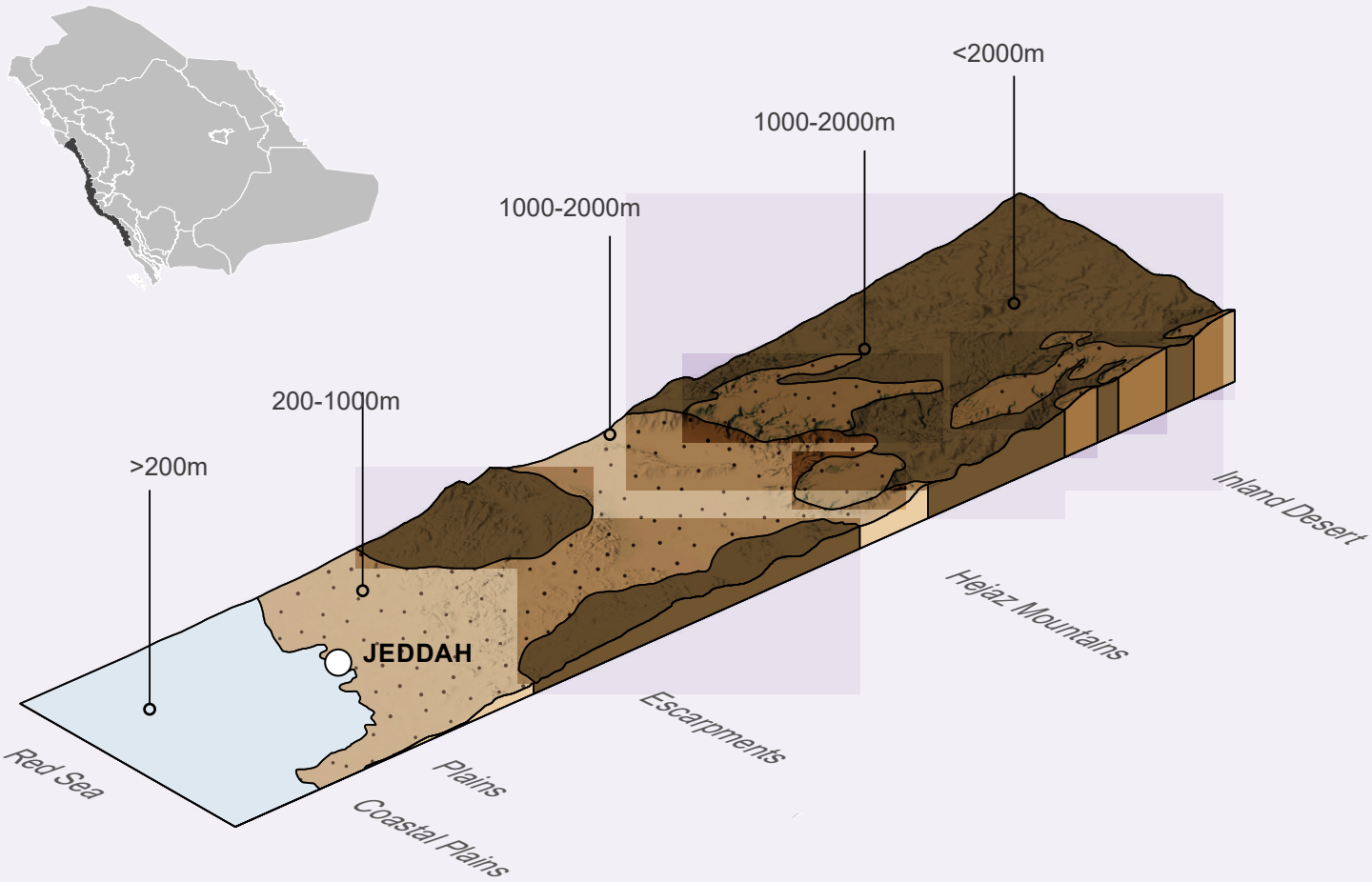
The continuity of architectural tradition in Saudi Arabia lasted several centuries until the emergence of oil in the 1930s.

Vernacular construction techniques were used in response to the resources and technology that were accessible, as well as the needs of the climate and other environmental factors.

Hejazi architecture also responds to the social and economic conditions of the region. The port towns on the Red Sea share this traditional architecture regardless of the administrative region.

The coastal location has resulted in the use of coral stone, often protected by a plaster finish to avoid the stone breaking down in this corrosive environment.

The street arrangement is organic with lower building heights due to construction limits, resulting in irregularly shaped urban blocks. The block sizes are smaller and permeable and the tight knit grain of development has an organic, narrow street pattern. Built form within the block is typically an amalgamation of smaller buildings and plots which create a diverse and varied streetscape.



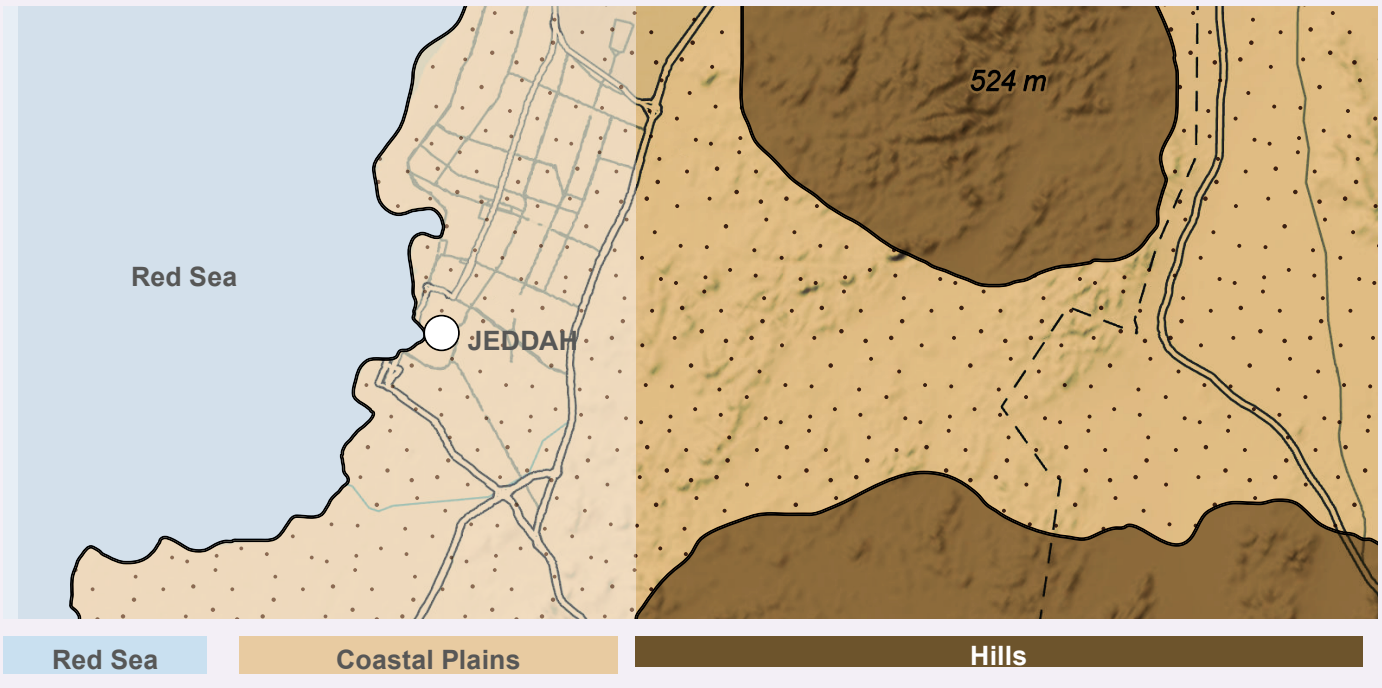


FIG.5 **HEJAZI COAST TOPOGRAPHY AND LANDSCAPE**

III Overview of Hejazi Coast Architecture

A summary of the existing character of traditional architecture and settlements of Hejazi Coast.

III.1 Architectural character

Historically, the Hejazi style was prevalent in the prominent holy cities of Makkah and Madinah, the port city of Jeddah, and other smaller port towns of the Red Sea. Located between the Hejaz mountains and the Red Sea west coast, these places were connected to networks of pilgrimage and trade across the sea and beyond.

These settlements have always been a melting pot where cultures from Asia and Africa met with Arabia. The traditional urban pattern and architecture of Hejaz bear notable similarities not only to each other, but to more distant places in Africa and the Arabian Peninsula. Sharing in common the flow of materials and trades, the craftsmanship of the mashrabiyya finds new expression in the roshan, and the use of the *Giddah* construction module surfaces throughout the region.

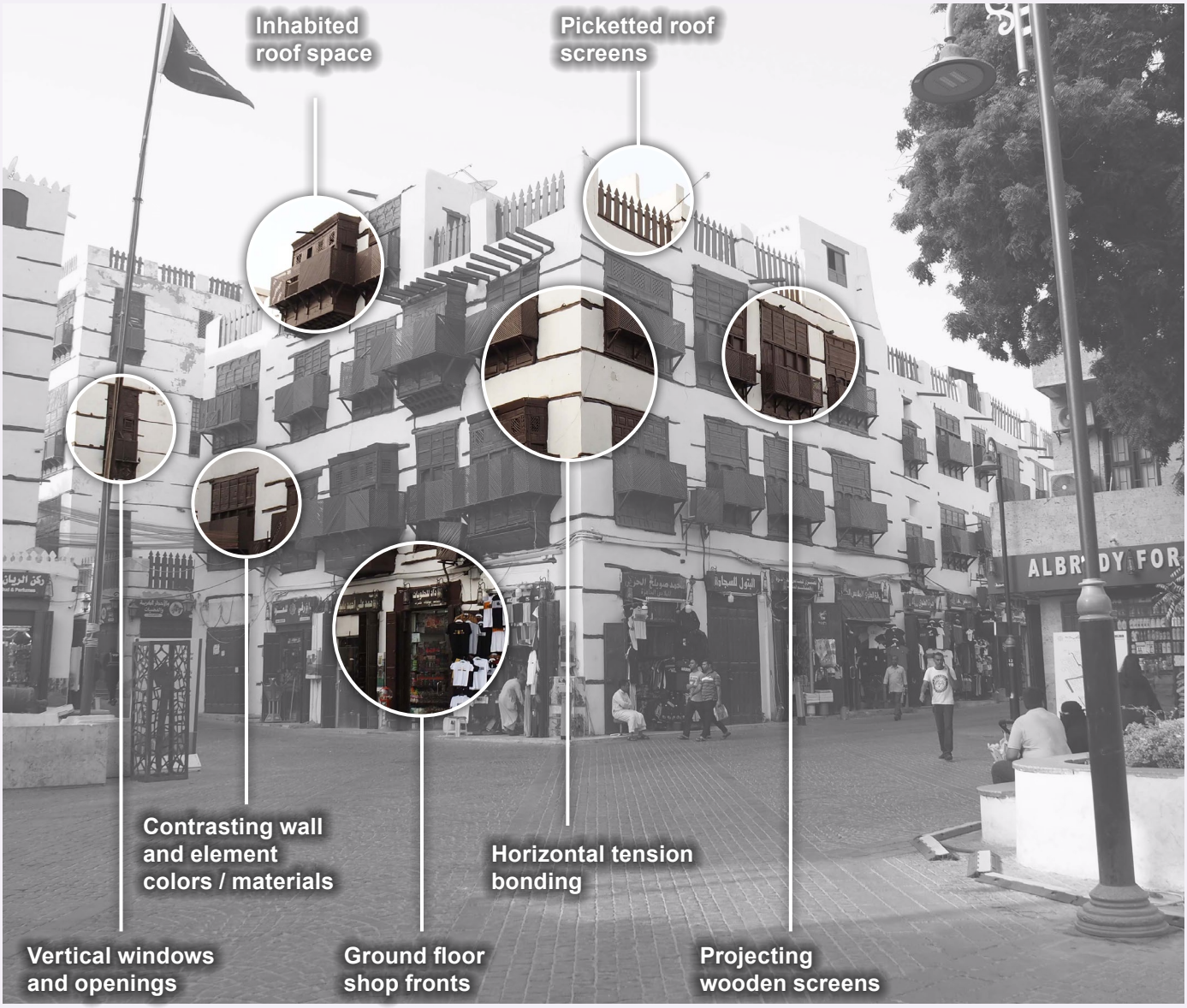


FIG.6 **HISTORICAL STRUCTURE, JEDDAH**

The vernacular character of the Hejazi Coast owes as much to international elements as to local ones. This pan-geographic condition is embedded within the matrix of its walls. Set in the coral stone from the Red Sea are ornate screens crafted of woods from places as distant as the islands of Java.

Moreover, the form and style of the Hejazi vernacular are a fusion of north, south, east and west. Traces of many cultures' craft mingle with influences from across the Arabian peninsula. As such, vernacular is not so much a return to a rustic origin, as it is a vibrant synthesis of many cultures brought by its historic role as the maritime gateway to Makkah.

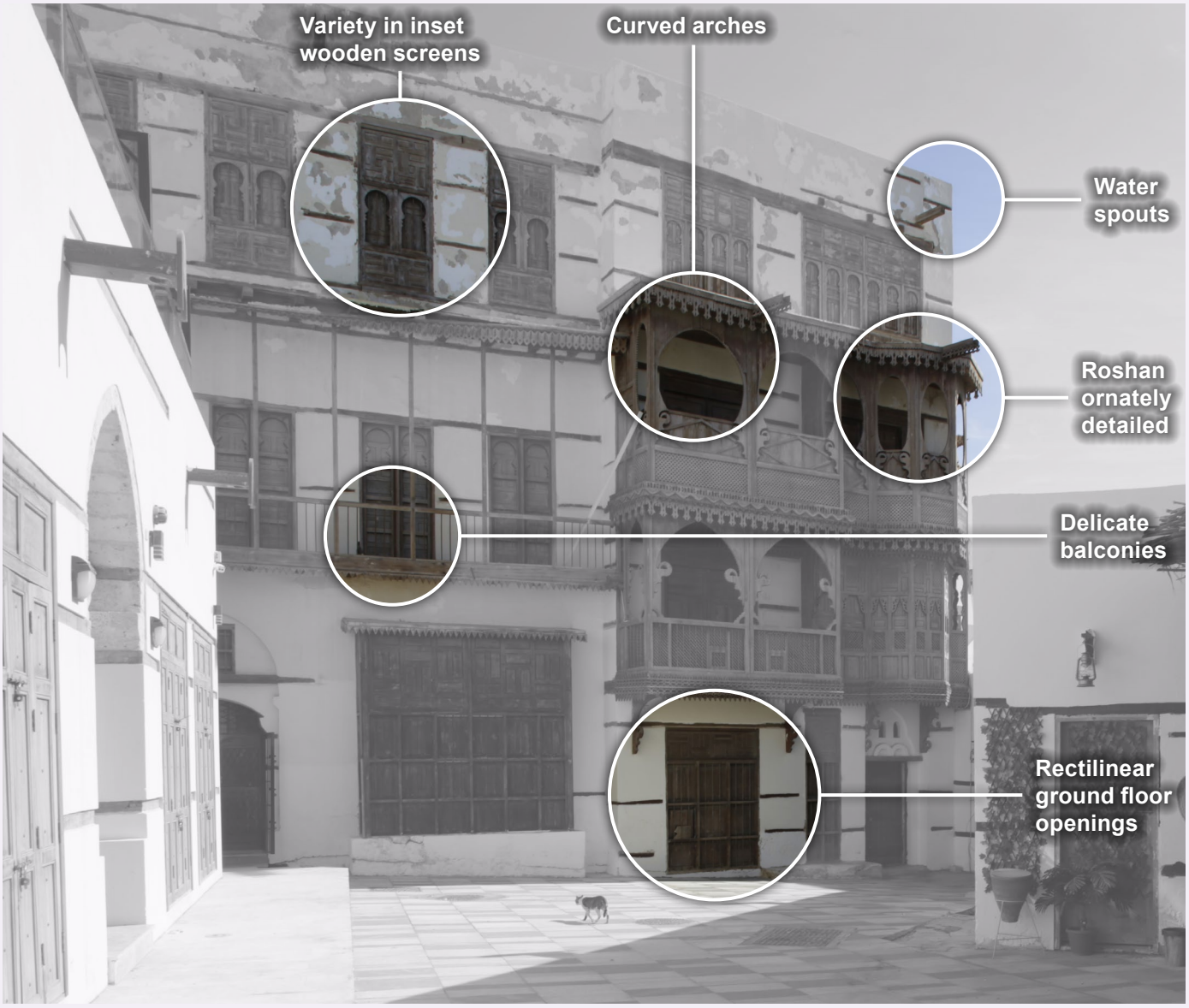


FIG.7 **HISTORICAL STRUCTURE, YANBU**

III.2

Public realm

The streetscape is enlivened with architectural features imbuing the public realm with a strong, lively character.

Openings at varying scales draw the eye from building to building. These include roshans and screens as well as other openings, large and small.

The streets are activated by a range of activities and uses, providing shade and incident.

At roof level, corner towers containing useful accommodation break up the skyline in different hues.

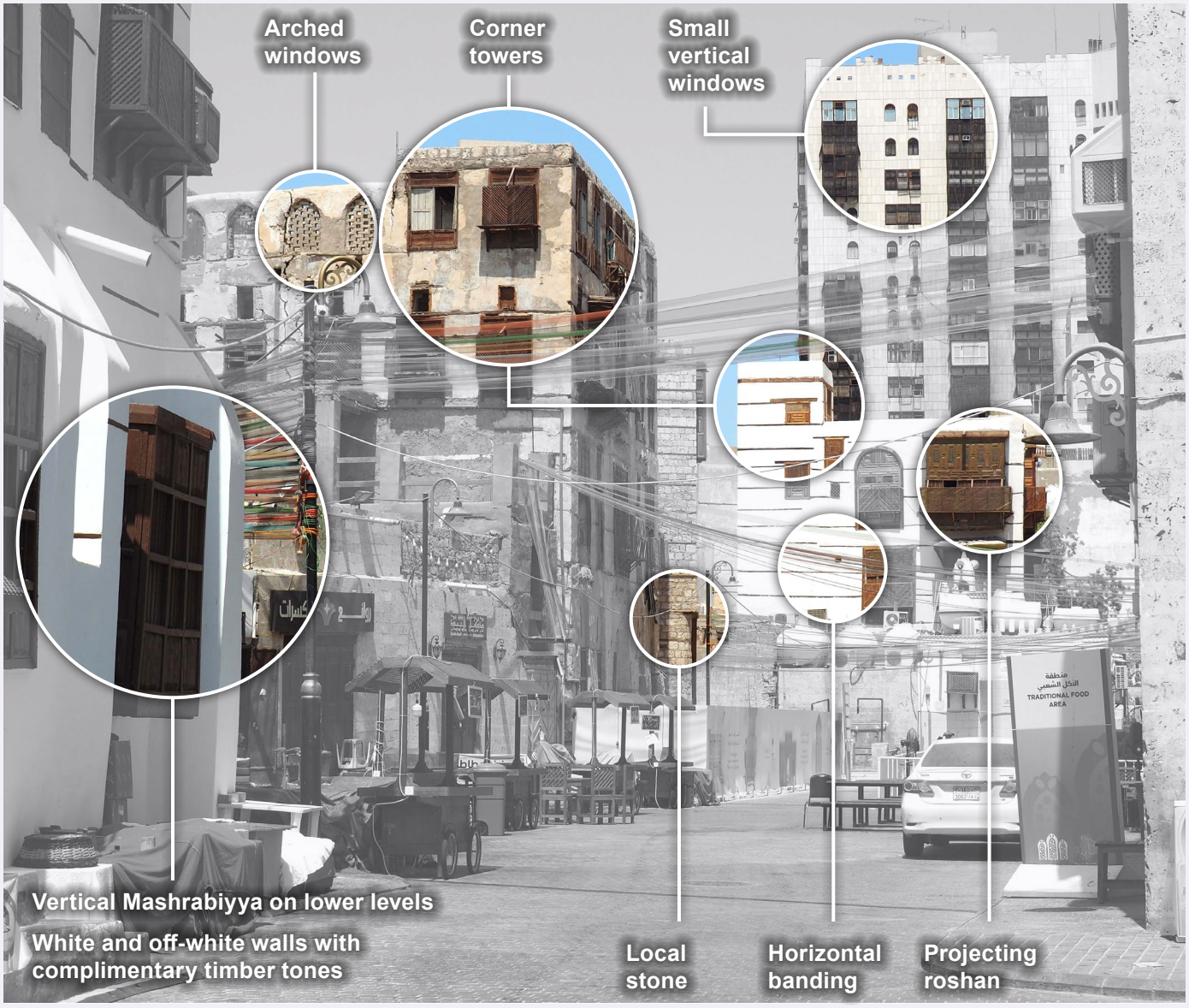


FIG.8 **TYPICAL STREET, HISTORIC JEDDAH**

III.3 Settlement character

The Region is abundant in natural and human histories, merging landscape formations with cultural pathways over time. Its natural resources and environment have shaped settlement patterns, informing design and materiality, and resulting in a distinctive traditional urban grain and architectural qualities

The settlements of the Hejazi Coast are compact in form, historically contained within walls, rising to create vibrant stepping roofscapes and tight, well shaded streets.

Commercial and pilgrimage routes strongly define street patterns, branching off into quieter, narrow streets and semi-private neighborhood squares.

FIG.9 **ROOFSCAPE, HISTORIC JEDDAH / AL BALAD**

IV Analysis of Hejazi Coast Architecture

The evidence and formal analysis upon which the guidelines are based.

Analysis of the key characteristics of typical buildings illustrates several common architectural traits which form the basis of guidance in Hejazi Coast. These are summarized under the following headings.

IV.1 Building typology

A unique building type based on extroverted structures and multi-layered facades often decorated and protected by roshans and sometimes reaching seven storeys in height.

IV.2 Aspect ratio

Vernacular residential buildings are marked by strong vertical proportions, indicated by a width-to-height ratio between 1:1.3 to 1.7.

Vernacular institutional buildings such as ribats and mosques are emphatically horizontal with a width-to height ratio well under 1:0.5, and significantly more opaque wall surfaces.

Early modern structures are modestly horizontal in proportion (1:0.6 to 1.25), with slightly less open facades than vernacular residential buildings.

IV.3 Solid-to-opening* ratio

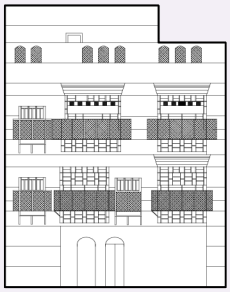
The facades of the Hejazi Coast look surprisingly open with walls often taking on a frame-like appearance of wall piers around entrances and fenestration, with a general range of 33-50% open void in the wall.

*For the purpose of these formal studies, openings refer not to transparent glazing or void, but to non-masonry and non-rendered 'infill' surfaces such as screens and roshans.

FIG. 10 Vernacular facade studies

Vernacular facade studies

Horizontally segmented

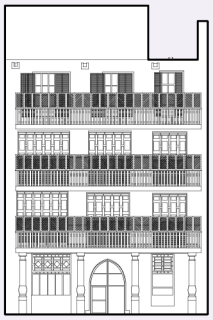


Aldafah

1:1.2

Facade area: 261sqm
Masonry - 184sqm
Timber - 77sqm
30% void

Horizontally continuous

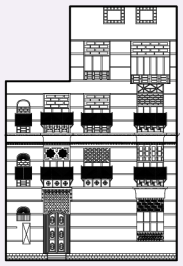


Albattarji

1:1.2

Facade area: 261sqm
Masonry - 119sqm
Timber - 142sqm
54% void

Vertically segmented

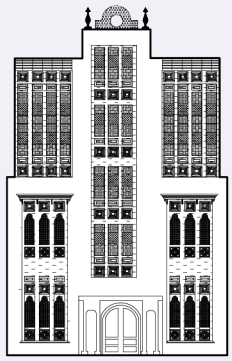


Muhammad Farsi

1:1.5

Facade area: 168sqm
Masonry - 107sqm
Timber - 61sqm
36% void

Vertically continuous



Alashgar

1:1.5

Facade area: 286sqm
Masonry - 114sqm
Timber - 1721sqm
60% void

IV.4 Tripartite articulation

Facades are typically split into three separate tiers with their own distinct character: base, middle, and top.

The middle tier is often the tallest, containing one or two internal floor levels with the ground and uppermost tiers contain single floor levels.

The presence of Taklilat reinforces the horizontal articulation of each tier, though traditionally they are covered by render for protection from weathering.

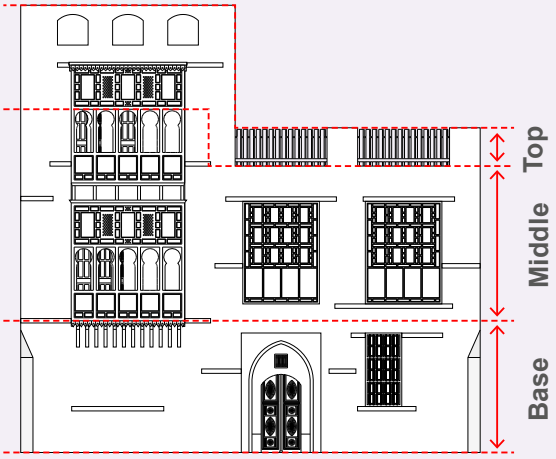


FIG. 11 Tripartite articulation
Facades split into 3 separate tiers of base, middle, and top

IV.5 Localized symmetries

Facades are often divided into localized symmetries whereby sections of the elevation have grouped openings.

Collectively this provides a loose asymmetry across the whole facade.

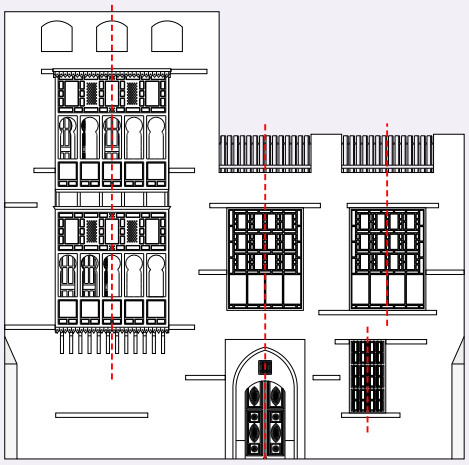


FIG. 12 Localized symmetries
Punched openings within solid masonry walls

IV.6 Hierarchy of windows

Windows are found in a range of sizes, related to the function of the rooms behind them. Important rooms may be fronted by projecting roshans (A). Typical rectangular wood screens adorn more typical spaces (B). Smaller, rudimentary openings are related to service spaces or ground floor rooms requiring greater security (C).

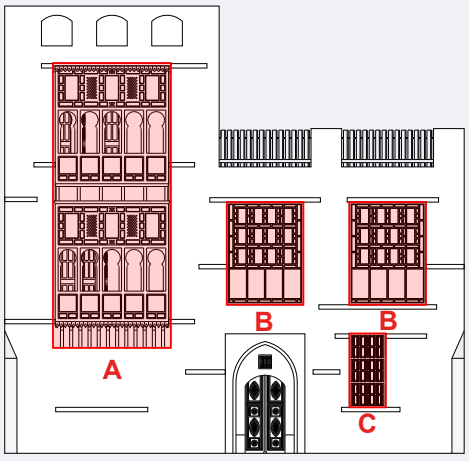


FIG. 13 Vertical bays
verticality to windows, doors and openings

IV.7 Projecting roshans and balconies

Timber projections in the form of balconies and or roshans are often highly decorative with carved privacy screens and structural elements.

Wood was a precious commodity imported from afar and its extensive use was a symbol of status.

FIG. 14 Projecting elements
Roshan, when stacked vertically, form projecting bays

IV.8 Habitable roofs

Habitable roof spaces range from simple enclosed terraces to elaborate al mabeet roof-top rooms. These spaces were typically protected by tall parapets, occasionally with timber ‘palisade’ fencing.

Rooftops offer functional spaces as well being used for sleeping in the hot summer months or to accommodate overflow of visitors.

FIG. 15 Habitable roofs
Roof-top rooms

IV.9 Arched openings

The majority of building facades have arched elements over doors and occasionally to window heads.

The roshans and screens also often incorporate arched forms in their timberwork at varying scales that give a decorative distinctiveness.

FIG. 16 Arched openings
Repeating arched elements to windows and doors

V Evolution

The connection of contemporary design with traditional forms to strengthen the architectural character of a place.

V.1 Connecting past to future

The guidelines aim to provide architectural roots for contemporary buildings so that they connect to their historical context, draw upon their local culture and reflect the spirit of a place.

At the same time, a balance between continuity and progress is needed. Advances in construction technology, material science, patterns of development and specifications for new building uses require guidelines that can accommodate these changes while preserving the essence of local architecture.

V.2 Connecting environment to form

The guidelines also aspire to connect buildings to their geography. Physical context has traditionally influenced the materials available, the patterns of development and the climate response required from architecture.

These environmental constraints have created a matrix of related, regional building typologies. The guidelines aim to provide a layer of stylistic influence to accentuate these regional building types into distinct characters that can be gathered into a diverse yet related national ‘family portrait’ of architectural character across the Kingdom.

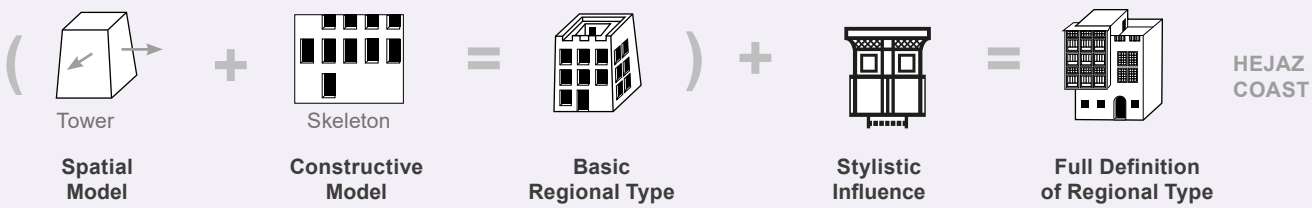


FIG. 17 Character equation for Hejazi Coast (after Ishteeaque & Al-Said 2008)

Traditional building

TRADITIONAL

Simple masonry structures in a tripartite arrangement with layered facades often deploying roshans, screens and balconies.

Transitional building

TRANSITIONAL

Taking the spirit of traditional forms and characteristics whilst translating them into a more contemporary idiom. Facade elements are simplified whilst retaining the proportions and materiality of the traditional.

Contemporary building

CONTEMPORARY

Creating a ‘light strength’ character to contemporary buildings. The overall form follows similar proportions to traditional buildings. Placement of openings, projections and symmetries, alongside decorative elements should take inspiration from traditional buildings, seen through a contemporary lens.

FIG. 18 Evolution of styles

VI How to use the guidelines

The guidelines have been organized to present the rules of architectural character in a clear, efficient and useful way.

VI.1 Chapter organization

The first chapters sort the guidelines into different dimensions that help define architectural character:

1. **Key features -** The most essential characteristics for the architectural character.
2. **Composition -** The rules by which buildings are shaped and elements are related to one another.
3. **Elements -** The individual parts that are the building blocks of the architectural character.
4. **Material and color -** The prevalent materials used and color range found within the architectural character.
5. **Pattern -** Common motifs and patterns used in the traditional craftsmanship and material culture of the local architecture.

These chapters are followed by two sections focused on guideline implementation:

6. **Applying the character -** Guidance for the proper interpretation and use of architectural character in new buildings.
7. **Worked examples -** Design studies that illustrate the use of architectural character at different scales and strengths.

The document concludes with:

8. **Public realm -** An overview of public realm character in Hejazi Coast.

VI.2 Guideline formatting

Individual guidelines are formatted graphically to make them more useful:

1. **Chapter number and heading -** Guidelines are gathered into major categories for ease of reference.
2. **Guideline number and heading -** Guidelines are given a unique 2-digit decimal number and heading for ease of reference and to provide precision in enforcement.
3. **General description -** Descriptive text to introduce the guideline topic.
4. **Guideline actions -** Instructions clearly identifying the actions to be taken by designers. Each action is numbered for ease of reference and to provide precision in enforcement.
5. **Rationale -** Set in colored text and highlighted by a side bar are the objectives and reasons for the guideline. This gives the applicant an opportunity to propose designs that meet the rationale through alternative ways. Alternatives require the approval of the relevant local authority.
6. **Illustrations -** Illustrations, photos and diagrams that help explain the guidelines. They are examples only: where contradictions arise between illustrations and guideline text, the text shall overrule the illustration.

The items above correspond to the figure on the facing page.

Link to the contents page

1 Chapter number and heading

2 Guideline number and heading

3 General description

4 Guideline actions

5 Rationale

6 Illustrations

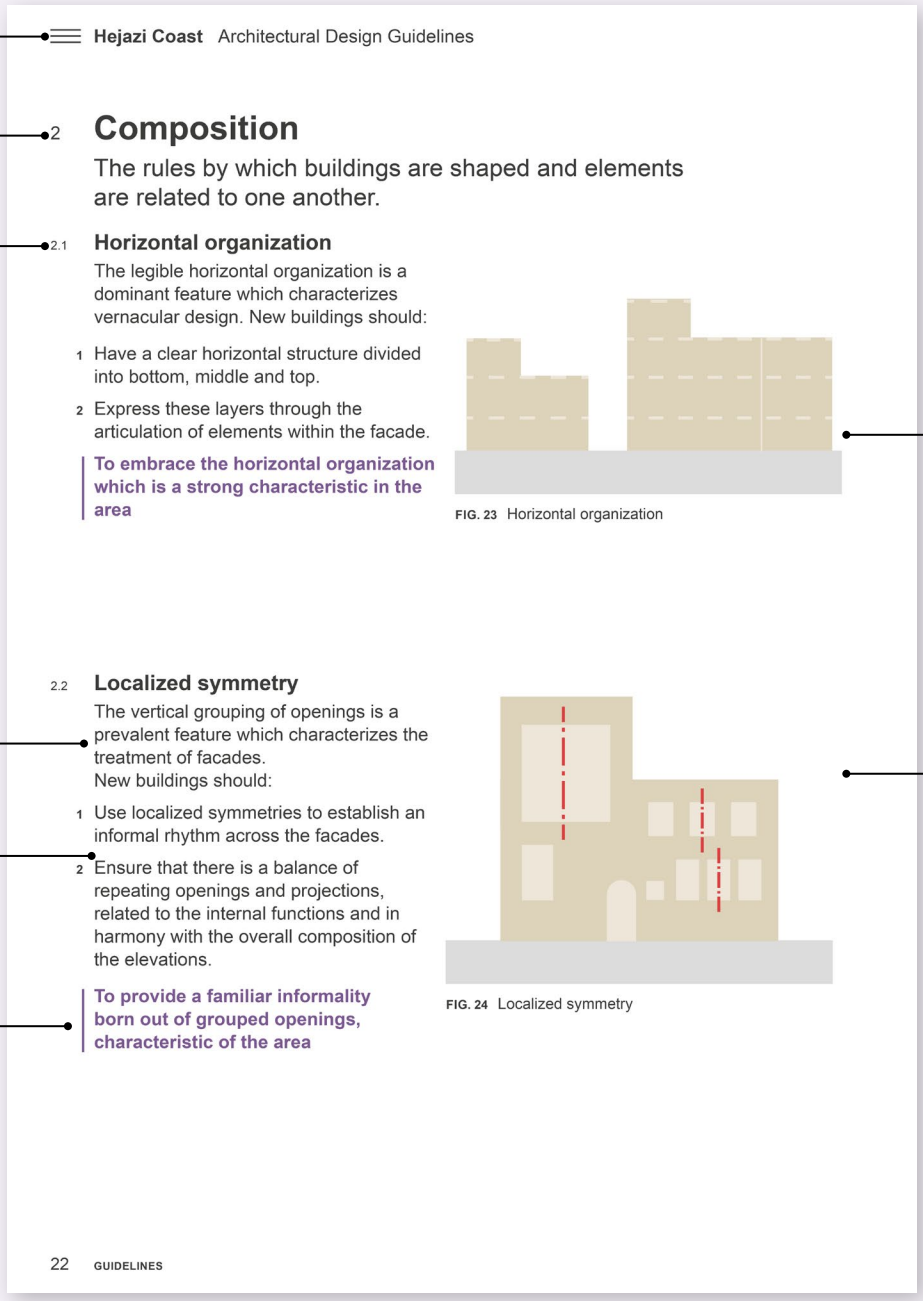


FIG. 19 Typical guideline structure

GUIDELINES

1 Key features

The most important attributes essential for conveying the architectural character of Hejazi Coast.

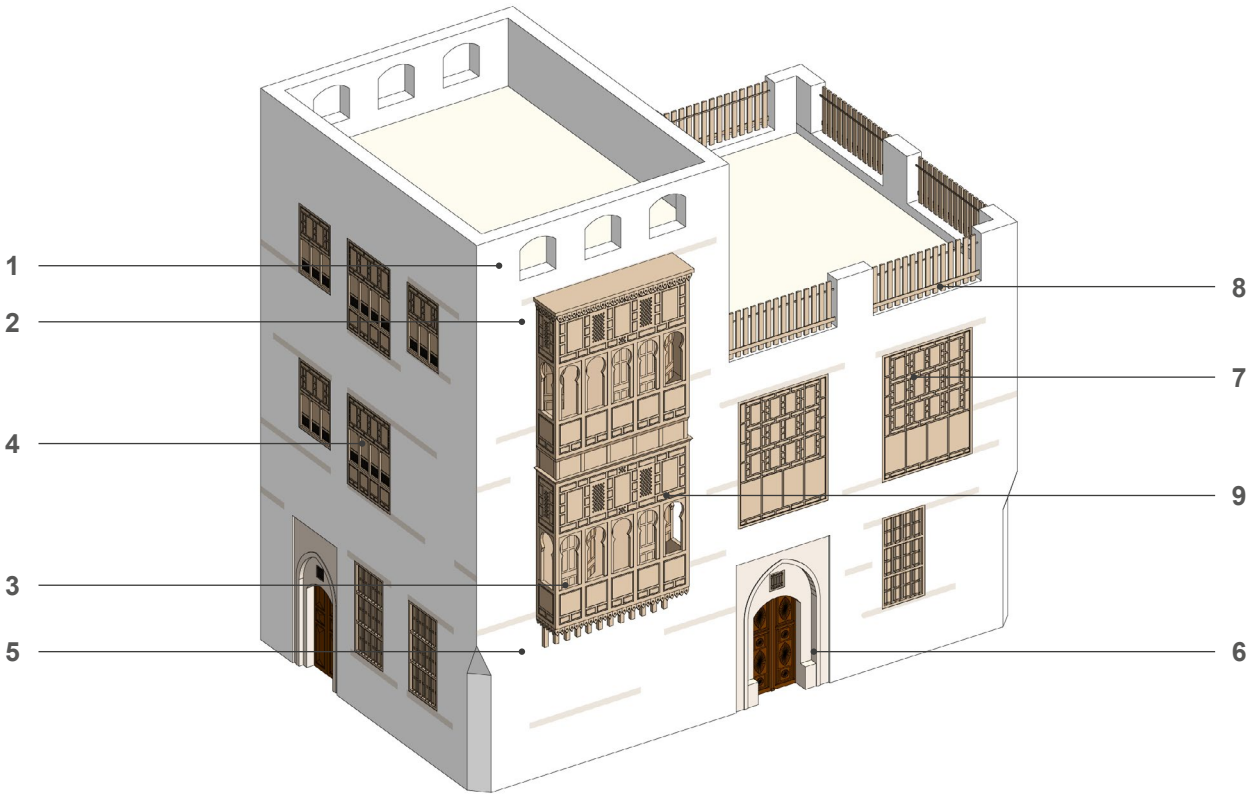


FIG. 20 Hejazi Coast key features

Key features:

1 Generally rectangular building massing with varied, stepping flat roofs.

2 Coral stone walls with mainly upright, vertically proportioned openings, shaded by timber elements and shutters.

3 Projecting roshans at ground or upper level. Can be single or stacked.

4 Horizontal alignment and grouping of openings with local symmetry.

5 White and off-white walls with horizontal timber elements (taglilat) which can be contrasting colored or rendered white.

6 Primary entrances accentuated with straight or arched top openings, vents, and/or wall recesses.

7 Distinct hierarchy of window sizes (roshans, rectangular screens, small openings).

8 High parapets enclosing roof terraces with regular openings, pillars and timber pickets or screens.

9 Intricate geometric patterns in timber screens, around entrances and on wall panels.

1.1 Character summary

The vernacular character of the Hejazi Coast combines international influences as well as local ones with coral stone, lime render and carved or colored timber elements.

The local typologies present a variety of stepped forms and roof-lines with a combination of stone, render and timber in harmony with each other and the ground on which they sit. Added to that is a rich decorative elements, mainly carved in the timber, which imbue the architecture with a rich textural heritage.

A variety of factors must be considered when developing vernacular settlement areas. Sites with existing structures must be evaluated to see whether they have considerable value that should be preserved. The preference is to preserve and adapt existing buildings (where possible) rather than demolish and construct new structures. Where new construction is the most practical alternative, massing, size, materials, and architectural style will all be crucial factors to assist the buildings in integrating into their surroundings.

FIG. 21 Nasseif House, Al Balad, Jeddah

FIG. 22 Examples of Hejazi architecture in Jeddah Al Balad

2 Composition

The rules by which buildings are shaped and elements are related to one another.

2.1 Horizontal organization

The legible horizontal organization is a dominant feature which characterizes vernacular design. New buildings should:

1 Have a clear horizontal structure divided into bottom, middle and top.

2 Express these layers through the articulation of elements within the facade.

To embrace the horizontal organization which is a strong characteristic in the area

FIG. 23 Horizontal organization

2.2 Localized symmetry

The vertical grouping of openings is a prevalent feature which characterizes the treatment of facades.
New buildings should:

1 Use localized symmetries to establish an informal rhythm across the facades.

2 Ensure that there is a balance of repeating openings and projections, related to the internal functions and in harmony with the overall composition of the elevations.

To provide a familiar informality born out of grouped openings, characteristic of the area

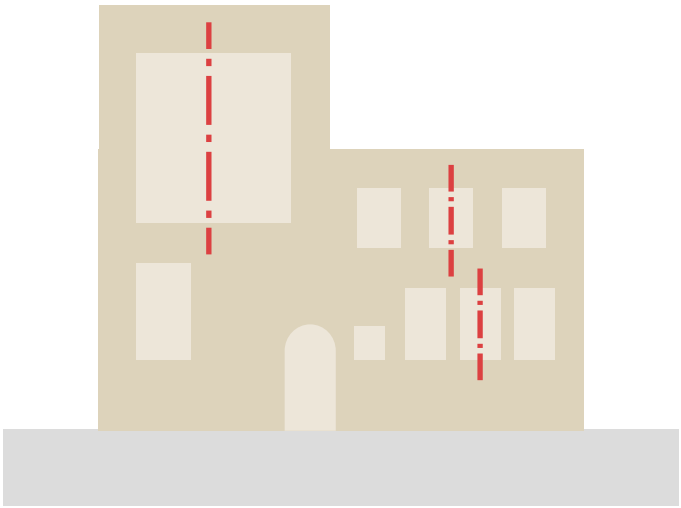


FIG. 24 Localized symmetry

2.3 Framed facades

Frame-like walls and with large openings in the form of windows and doors.
New buildings should:

1 Be of solid construction and have load-bearing facades.

2 Have generous openings of regular proportions and ratios.

3 Respect the internal organization and hierarchy of spaces within.

To ensure the balance of solidity and frame-like character of the regional architecture is reflected in new architectural forms

FIG. 25 Frame-like walls with regular openings

2.4 Projecting elements

Elements such as roshans and balconies provide a layering of the facade, whilst flush screens vary the scale of openings.
New buildings should:

1 Use projecting elements judiciously to create key architectural features on facades.

2 Contrast with flush or recessed screens in smaller, secondary openings within facades.

3 Be functional and useful, proportioned carefully at a sympathetic scale.

To give rich textural layers to the buildings, in harmony with the local vernacular

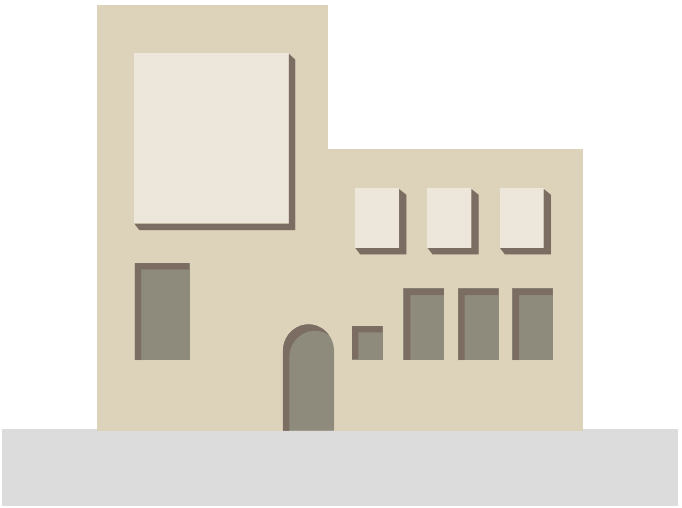


FIG. 26 Projecting elements

2.5 Hierarchy of windows

Windows have a range of sizes related to their interior rooms. New buildings should:

1 Have a distinct hierarchy to windows, ranging from the large and prominent roshans (A), the typical regular screens (B), and small, functional openings (C).

2 Openings should be primarily of upright proportions.

3 Openings should be typically subdivided into narrower vertical panels.

To reflect the organizational pattern of openings typically found on Hejazi buildings

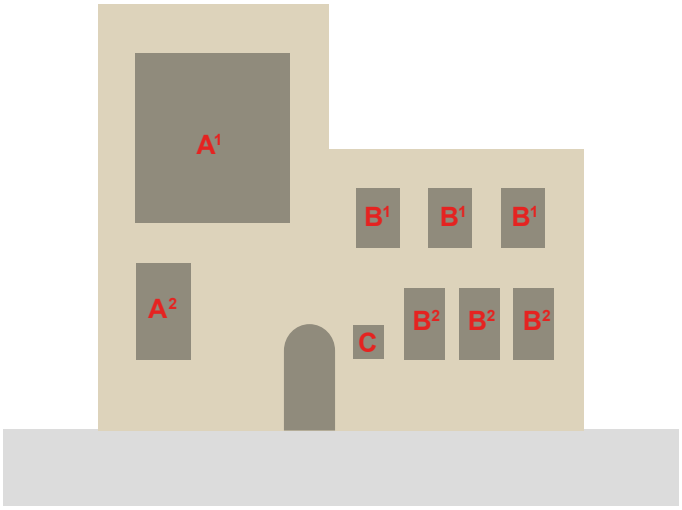


FIG. 27 Window hierarchy

2.6 Arched openings

Arches are incorporated into significant elements such as main entrance doors, window heads and decorative screens. New buildings should:

1 Utilize arches, particularly for entrance doors and in various strengths depending on typologies and level of traditional emphasis.

2 Balance the use of arches with simpler flat topped openings to avoid overuse.

To provide familiar motifs to openings, characteristic of the area

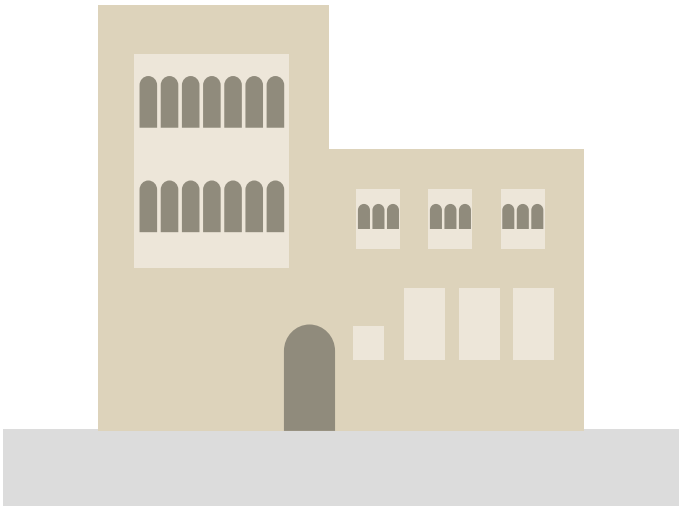


FIG. 28 Prevalence of arches

2.7 Continuous streetwalls

Traditionally, urban blocks were created with an organic accretion of buildings that clearly defined streets. Buildings should:

1 Align primary street-facing facades with adjoining buildings.

2 Share party walls with neighbors to create larger urban blocks.

3 Present subtle variety in height and alignment between neighbors.

To reflect the relaxed nature of collections of building

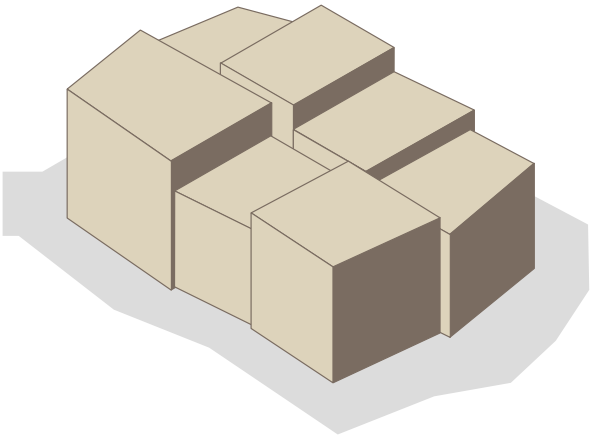


FIG. 29 Blocks of attached buildings

2.8 Courtyards and lightwells

Courtyards and lightwells are an important component of vernacular architecture. Buildings should:

1 Provide private outdoor amenity that is enclosed by adjacent buildings on three or more sides, and boundary walls on remainder

2 Provide indirect lighting and ventilation to the surrounding building interiors.

To apply vernacular approaches to environmental control

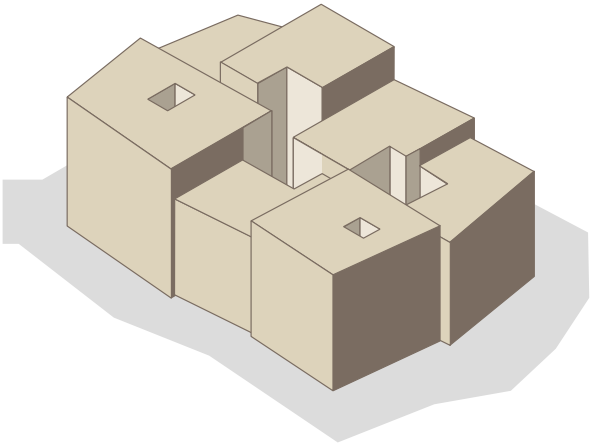


FIG. 30 Courtyards and lightwells

2.9 Stepping roofscape

Traditionally, simple terraces were enclosed by tall parapets and roof-top rooms. New buildings should:

1 Offer accommodation in the form of roof-top rooms, often on corners.

2 Be protected by tall parapets, screens and enclosed rooftop elements.

To respond to the varied roofline and for the use of the roof

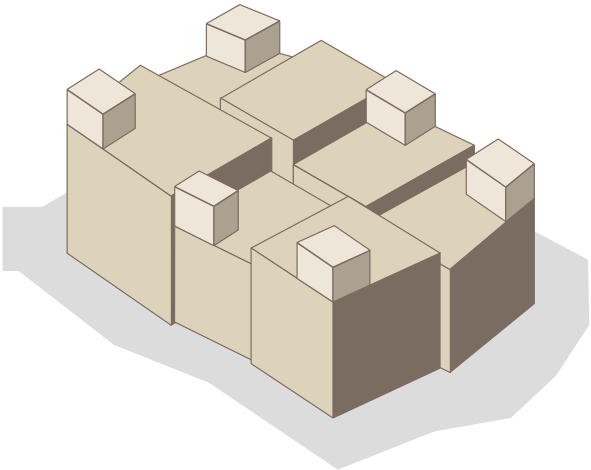
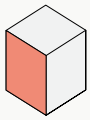
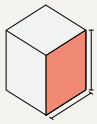
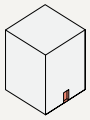
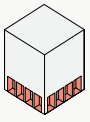
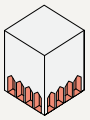
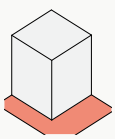


FIG. 31 Habitable roofs

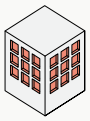
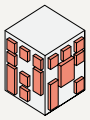
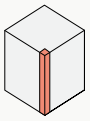
3 Elements

The individual parts that are the building blocks of the Hejazi Coast architectural character.

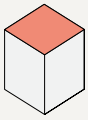
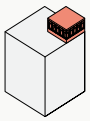
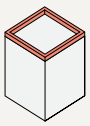
TAB. 1 Hejazi Coast architectural elements

	GENERAL ELEMENTS	
	**Key characteristics**	Refer to introduction pages for key characteristics. (p. 8 & 9)
	**Facade proportion**	Vertical proportions, have a width to height ratio of approximately 2:1, with proportions of 5:1 seen on significant buildings. They should remain horizontal, and create clear horizontal articulation between base, middle and top.
	**Window-to-wall %**	Should have a range of window sizes set within large areas of solid wall. Up to 30 - 40% maximum of the facade is openings. Openings should be protected from direct solar radiation
	**Opening proportions**	Composition should have localized symmetries with a clear vertical order. Facades should have horizontal banding. Openings should be generally vertical, with proportions of width to height ranges of, for doors 1:3-1:4, for windows 1:3.5-1:4,
	**Composition**	Depending on overall building size, the base may be characterized by as much as the first 1 - 3 storeys of the building above ground.
	BASE ELEMENTS	
	**Entrances**	Entrances should form part of a localized asymmetrical composition with other openings on the facade; these may be grouped into a local bay set within a larger symmetrical order.
	**Shop fronts**	No externally mounted rolling shutters; recessed shutters preferred. If awnings and shades are used, they should be secondary to the main facade and be demountable. For areas of historic character, sideways folding shutters flush mounted with the building facade are preferred.
	**Arcades**	Where a building is located on a important route, buildings could provide an arcade at the ground floor to create a more walkable city and enhance the public realm.
	**Curtilage**	The exterior ground floor of buildings, including any the covered exterior space of arcades, should seek material and design integration with the surrounding public realm. The interface between the public realm and the curtilage should be universally accessible, with no sudden changes in level, single steps or other trip hazards. Careful attention should be paid to ensuring a positive pedestrian experience by improving the microclimate around buildings.

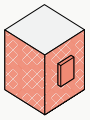
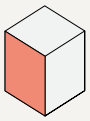
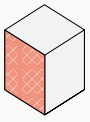
MIDDLE ELEMENTS

	**Wall articulation**	Horizontal timber banding at approximately 1.2m vertical spacing. Typically aligned with opening sills and heads. May be in discontinuous strips, and vary in alignment across facade.
	**Windows and Openings**	Window and opening design are subject to a number of compositional guidelines. See 3.2 “Windows and openings”
	**Projecting elements**	Roshans and balconies may project in front of the main facade, over one or more floors and at a familiar scale to the vernacular
	**Recessed elements**	Recessed elements are set inwards from the building facade This includes recessed doors where there is an enhancement to the entrance sequence.
	**Shutters and Shading**	Shading may be achieved by recessing openings from the facade, or providing perforated or decorative screens. These may be metal or timber and should use patterns compatible with the local vernacular
	**Corner features**	Generally square corners. Corner features can be used to assist in architectural wayfinding, create ‘urban marker’ buildings with increased in height at the corner, mark main entrances, and provide variation in the streetwall height. Corbeled/chamfered corners are permitted where a building has two primary facades

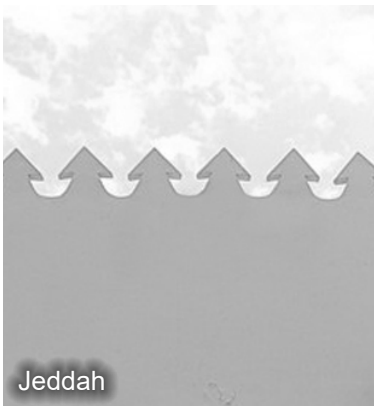
TOP ELEMENTS

	**Roofscape**	Active, accessible roofspace is encouraged. Roofscape can be punctuated by taller, exaggerated height above corners and main entrances
	**Rooftop Elements**	Should be set back from the parapet/building facade and be of a lighter expression of construction (i.e. materiality or color).
	**Parapets**	High parapets enclosing roof terraces with regular pillars, with decorative screens, openings and castellations Where building plant is located on the roof it should be set back or enclosed so as not to be visible from the street

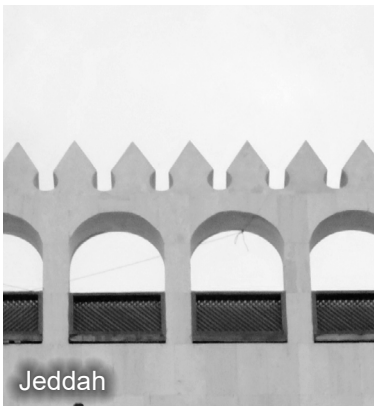
OTHER ELEMENTS AND ORNAMENTATION

	**Materiality**	See expanded guideline on “Materials and Colors” in guidelines section 4
	**Color**	See expanded guideline on “Materials and Colors” in guidelines section 4
	**Pattern**	See expanded guideline on “Patterns” in guidelines section 5

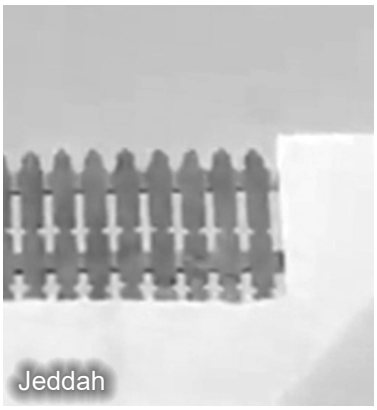
Top



Traditional parapet denticulations

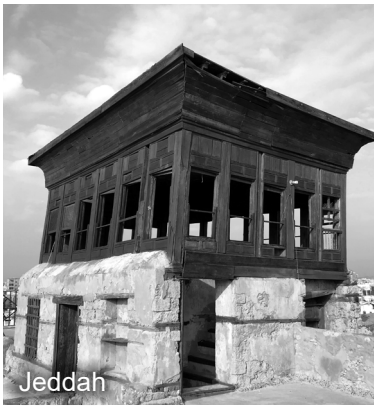


Arched parapet with denticulations

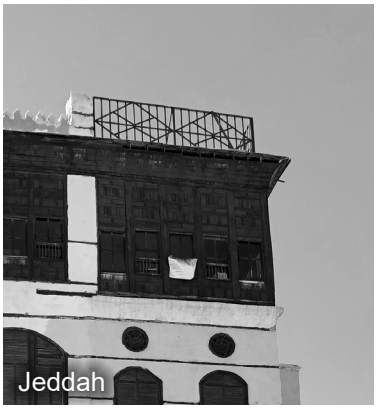


Timber fence parapet

Traditional rooftop element

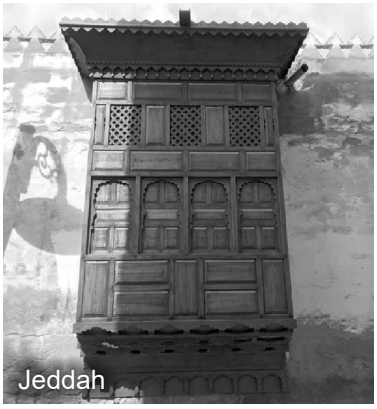


Traditional rooftop element

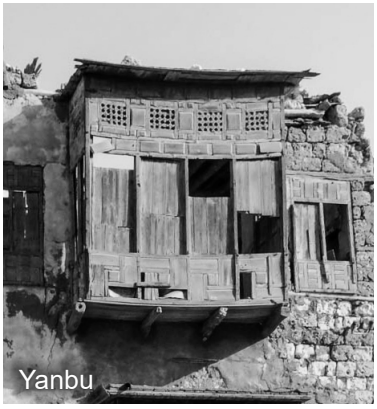


Traditional rooftop element

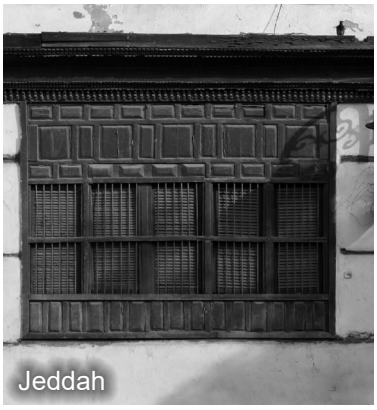
Middle



Typical roshan

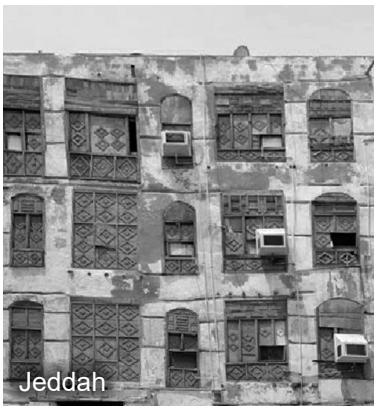


Traditional roshan

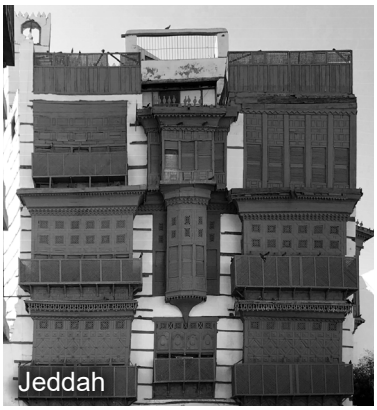


Typical fenestration

Horizontally articulated roshans with privacy screen



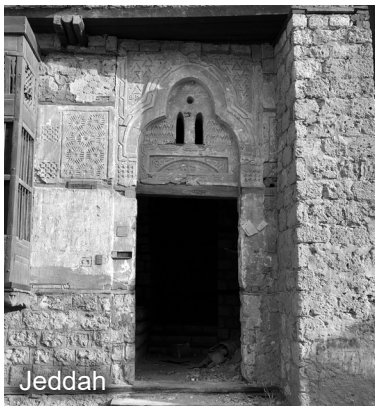
Distinct hierarchy of window sizes



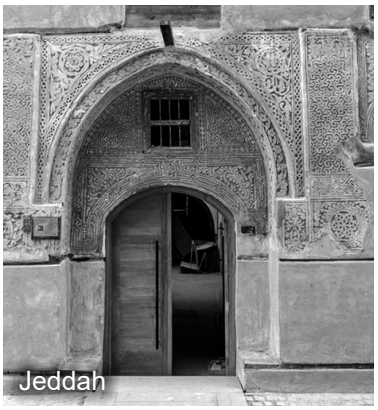
Vertically connected roshans with privacy screens

FIG. 32 Examples for top and middle elements

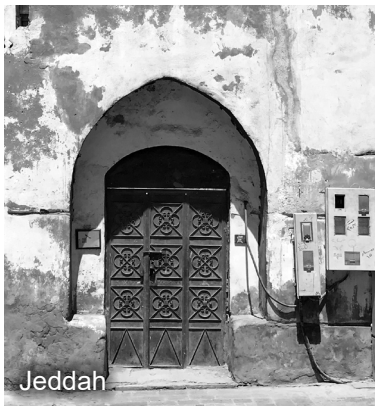
Base



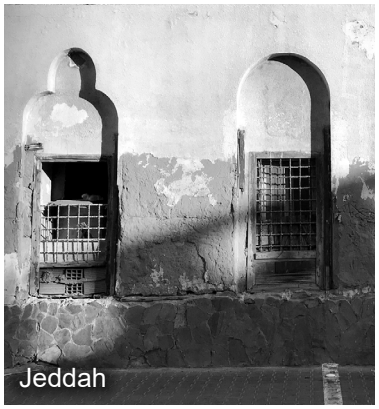
Typical entrance



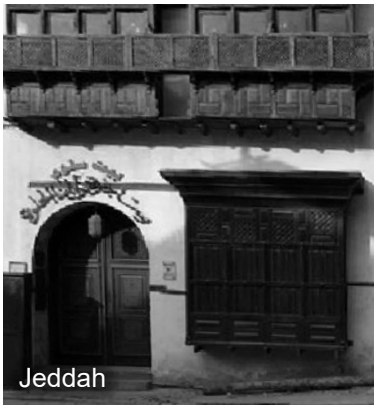
Ornamented arched entrance



Typical arched entrance



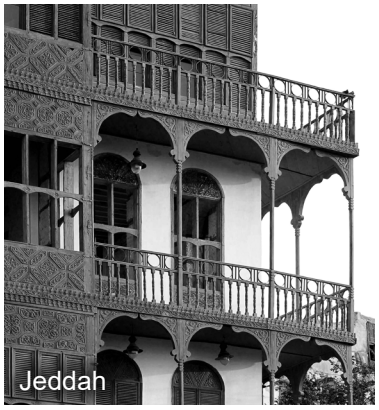
Traditional arch details



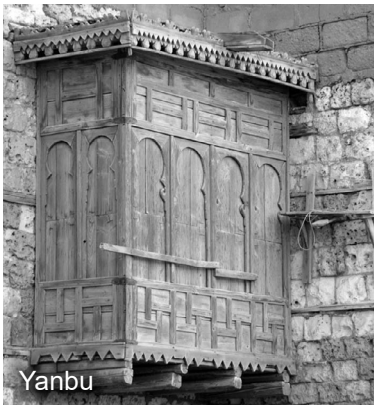
Entrance with roshan

Shopfront

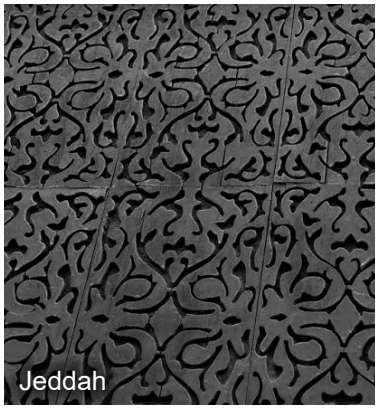
Ornaments and other elements



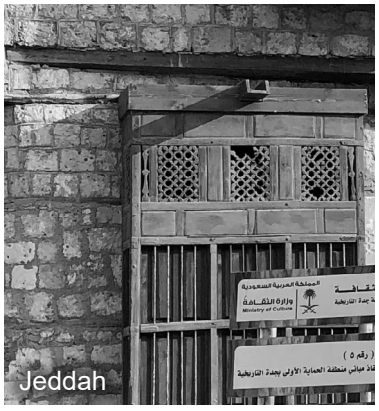
Projecting veranda



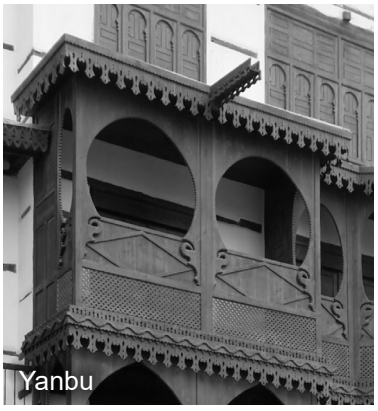
Roshan ornamentation



Example fretwork detail



Example corbel detail



Ornamented roshan

Example masonry detail

FIG. 33 Examples for base and other elements

3.1 Doors and entrances

Doors and openings should be carefully designed in terms of size, shape, proportions, and orientation. Natural light reduces energy consumption whilst also improving the physical and psychological well-being of occupants. Openings can also help with natural ventilation, which helps with cooling and maintaining a comfortable internal environment.

The design of new buildings should:

1 Have door openings that are vertical.

2 Ensure primary entrances are clearly defined as they play a significant role in determining quality and character.

3 Create depth and a sense of entry with door framing and recessing.

4 Have decoration and articulation to reflect the prominence of the household and the town.

5 Separate the public and private realms by entrance thresholds.

6 Secondary entrances (for example, for services or deliveries) should be subordinate to the main entrance.

7 Where possible, building entrances should be staggered rather than facing each other across the street to improve privacy.

8 Non-residential building entrances must be level with the street. If not, the sidewalk from the entrance must be accessible without any steps or ramps projecting into the public space.

9 Consider articulating the entrance and openings with plaster and wood decorations, arches, and other elements.

10 Doors should be of a width to height proportion width 1:3 - 1:4.

To create entrances with Hejazi character, and to contribute to the public realm.

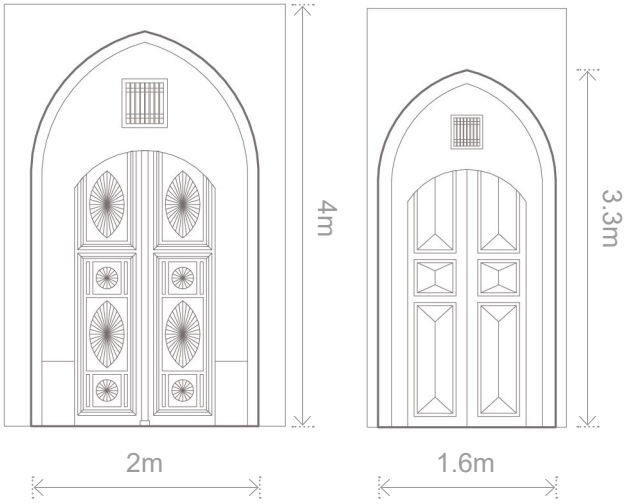


FIG. 34 Traditional door elements

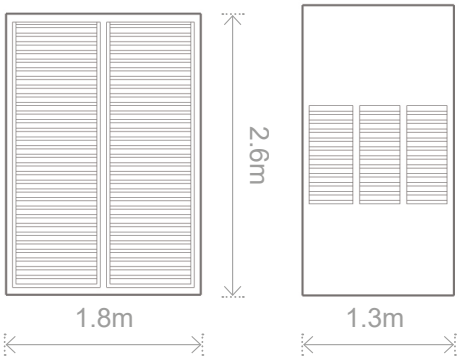


FIG. 35 Transitional door elements

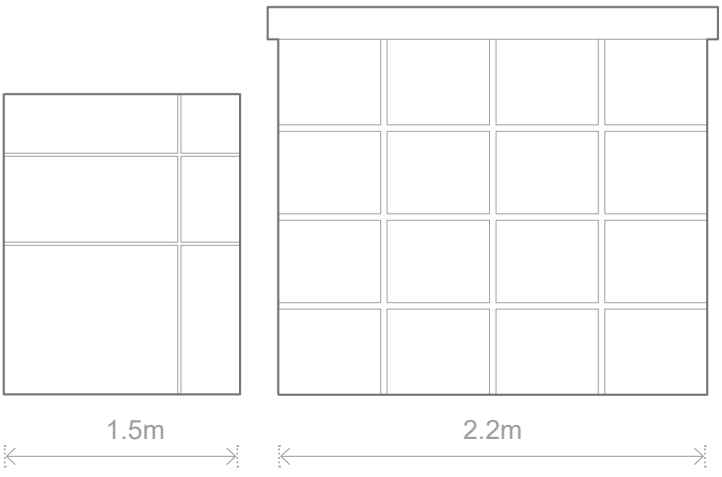


FIG. 36 Contemporary door elements

3.2 Windows and openings

Characteristics include:

1 Openings should respond to the internal disposition of spaces within.

2 Windows have predominantly flat tops with simple lintels with occasional arched heads.

3 Projecting roshans should have strong verticality with legible vertical bays.

4 Use figured and geometrical patterns on timber frames and screens.

5 Timber shutters and screens employ simple rectangles and a variety of carved decoration.

6 Opening surrounds may be recessed from the main facade to increase compositional layering and the play of light on the facade.

7 Protect glazing from direct solar radiation. Traditional means such as deep reveals, screens, shutters and awnings are preferred.

8 Prevent glare nuisance; mirrored and highly reflective glass coatings should not be used.

9 Openings should be aligned horizontally, generally at their heads. Windows on different floors should not necessarily use axial alignments (i.e. attic windows, and smaller openings are not always centered above larger ones) to create a relaxed informality in the facade.

10 Generally vertical windows should be of proportions 1:3.5 - 1:4, for attic windows a width to height proportion of 1:1 - 3:1 is more suitable.

11 Windows can have extended privacy screens (see figure 32).

To create facades with Hejazi character, and to contribute to the public realm.

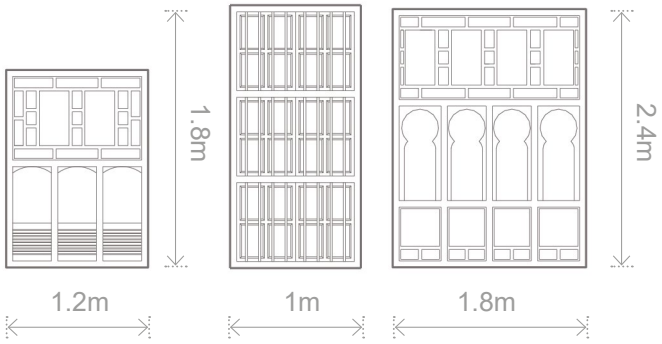


FIG. 37 Traditional window elements

FIG. 38 Transitional window elements

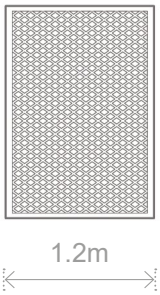


FIG. 39 Contemporary window elements

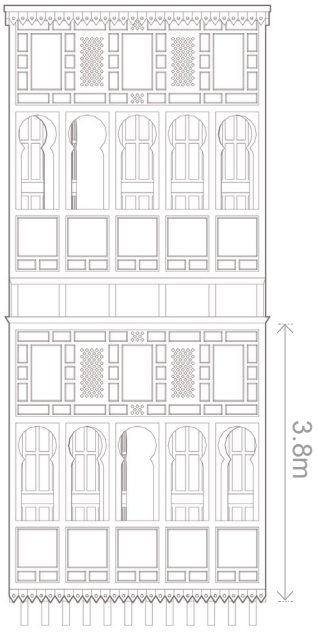


FIG. 40 Traditional roshan

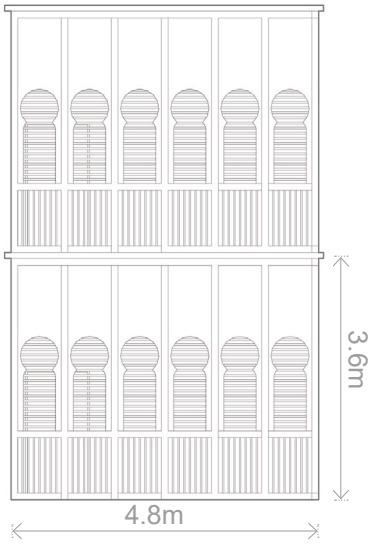


FIG. 41 Transitional roshan

3.3 Rooftop elements

Roof spaces are common on the Hejazi coast and provide extra private space that can be designed to take advantage of coastal airflow at night.

The roofscapes are characterized by inhabitation providing views out from multiple facades.

Elements of roofscape include:

1. Habitable roof spaces ranging from simple massing with terraces to elaborate al mabeet roof-top rooms.
2. Tall parapets; roof spaces are typically protected by high walls, sometimes with timber infill screens.
3. Corner articulation: buildings often hold the corner at roof level.
4. Crenelated terraces: facades extend flush to tall crenelated terraces that provide privacy between terraces and buildings.

To contribute to the rooftop character of Hejazi settlements.

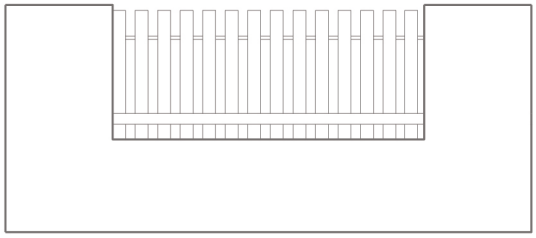


FIG. 42 Traditional parapet element

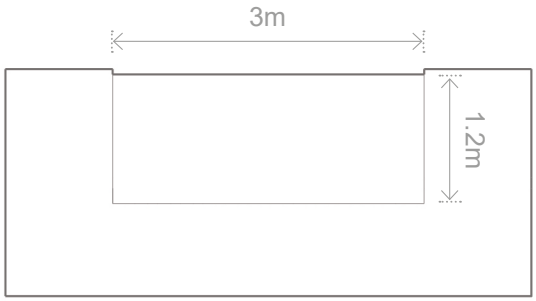


FIG. 43 Contemporary parapet

3.4 Arches

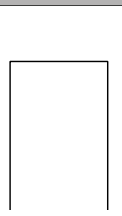
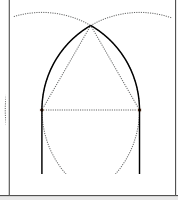
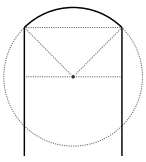
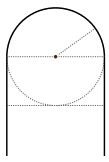
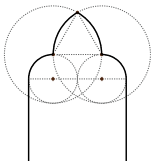
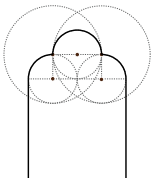
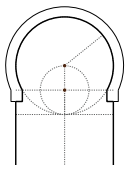
The table below shows the range of arch shapes and head of openings evident along the Hejazi Coast. The illustrations show center points and construction lines to create the correct geometries.

1 These shapes may be applied to interiors and exteriors, to door recesses, frames, windows, vent openings, parapets and window hoods.

2 When set into stone or masonry walls, these openings should function structurally, and be spaced appropriately to maintain the structural integrity of the building.

3 The frequency of each shape in major settlements within the area are indicated on the table.

To relate the design of arches and openings to the prevalent patterns of the area.

	FLAT (LINTEL)	THREE POINTED DEPRESSED ARCH	SEGMENTAL ARCH	ROUND ARCH	TREFOIL ARCH (POINTED)	TREFOIL ARCH (ROUNDED)	HORSESHOE ARCH
ILLUSTRATION (Showing center points of circles and construction lines, to aid use of the correct geometries)							
EXTENT OF APPLICATION							
Yanbu	**Extensive -** for all applications	Very Limited	Very Limited	Limited	Very Limited	Very Limited	Limited
Jeddah	**Extensive -** for all applications	Limited	Limited	Very Limited	Very Limited	n/a	n/a
TYPICAL APPLICATION	• Multiple applications • Windows, door frames, vent openings	• Focused applications • Door recesses • Rare use for Mosques/ High-Status buildings as ground level openings, niches	• Multiple applications • Parapets • Windows • Door frames	• Multiple applications • Ground floor passages and interiors • Door recesses and door frames • Rare use for windows	• Focused applications • Carved door hood recess, niches • Rare use for window hood recesses (Ribats)	• Focused applications • Carved door hood recess, niches	• Focused applications • Carved door hood recess, niches

TAB. 2 Table of arch types and wall openings.

4 Colors and materials

The prevalent materials used and color range found within the architecture of the Hejazi Coast character area.

Locally quarried coral ‘Mangabi’ was the main traditional building material, interspersed with timber ‘Taklilat’ horizontals providing tensile stability. However, due to the humid coastal air and the brittle coral stones, walls were protected by lime renders and plasters.

1 Relate to context, with the aim of creating visual and textural harmony.

2 Employ modest materials and details to be respectful of heritage assets and not compete with their significance.

3 Use traditional materials such as coral stone and wood.

4 Be sympathetic to its context and consider its surrounding while choosing colours.

5 Employ pale colours with sparingly used darker and brighter accent colours.

6 Prohibit the use of reflective, luminescent, or similar finishes.

7 Retaining the colour of the original material with others using white render to highlight decorative elements (for example, doors, roshans, and taglilat).

To respond to the environmental characteristics of the area.

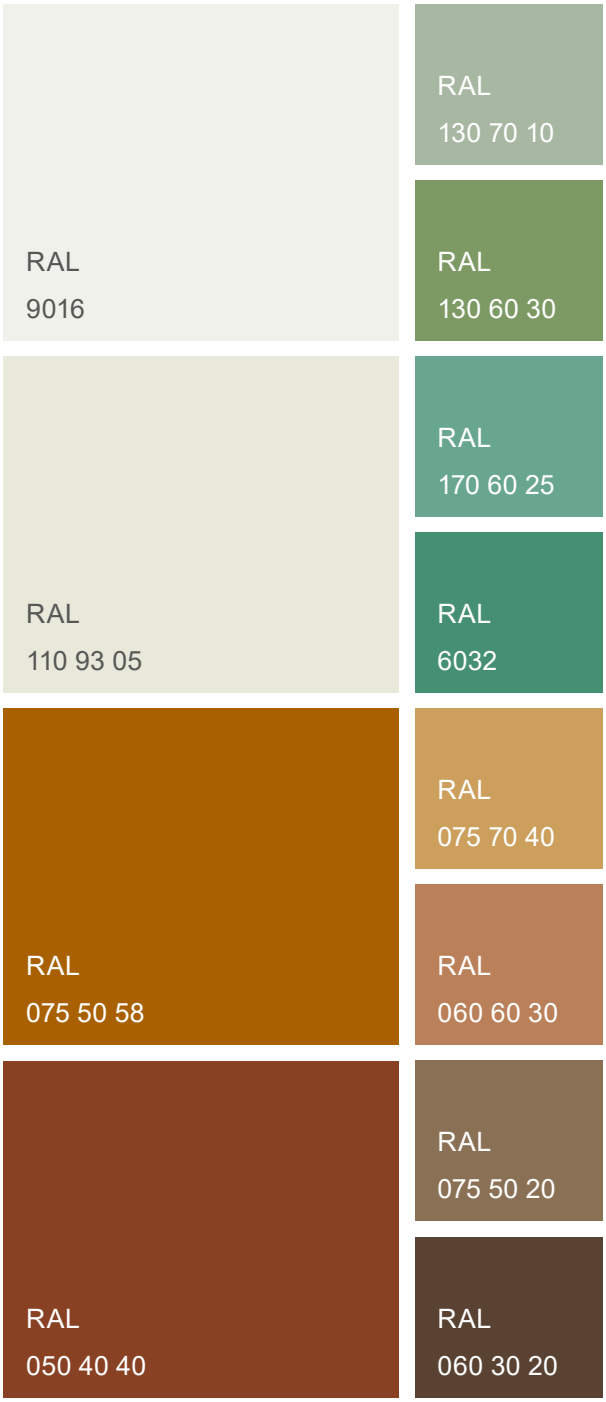
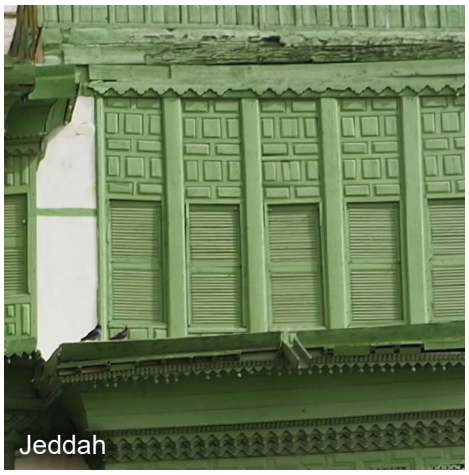
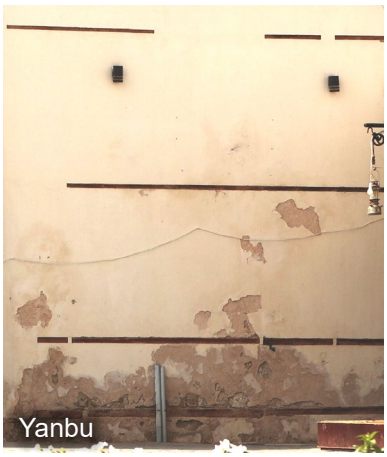
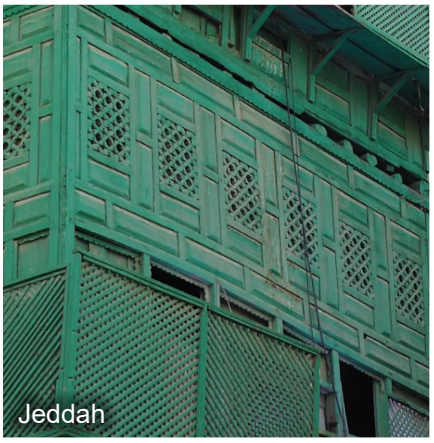


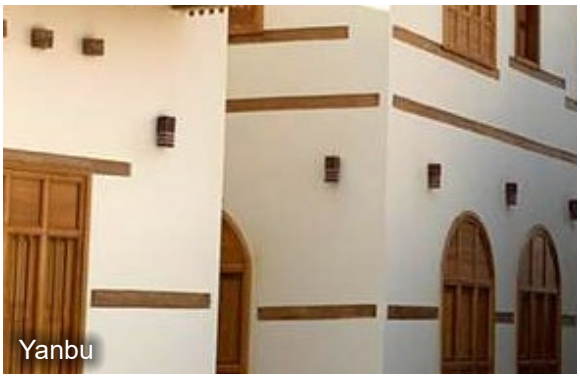
FIG. 44 RAL color palette

RAL codes are part of a universal color-matching system used to provide consistency in architectural finishes. It is recommended that teams verify colors with a physical fan deck. For more information visit www.ral-farben.de/en/









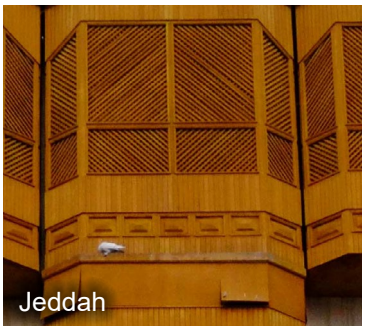


FIG.45 **COLORS AND MATERIALS**

5 Patterns

Common motifs and patterns used in the traditional craftsmanship and material culture of the Hejazi Coast character area.

The existing vernacular employs applied decorative patterns in a variety of media but is primarily limited to wood and render. Surface patterns are commonly used on entrances, windows, roshans, and arches. Patterns were traditionally used to reflect the region's diverse influences and to express manual craftsmanship. The ornamental pattern is frequently intricate, consisting of geometric shapes, floral combinations, and calligraphic patterns of Qur'anic verses or prayers. New buildings should play an active part in the transmission of the cultural legacy of Hejazi architecture. The quality of new development should merit its appreciation by future generations. The application of pattern for new buildings should:

1 Limit the pattern palette to local sources.

2 Create opportunity for traditional craft revival and aim to promote and evolve traditional construction methods.

3 Use patterns that are sympathetic and complimentary to their surroundings and context eg. geometric patterns and abstracted floral patterns.

4 Make use of patterns as decorative elements along roshans, roof terraces, entrances, and windows to provide privacy and interest.

5 Use similar patterns on all decorative elements for consistency.

6 Use locally available craftsmanship methods in production of new patterns.

To respond to the culture and craftsmanship of the area.

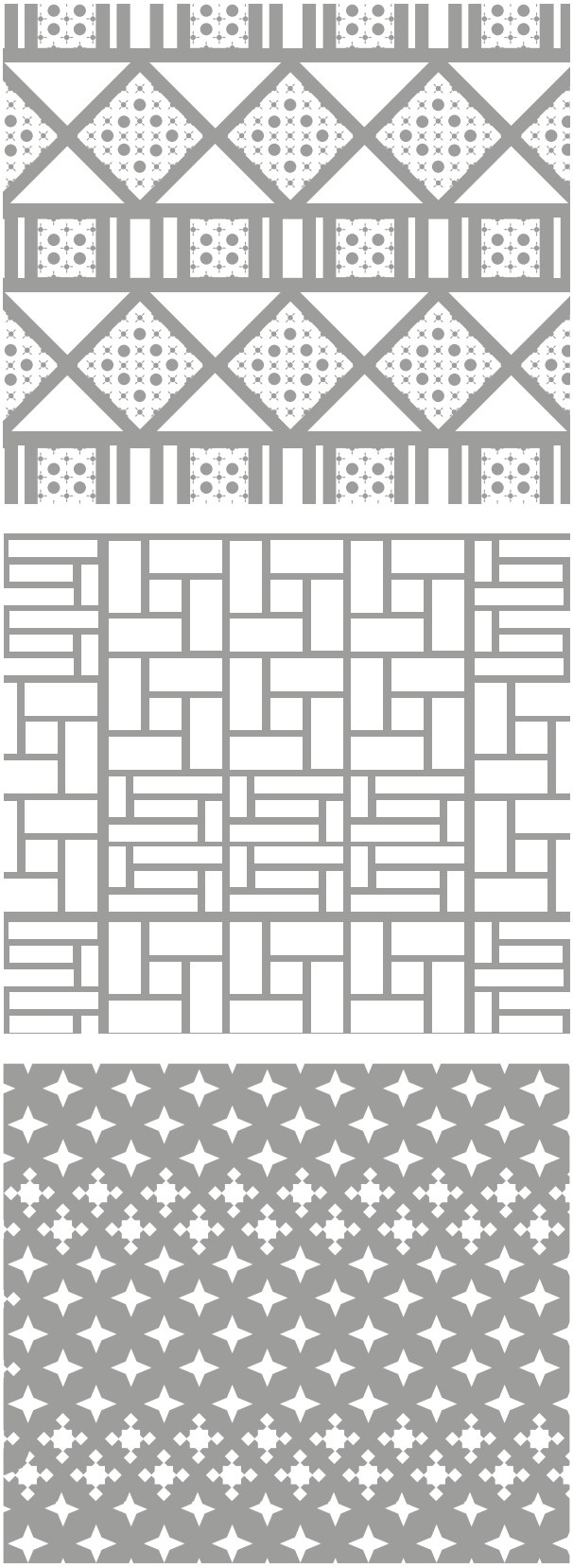
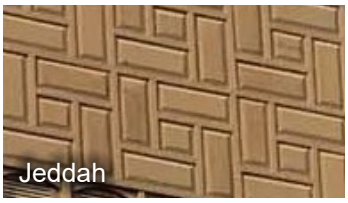
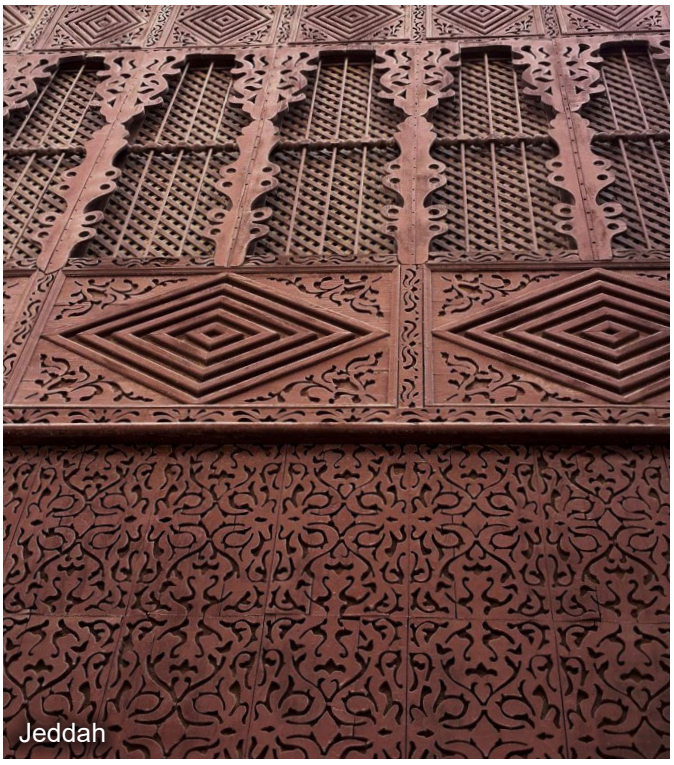
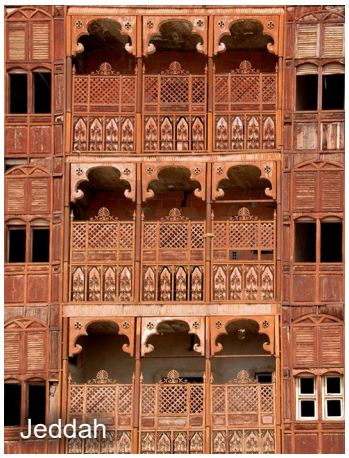


FIG. 46 Patterns abstraction







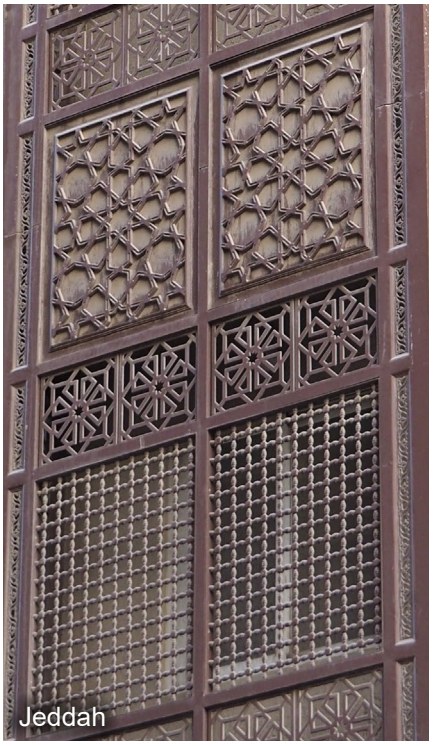


FIG.47 **PATTERNS**

6 Applying the architectural character

Guidance for the careful interpretation and application of architectural character to contemporary developments.

6.1 Interpretation

Good application of architectural character does not mean direct copying of historical examples. Their contemporary use should involve interpretation: a selective emphasis of characteristics to create meaning and beauty in its new context. Designers can selectively use formal characteristics such as:

- Color (hue, tonality, tint)
- Shape (figure, outline, 2-D geometry)
- Form (volume, 3-D geometry)
- Texture (physical surface quality)
- Line (verticals, horizontals, diagonals, zigzags, curves, dashes, etc.)
- Value (lightness to darkness)

Interpreted elements can be further transformed in the way they relate to one another. Designers can play with compositional rules such as:

- Balance (equality or harmony of parts)
- Contrast (difference of parts)
- Emphasis (strengthening of parts)
- Movement (change, directionality)
- Pattern (repetition, symmetry)
- Rhythm (even and uneven spacing)
- Unity/variety (degrees of variation)

Designing with architectural characters is an interpretive art, an effort to express the spirit and essence of the original architecture in new yet familiar ways.

To encourage contextually sensitive contemporary design.

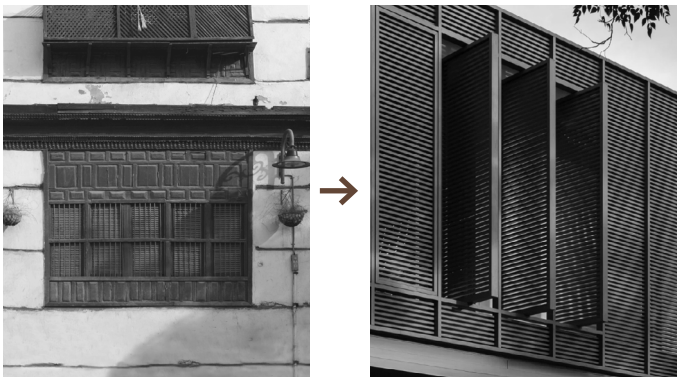


FIG. 48 Example of building material abstraction*

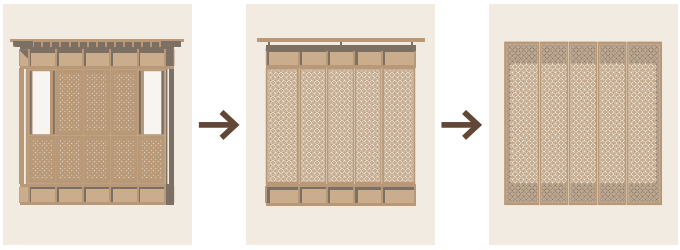


FIG. 50 Example of window shape abstraction*

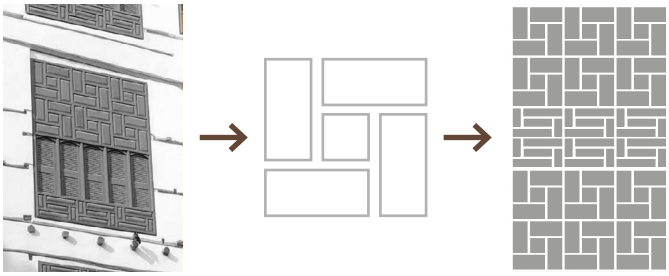


FIG. 49 Example of pattern abstraction*

*Note: Diagrams in this chapter are for explanation of design concepts only. The examples are taken from a variety of sources, and do not form part of the definition of the Hejazi Coast architectural character.

6.2 Scaling

Architectural characters often come from historical building types of a particular size. When applied to new developments of a dramatically different size, the original character can become distorted or repeated in a way where their quality and craftsmanship are reduced.

When applying architectural characters to new developments, designers should:

1 Be sensitive to the challenges of large project sizes. Break down building massing into smaller, more diverse and interesting massings that can better fit traditional elements of architectural character.

2 Observe the way elements are related to one another and to interior layouts in the source examples of architectural character.

3 Avoid mechanical repetition of elements without a clear design intention.

4 Respect the proportion, size and construction logic of the original architectural elements.

5 Do not scale and distort a small elements into oversized graphic features that ignore the principles behind the use of the original element.

6 Pay special attention to building elements visible from the public realm, especially at the ground floor. The closer the element is to the public, the greater the fidelity and quality it should be. Conversely, elements farther away from public view may be more highly abstracted.

To successfully apply elements of traditional architectural character to large contemporary buildings.

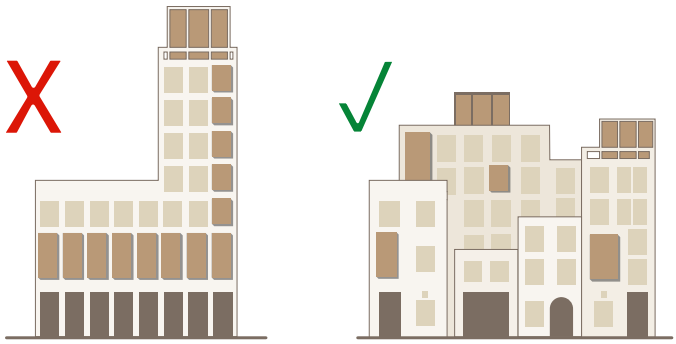


FIG. 51 Break down building massing to relate to traditional architectural elements *

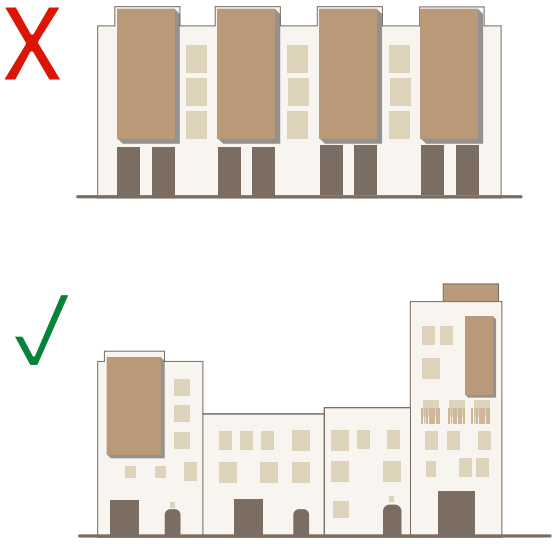


FIG. 52 Do not scale and distort smaller elements into oversized graphic features*

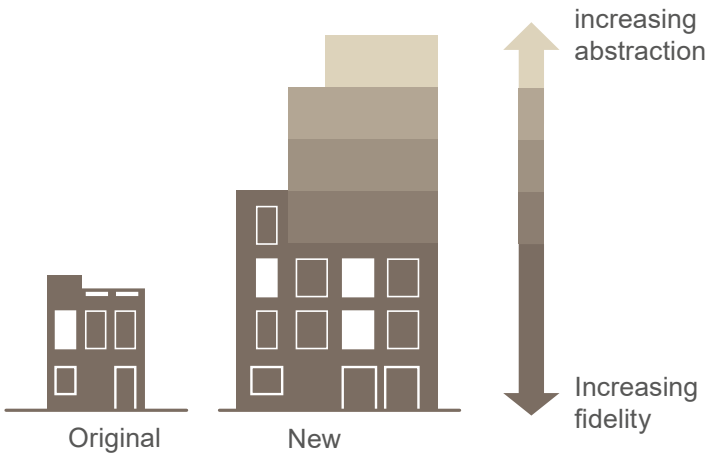


FIG. 53 Pay attention to building elements near the public realm, especially at the ground floor*

6.3 Functionality

Architectural elements should perform functionally like their traditional counterparts, and not be applied superficially like graphic signage.

1 Architectural elements should be purposeful, contributing to the climatic or technical performance of a building. (For example: shutters should be operable, providing shading and privacy.)

2 Architectural characters should not be applied in a superficially like wallpaper on an unrelated building form.

3 Architectural elements should not employ material fakery. (For example: the use of one material that pretends to be another.)

4 Ornamental architectural elements are permitted where they strengthen the character and improve the quality of the building.

To maintain the functionality of architectural elements.

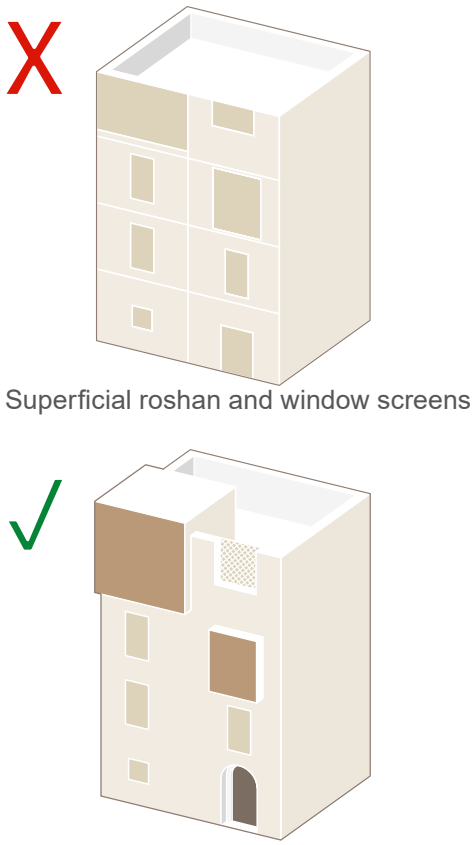


FIG. 55 Functional use of architectural elements*

6.4 Adaptation

The application of traditional architectural characters to new building types requires sensitive adaptation.

1 Precious materials from the original may need to be substituted with suitable replacements.

2 Some architectural elements may need to be adapted for new building systems or methods of construction.

3 Some new building systems may clash with an architectural character, and should be avoided (for example: large space frames, spider-joint glazing, and large areas of curtain wall).

To apply architectural character through contemporary means.

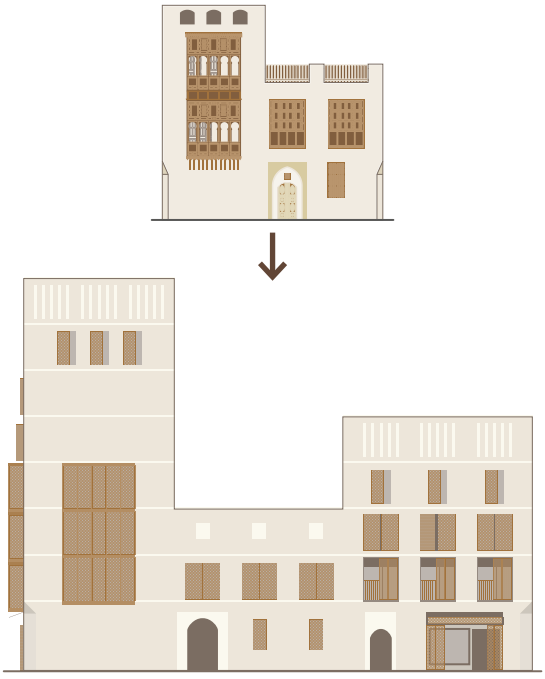


FIG. 54 Adaptation of traditional architectural elements to a contemporary building*

*Note: Diagrams in this chapter are for explanation of design concepts only. The examples are taken from a variety of sources, and do not form part of the definition of the Hejazi Coast architectural character.

6.5 Mixing

Architectural characters are part of living cultures that continually grow and change. The boundaries defining architectural character areas should be understood as provisional, open to influences from all around, rather than as fixed borders. This invites the possibility of styles and character strengths mixing together, particularly in peripheral sites far from the core of the character areas.

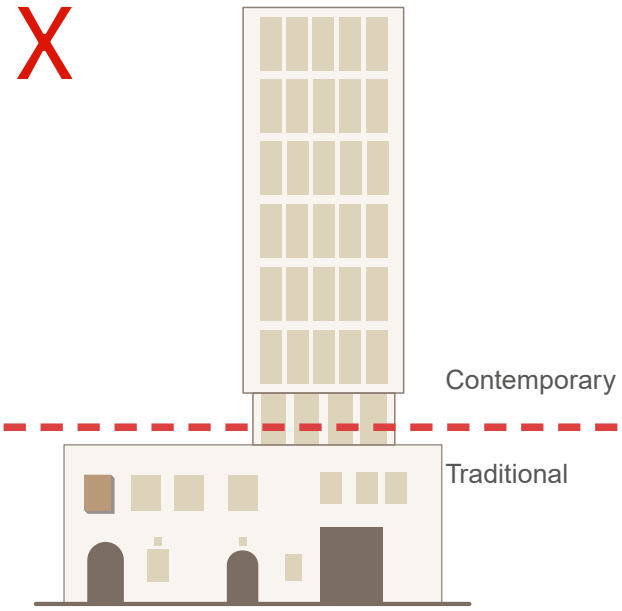
1 In large scale projects, when the project site is located at the edge of two or more characters, the adjacent character can influence the project by mixing the characters in different buildings, while prioritizing one above the other based on an analysis of the local context.

2 Avoid mixing more than one character within a single building; instead, the mixing should occur across different buildings depending on their location within the project and their functional use.

3 When mixing characters, the permitted style (traditional, transitional, or contemporary) should be taken into consideration based on the specified level.

4 Exercise informed creativity. Do not slavishly copy architectural characters..

To propose a clear method for the mixing and blending of architectural characters in large scale projects.



Do not create hard breaks between mixed sources*

Create gradual transitions between mixed sources and strengths of character application*

FIG. 56 Appropriate mixing of sources

7 Worked examples

A set of design studies illustrating the application of the Hejazi Coast character to buildings, at different strengths and scales.

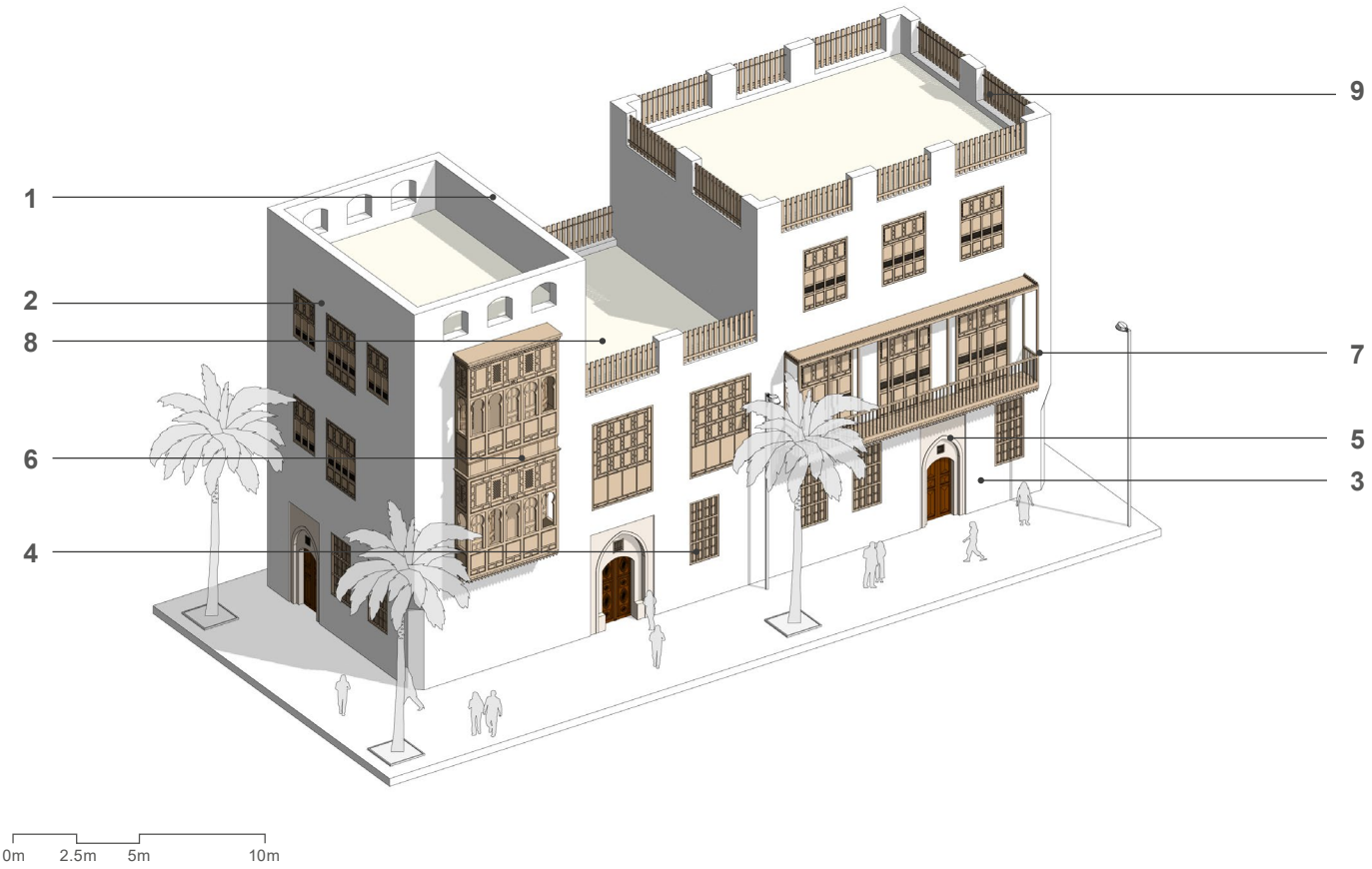


FIG. 57 Medium size building

7.1 Traditional

These composition guidelines are applied to create a ‘full strength’ traditional character to new buildings. They should not be adhered to rigidly but rather used as examples of ways in which features and elements are applied to guidelines.

The following guidance covers both medium and large size buildings.

1 Stepped, rectangular building forms.

2 Facades with localized symmetries and alignments between upper and lower floor windows.

3 Solid, pale colored walls with some expressed coral stone.

4 Individual simple, rectangular window openings, shuttered for shading and internal comfort.

FIG. 58 Large size building

5 External arches in panels above doorways.

6 Double and single height timber roshans with arched motifs.

7 Balcony structures in timber of varying sizes.

8 Roof occupation present for spillover space.

9 Horizontal and crenelated roof parapets often with infilled timber screens.

To create a strong connection and celebration of the Hejazi Coast architecture.

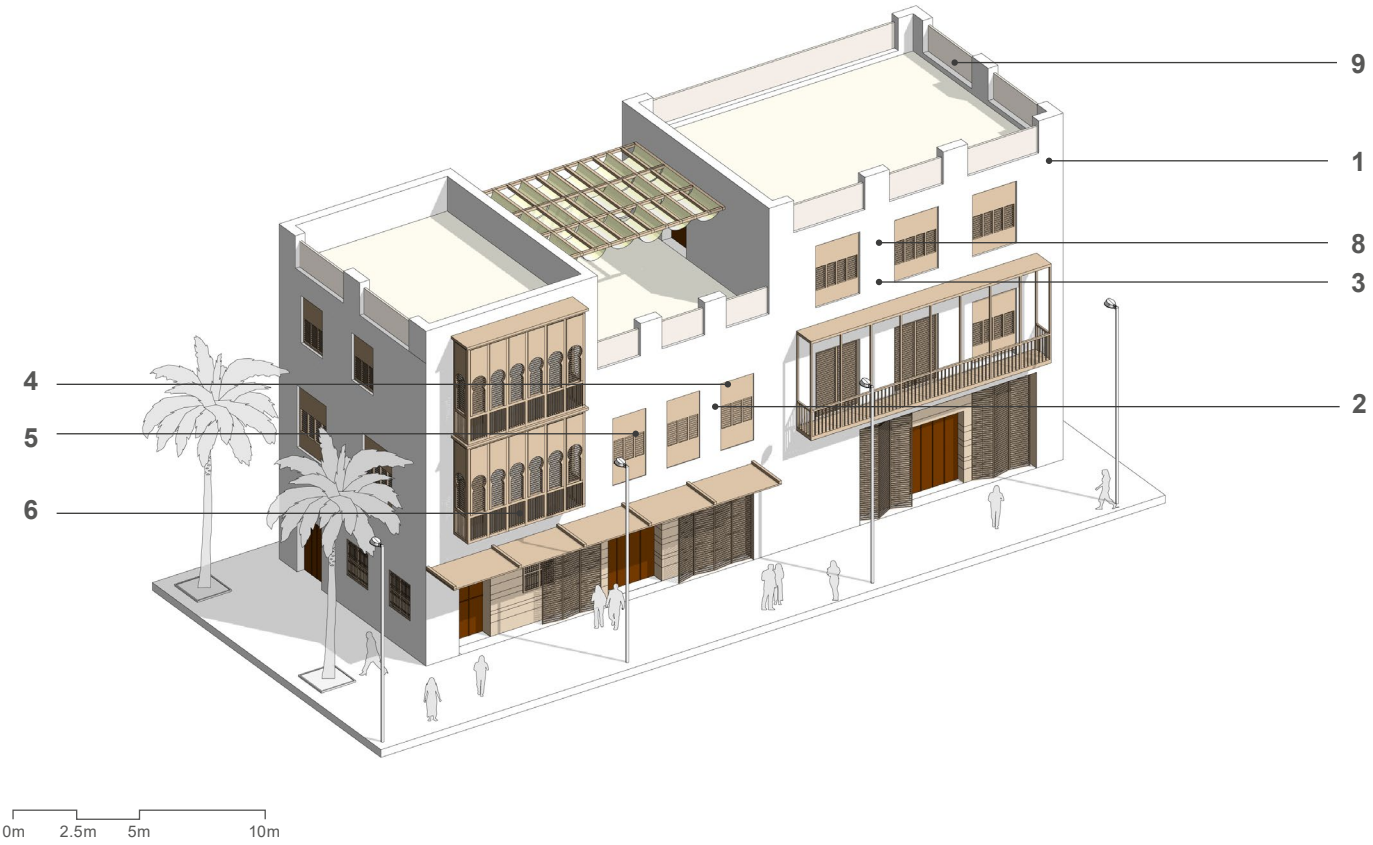


FIG. 59 Medium size building

7.2 Transitional

These composition guidelines create a ‘medium strength’ transitional character to new buildings.

The transitional model ensures buildings conform to modern regulations with regard to energy, safety and other building standards. Building forms and expressions adapt the traditional model to reflect changes in construction methods as well as the availability of skills and materials. The result should update functions to modern ways of living and working and yet meld comfortably with the historical context.

1 Simple, rectangular building forms.

2 Facades with localized symmetries and alignments between upper and lower floor windows.

3 Solid pale walls in either stone or render with other materials being sensitively deployed.

4 Expressed lintels and integration of ventilation related to windows and doors.

FIG. 60 Large size building

5 Individual or grouped simple, rectangular window openings.

6 Double and single height timber roshans with arched motifs.

7 External arches or other articulation in panels above doorways and in other decoration.

8 Horizontal banding to tie building together and emphasize layering.

9 Stepped parapets accommodating roof occupation.

To ensure that transitional buildings create a clear continuity between traditional and contemporary forms.

FIG. 61 Medium size building

7.3 Contemporary

These composition Guidelines create a ‘light strength’ contemporary character to a new building.

The transition to the contemporary model ensures buildings conform to modern regulations with regard to energy, safety and other building standards. This is relevant to all new buildings but should be carefully controlled in the contemporary model. Building forms and expressions reflect changes in construction methods and availability of skills and materials. The result should update functions to modern ways of living and working.

1 Overall form should follow similar proportions of traditional buildings with taller buildings sensitively extruding traditional forms.

2 Wall to opening ratio to retain original proportions with potential for adjustments with the integration of screens and panels.

3 Symmetries, where present, to be adhered to with localized inflections to avoid strict replication of historic facade treatment.

4 Windows and doors translated into abstracted versions of original forms within overall ratios.

FIG. 62 Large size building

5 Ground floor to provide increased interaction with the street.

6 Screen and projections employed in abstracted forms, retaining principle of function (privacy/ventilation /shading).

7 Decorative elements to recall original patterns and colors (eg arches) and coloration.

8 Rooftop inhabitation encouraged, with shaded terraces and concealed plant areas incorporated.

To create opportunities for simple, attractive design solutions which celebrate the essential characteristics of the area, and respond to changing ways of living and working.

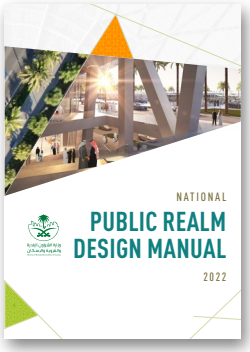
8 Public realm

An overview of public realm character in Hejazi Coast.

8.1 Overview

The focus of the public realm guidelines within this document is to strengthen local character by identifying and enhancing distinct characteristics of public realm in Hejazi Coast. It is meant to provide high-level principles and recommendations to be further developed in masterplans and public realm strategies within the character area.

These guidelines are not intended to be a comprehensive technical resource. For this the designer should consult the National Public Realm Design Manual prepared by the Ministry of Municipal and Rural Affairs and Housing, and support the five key principles identified in it.



1 Human scale

2 Pedestrian mobility

3 Sustainability

4 Culture and heritage

5 Visual appeal

FIG. 63 National Public Realm Design Manual and its five key principles.

This chapter is organized as follows:

- **General character -** a narrative summary and photographic overview of characteristic public realm found in the character area.
- **Types of public space -** A selection of spatial types that provide the character area distinctive character.
- **Materials -** A summary of hardscape character for the character area.
- **Planting -** A summary of softscape character for the character area.
- **Street furniture -** Suggestions and precedents for suitable street furniture.
- **Lighting -** High-level lighting principles for the enhancement of the public realm.
- **Signage -** High-level signage principles for the enhancement of the public realm.
- **Parking -** High-level parking design principles for enhancement of the public realm.
- **Worked examples -** Visualizations that illustrate the combined intentions of the public realm guidelines.

Together the sections above aim to give a broad overview of public realm that will reinforce the character of Hejazi Coast.

8.2 General character

The adjacent photographs summarize the typical characteristics of public realm and local landscape in the Hejazi Coast. The public realm is mainly functional, particularly in places such as Jeddah with a direct relationship to the transient nature of the population. Open space is in the form of baraha with little greenery. Trees and planting is functional, loosely arranged and related to movement and resting places.

FIG.64 **PUBLIC REALM**

8.3 Types of public space

Hejazi Coast's public realm is characterized by a hierarchy of typical streets and spaces. These typologies are distinguished by their scale, character, and relationship with predominant land uses.

Together, these spaces create a diverse public realm which caters for residents and visitors alike, and contributes to the distinct character of Hejazi Coast.

The plan illustrates a typical hierarchy of urban spaces and streets in the region. The following spaces are considered to be the principal typologies:

- Zuqaq: Local alleys of varying width and footfall which connect spaces and streets across settlements.
- Baraha: Medium sized spaces considered as the center of a community.
- Souq: The heart of trading activities arranged as linear streets across settlements.
- Promenades: elevated pathways offering unobstructed views out to sea.

Specific areas might include additional variations in these typologies, reflecting local scale, character and use. Parks and recreation areas should also be provided.

FIG. 65 Typical urban plan

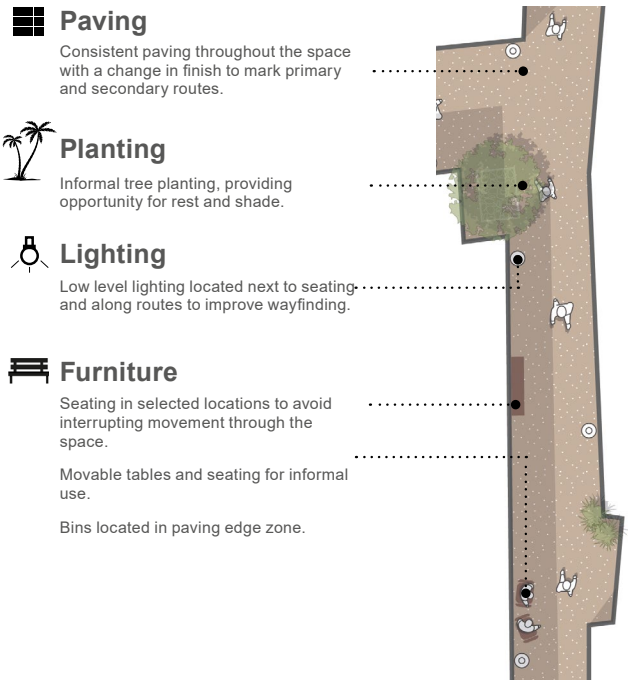


FIG. 66 Zuqaq

Historically, Zuqaq's have no clear direction and narrow and widen according to the location of the flanking buildings.

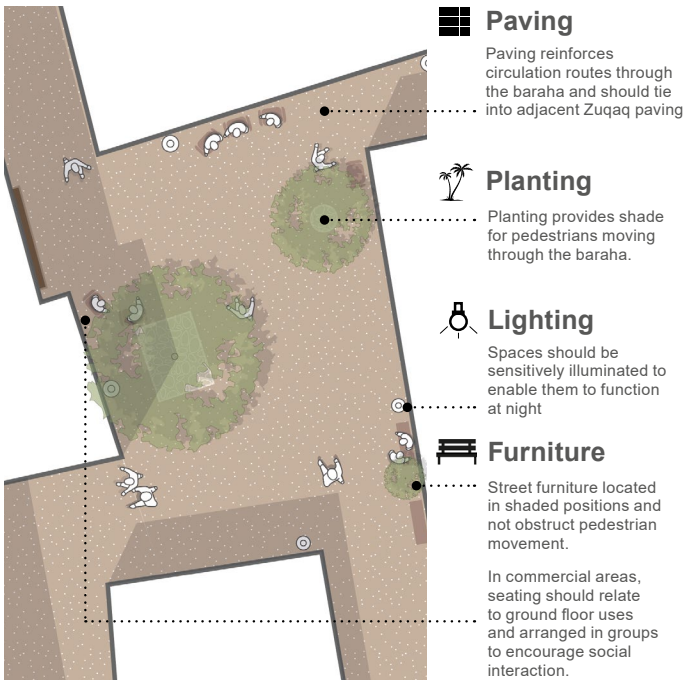


FIG. 68 Baraha

Baraha's are hubs for social activity and are central to neighborhood community. They have a strong sense of frontality in both residential and community areas.

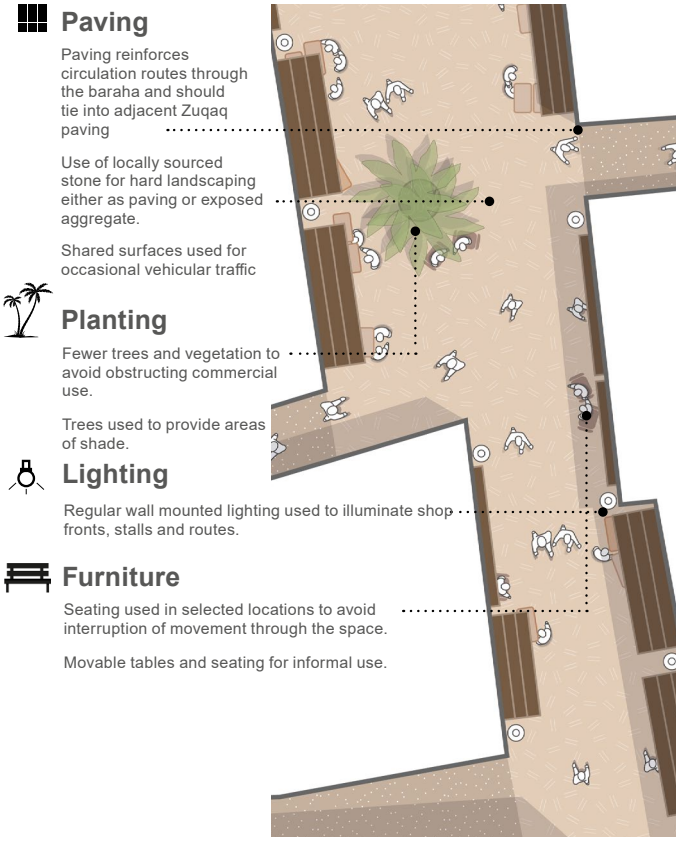


FIG. 67 Souq

Souq's are predominantly retail streets and have historically been at the heart of trading activities, connecting trade with the seafront. They have a consistent rhythm and typological form.

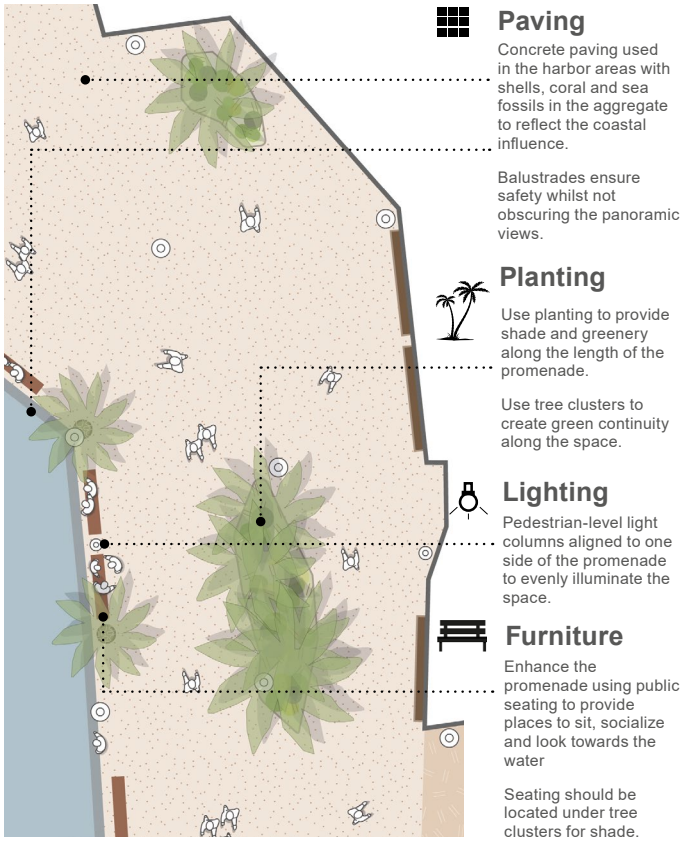


FIG. 69 Promenade

Promenades are wide pedestrian spaces and offer a place for people to gather, socialise and enjoy the seafront.

8.4 Materials

The materials palette for Hejazi Coast has been designed to be simple and sensitive to the existing character of the area.

Key considerations

1. Select locally sourced Saudi materials with low embodied carbon and high content of reused or recycling aggregates (for non-natural materials).
2. Areas with higher footfall should have higher specification and materials that are durable, minimizing the need for regular repair and replacement.
3. Re-use materials, where possible formed from waste material.
4. Where possible, deliver materials using sustainable means of transport.
5. Select materials that have longevity and that can be easily cleaned, repaired and sourced with high-quality materials replaced like for like.
6. De-pave where possible to improve the microclimate and use sands or aggregates in place of paving.
7. Materials should provide varying textures within a simple color palette to complement the area's character.
8. Employ subtle changes to paving to highlight difference between typologies.
9. Make good existing streetscapes and ensure materials are replaced only when necessary to minimize carbon footprint.
10. Use larger paving format to emphasize more prominent routes.
11. Consider incorporating special patterns to emphasize important spaces.

FIG. 70 Public realm material references

8.5 Planting

Tree planting should complement the overall character of the Hejazi Coast area, helping to shape places and enable planting through sustainable means.

Key considerations

1 Water must:

- Be considered carefully, responding to the local microclimate, water availability and landscape character.
- Use drought tolerant and water sensitive species.
- Consider salinity tolerance in low lying areas.

2 Trees should:

- Adopt an informal layout, avoiding overly linear or formal planting.
- Only be planted where shade can be best utilized or where shade is necessary to encourage the use of public realm.
- Make a characterful contribution to the quality of routes and spaces. Consideration should be given to how a tree is seen and how trees can be used as wayfinding markers.

3 Planting should:

- Be relatively limited within the urban area, mainly in baraha areas.
- Contribute to maintaining and enhancing oasis areas, using multi-layered planting where appropriate comprising a variety of palm species, fruit trees and fodder grasses.
- Consider additional habitat value such as fruits for birds.
- Understory and decorative planting should be minimized. If necessary, it should be functional e.g. herbs or edible.
- Have a palette which aims to use both native plants and those that have locally adapted.

Shade trees


Albizia Lebbeck


Hyphaene Thebaica


Prosopis Cineraria


Ficus Retusa Nitida

Shrubs


Caesalpinia Pulcherrima


Lantana Camara (Verbena)

Hedging


Duranta Repens


Duranta Repens

Climber


Antigonon Leptopus Corallita

Succulents


Agave Angustifolia

FIG. 71 Planting references

8.6 Street furniture

Street furniture should be carefully selected to provide continuity and co-ordination, limiting clutter. Colors and styles of furniture should blend into the context rather than stand out as features. In general, the design of street furniture should find opportunities to use local materials, respond to the local landscape and cultural heritage and celebrate local craft skills.

Key considerations

Furniture should:

1. Be distributed evenly across all areas.
2. Not obstruct pedestrian movement or clutter public open spaces.
3. Consider color and material consistency.
4. Be minimal in the public realm as was traditionally the case and potentially movable.
5. Feel ephemeral and informal, acknowledging the historic condition of street furniture in the region.
6. Give consideration to accessibility with seating distributed at suitable intervals and have suitable heights and backs or armrests to improve accessibility.
7. Be of high quality, coherent, and rationalized to minimize street clutter.
8. Have a coordinated appearance, with a consistent material and color palette to complement the character of the region.
9. Avoid duplication by rationalizing and combining elements.
10. Be easily maintained and repaired with replaceable components.
11. Where existing furniture has heritage value, be retained and improved.

FIG. 72 Street furniture references

8.7 Lighting

A coordinated lighting strategy should create an appropriate and distinctive atmosphere for different areas to reinforce Hejazi Coast's sense of character. Lighting should not be distracting, the focus should always be on the setting, quality of the space and buildings.

Key considerations

1 Light levels should be kept as low as possible to minimize light pollution and adverse effects on ecology and habitats.

2 Utilize lighting to increase overall safety and enjoyment at night.

3 Provide lighting and light levels that are appropriate to patterns of use, character, and context

4 Utilize lighting temperature to reinforce difference between routes and to define contrast between character areas.

5 Sensitively highlight historic buildings, mosques and public buildings after dark, subtly revealing their architecture without over-use of light.

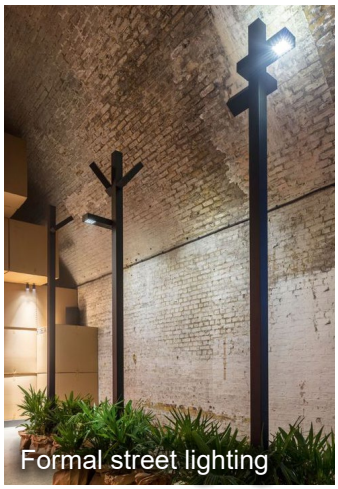
6 Utilize lighting that is appropriate to scale and context of routes and spaces e.g. lower mounted lights on smaller lanes and in historic conditions to highlight textures.

7 Utilize contemporary lighting elements which are low energy, low heat, and dust resistant with a long life expectancy.

8 Manage private light spill, light pollution or trespass - particularly over-lighting of shopfronts on souqs and streets - producing diffuse, soft and warm light.

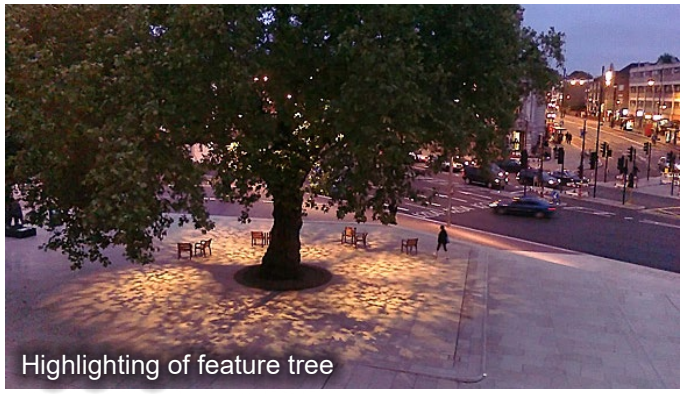
9 Design of lighting fixtures should be authentic to the area - simple, sensitive to the setting, not historically pastiche or using imported historic forms.

10 Introduce a lighting control system that allows variable light levels at different times of evening and night to save energy wherever possible.


Formal street lighting


Feature lighting


Warm ambient lighting


Highlighting of feature tree


Up-lit trees

FIG. 73 Lighting references

8.8 Signage

Signage should play a vital role in supporting good wayfinding across settlements in Hejazi Coast. An appropriate signage strategy will contribute to a positive experience of navigating streets and spaces.

General considerations for signage are set out below:

1. Establish an appropriate distribution of signage based on analysis of the hierarchy of routes, and location of destinations or key buildings. Focus the position of signage where it is most suitable, for example between key destinations or at important intersections.
2. Use visual markers such as locally appropriate planting, paving, lighting and frontages to enable intuitive wayfinding.
3. Embrace signage design which is bespoke and complementary to the character of Hejazi Coast.
4. Avoid large totems, signposts and obstructive signage that detracts from the public realm appearance.
5. Adopt a light touch approach to signage which aligns with the scale of routes and spaces. For example, signage could be wall-mounted, in paving or mounted on sensitively designed light columns.
6. Ensure that the approach to materials, font, color and size of signs is sensitive and appropriate to the local context.
7. Ensure signage and wayfinding are accessible and intuitive to all people including those with visual impairment and of different languages, through innovative use of symbols, color and texture.

FIG. 74 Sensitive integration of street signage

8.9 Parking

The approach to parking is a key component in the overall approach to the public realm. The appropriate location and design of parking has the potential to enhance the experience of moving across for streets and spaces for people.

General considerations for parking are set out below:

1 The design of streets and spaces should seek to prioritize the experience of people movement. In general, efforts should be made to find more space for pedestrians, avoid obstructive parking locations, integrate pedestrian crossings in suitable locations and manage traffic speeds.

2 The position of parking should enable the provision of greater space for pedestrians in shadier areas. On-street parking should be rationalized, with the incorporation of appropriate surface treatment of parking to achieve an increased footway width.

3 Tree planting should be integrated between bays to create greener streets.

4 Access to parking areas should be considered at the outset of the public realm design process.

5 Where appropriate, spaces that are currently dominated by car parking could be re-imagined as public spaces by relocating parking underground. Alternatively, some parking might be reduced alongside improvements to walking, cycling or public transport, or relocated to the edge of central destinations.

6 Access to smaller spaces or streets should be restricted to local private vehicles access

7 Local businesses to agree the timing of servicing to minimize the impact on areas with high pedestrian footfall.

8 Parking bays should adopt a surface treatment which is suitable to the local area and scale of the street or space.

9 In larger accessible spaces where unlawful parking is a concern, limited use of bollards should be considered.

10 Cycle parking should be carefully integrated to the public realm and be positioned at local destinations including shops, souks, mosques or transport hubs.

11 Cycle parking should respond to the width of streets. On narrower streets, parking should be parallel to the curb edge and on wider streets, stands can be perpendicular to the curb.

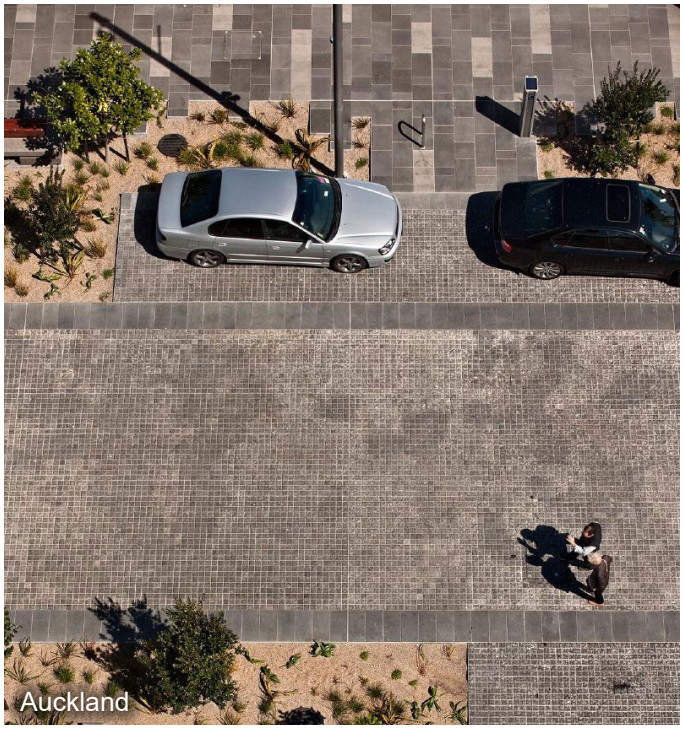


FIG. 75 Well-integrated parking bays

8.10 Public realm worked examples

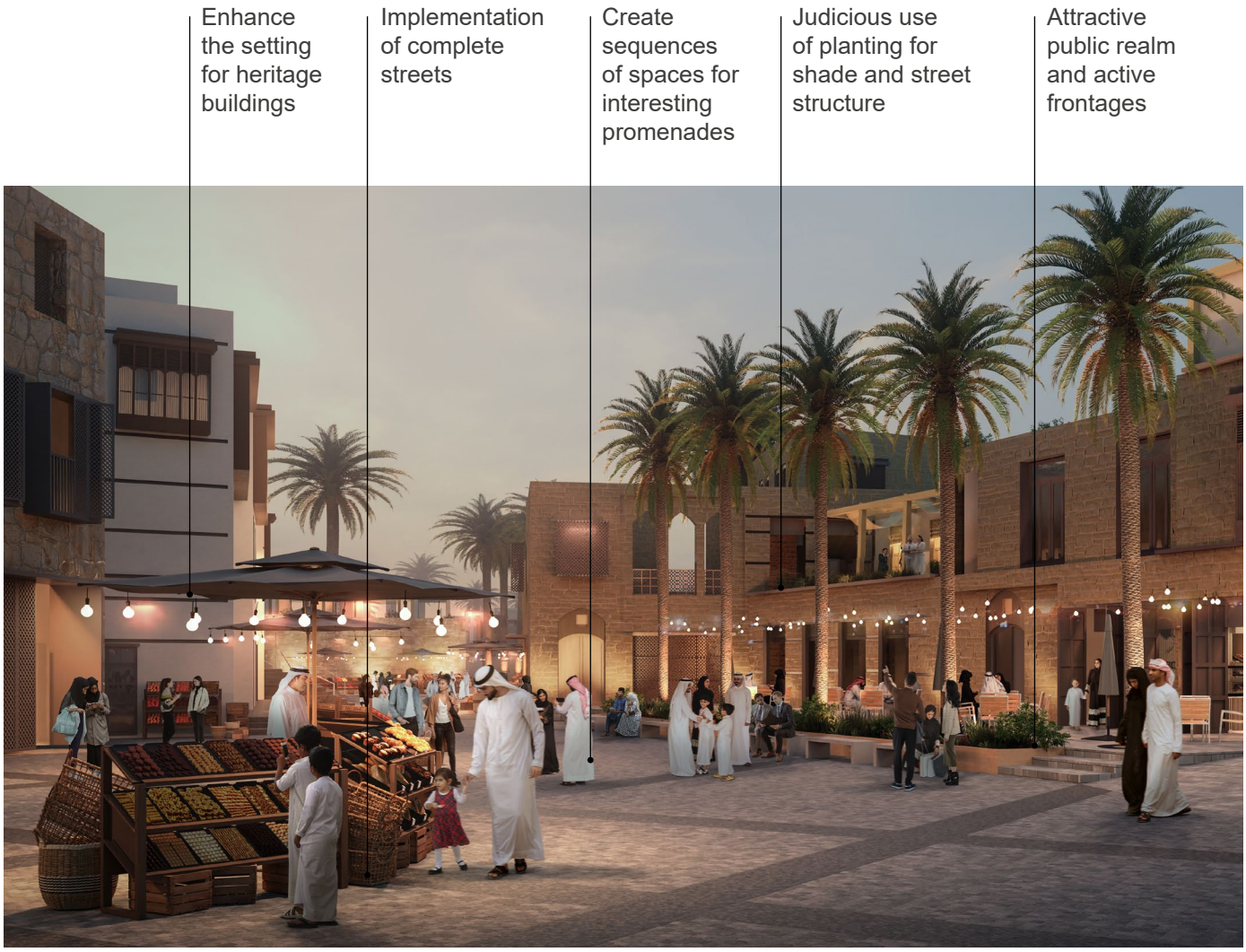


FIG. 76 View of Proposed market street in Yanbu

The worked public realm examples above illustrate typical spaces in Hejazi Coast. The illustrations seek to demonstrate the application of some of the main public realm principles. Specific opportunities and features are annotated on the images above.

Proposals for key spaces and streets should prioritize the following public realm moves:

1 Create spaces which celebrate Hejazi Coast's setting, with views and connections to the water.

2 Strengthen streets and spaces which re-connect key buildings and destinations.

3 Create high-quality streets and spaces which enhance the setting of buildings with a hierarchy of spaces related to the status of buildings they face.

4 Create of well-ordered streets and generous spaces for pedestrians.

5 Develop a pedestrian friendly, walkable environment.

6 Establish a comfortable experience for residents and visitors, as part of a vibrant urban setting.

7 Reinforce a clear hierarchy of streets and spaces as part of a local network.

8 Use traditional local materials.

FIG. 77 View of Proposed local street in Yanbu

9 Create a range of scales of space, including larger public spaces, smaller neighborhood squares and tighter, well-shaded streets.

10 Adopt an integrated approach to the provision of street trees, planting and drainage features to create shade, and establish green, resilient places.

11 Adopt a coherent approach to the activation of key streets and spaces, identifying suitable locations for retail and leisure.

12 Embrace opportunities for public art to enliven space.

13 Employ careful application of architectural guidelines to create places with a suitable scale, and appropriate character.

14 Find opportunities to reinforce or create legible streets and wayfinding.

15 Use the arrangement of space and buildings to create enticing glimpses, and longer views or vistas to key landscape features, civic or religious buildings as appropriate.

To create a welcoming, comfortable and walkable network of streets and spaces

Figure list