

Inner Madinah

Architectural Design Guidelines





FIG.1 INNER MADINAH ARCHITECTURAL CHARACTER AREA

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FIG. 2 Prophet's Mosque

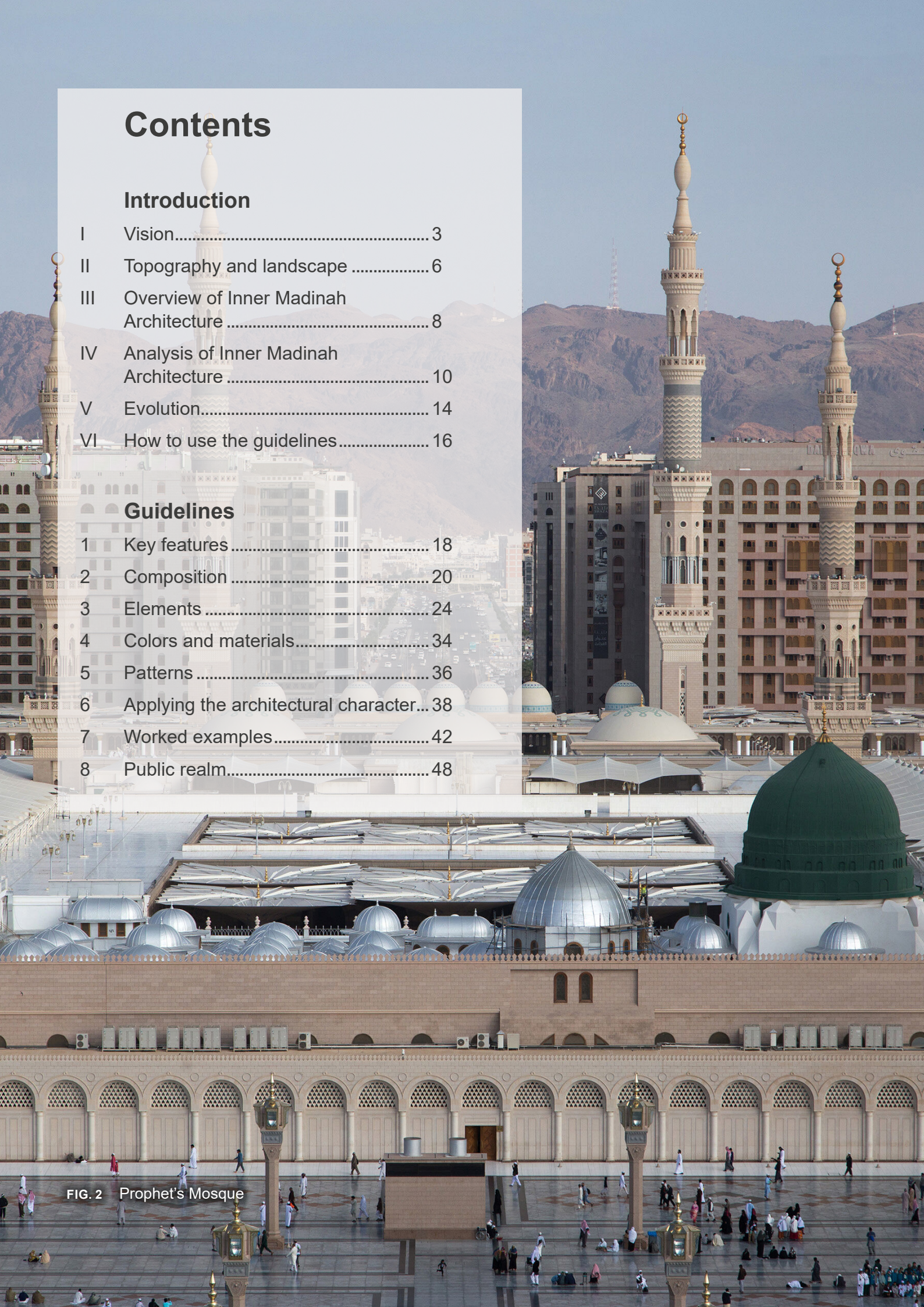




FIG.3 ARCHITECTURAL CHARACTERS MAP OF KSA

INTRODUCTION

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.

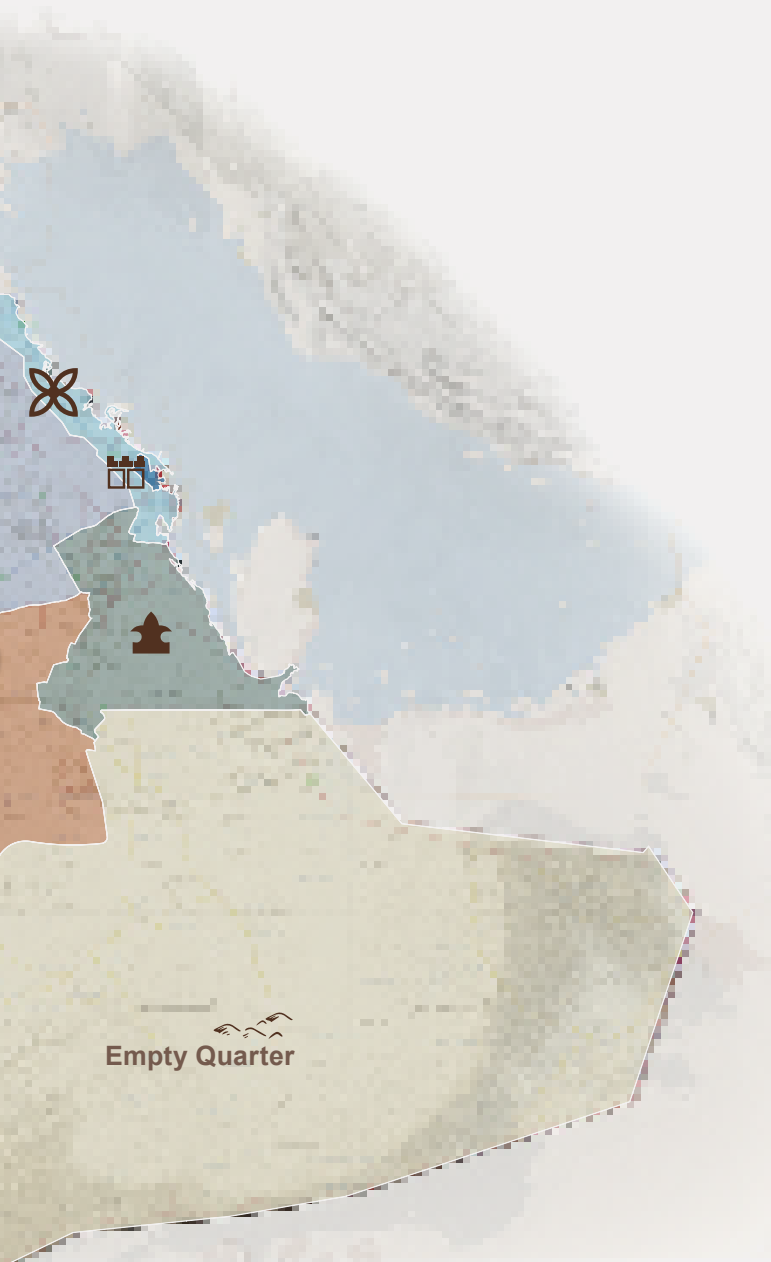
Its propositions are based on the study of historical precedent, taking inspiration from vernacular forms and the embedded knowledge shaped by generations of practice and experience.

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



I.3 **Inner Madinah**

Madinah is the second holiest city in Islam, and guidance for this area draws on the special religious, cultural and heritage value of the central part of the city. Situated approximately 180 km from the Red Sea and 450 km north of Makkah, Madinah is located on a flat mountain plateau within the Hejaz mountain range, at an elevation of 625 m.

The guidance draws on the essence of a small number of key examples. The principal settlement is Al-Madinah Al-Munawwarah (Madinah), particularly the historic central part of the city. In addition, occasional reference is made to Badr and Al Ais, two smaller but significant settlements in Al Madinah Province.

Madinah occupies a fertile space at the confluence of three valleys - Wadi al 'Aql, Wadi al 'Aqiq, and Wadi al Himdh. In that context, Madinah benefits from a green character, in contrast to the dry conditions of the surrounding mountainous harrat.

The city is relatively compact, defined by Al-Masjid an-Nabawi (Prophet's Mosque) at the center, and a series of neighborhoods nestled on the plateau and bounded by the surrounding Hejaz mountains. In some cases, neighborhoods are woven into valleys between outcrops which interrupt the flat topography of the plateau, notably Uhud Mountain to the north.

Badr is a town located 130 km south-west of Madinah, the location of the Battle of Badr in 624 CE. It is situated at the edge of the Hejaz Mountains, with desert to the west. Al-Ais is a village situated on flatter ground within the Hejaz mountains approximately 165 km north-west from Madinah.

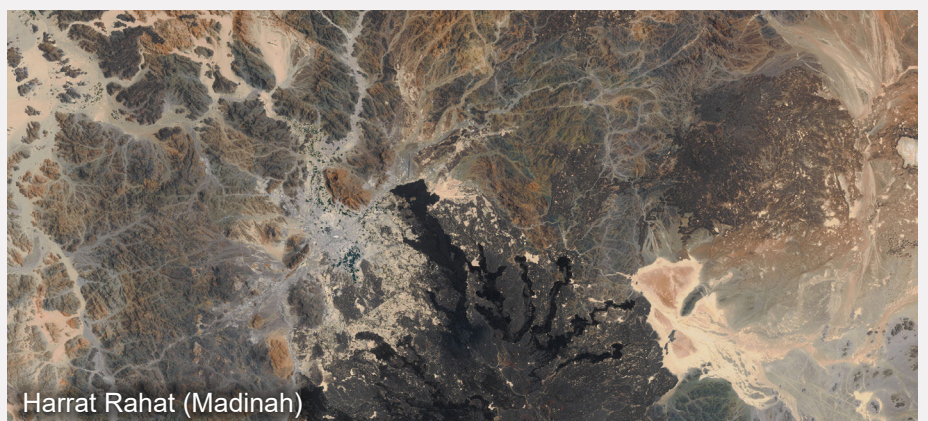
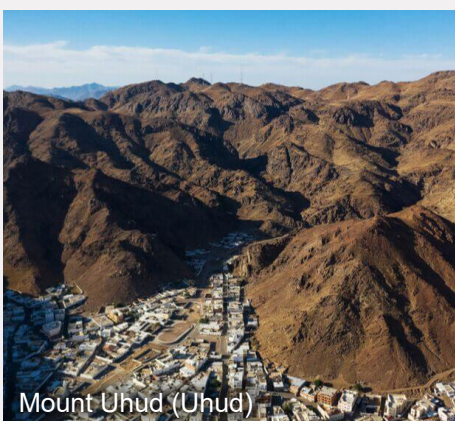
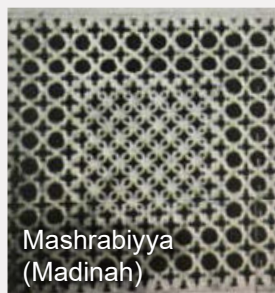
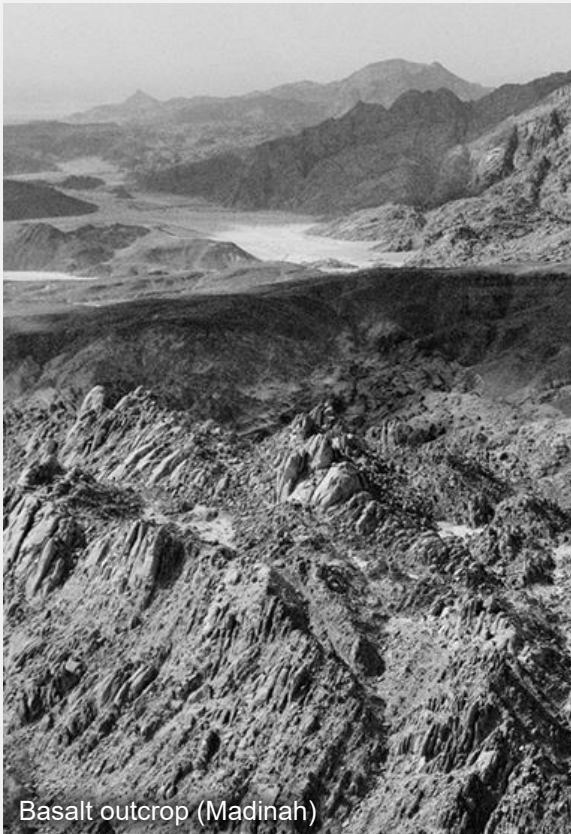


FIG.4 INNER MADINAH SOURCES OF CHARACTER

II Topography and landscape

Observations on the links between landscape, climate, culture and the architectural character of Inner Madinah.

II.1 Landscape

The Madinah region has a distinctive character, with much of the area occupied by the Hejaz mountain range. Madinah itself is situated at 625 m on a flat plateau area, surrounded by the mountainous harrat landscape, 250 km east of the Red Sea. Several mountains surround the city including Salaa (northwest), Al-E'er (north), and Al-Hujaj (west). The plateau, approximately 700 square km is defined by the intersection of three valleys of Al-Aquiq, Al-Himdh and Al-Aql. The area's geology is dominated by basalt, an igneous rock formed by the cooling of volcanic lava flows.

II.2 Climate

Inner Madinah is characterized by a hot, continental climate with summer temperatures typically 36 to 46 degrees Celsius, and winter temperatures between 15 and 20 degrees Celsius. Average annual precipitation is approximately 60 mm, with the greatest amount of rain typically occurring in November, December, and January to May. The summer months tend to be extremely dry.

The location of the three wadis means that Madinah benefits from large green areas within an otherwise dry, desert climate of the surrounding mountains.

Badr by comparison has a hot desert climate, with extremely hot summers, mild winters and very low levels of precipitation.

II.3 Culture

The growth of Madinah is intrinsically bound in Islamic culture and history. Several internationally significant religious and cultural sites are situated in the city including Al-Masjid an-Nabawi (Prophet's Mosque), Masjid Qubaa, Masjid al-Fath (Masjid al-Khandaq), the Seven Mosques, the Baqi' Cemetery, and Uhud mountain.

The city continues to be an important pilgrimage destination for the Islamic community, with the Prophet's Mosque and sacred tomb attracting millions of pilgrims to the city every year.

Traditionally compact in nature, the growth of the city has accelerated in the past 30 years, mirroring the broad trend for urbanization in the Kingdom.

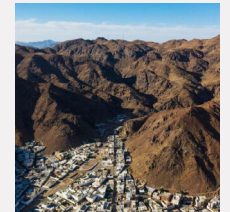
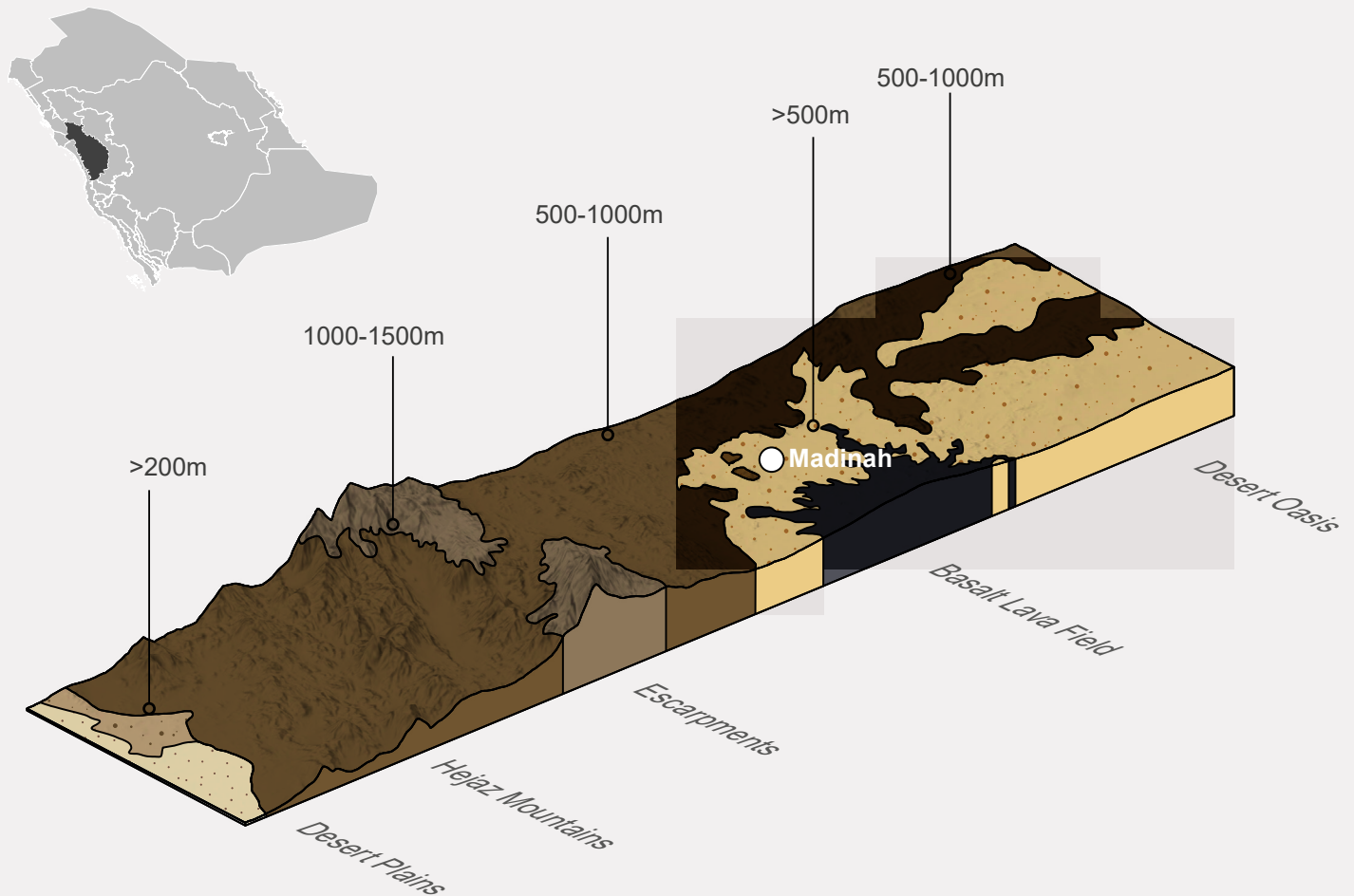
Badr is linked to the Battle of Badr, which Prophet Mohammed (PBUH) led after his migration to Madinah (624 CE).

II.4 Architectural influence

The Prophet's Mosque is an outstanding feature, characterized by the green dome which is a major landmark for the city. For the purpose of the guidance, this document places greater emphasis on more common architectural character, evidenced within the historic Old Madinah rather than the exceptional design of the Mosque itself.

Madinah's longstanding role as a pilgrimage destination has contributed to an interesting and eclectic mix of architectural characteristics, alongside the traditional influence of the region's geology and climate. These include the use of lava stone at the base of buildings, white rendered roofs and extensive use of roshan both single and multi-story vertical.

By comparison, the primary building material in Badr is earth, linked to the area's arid landscape.



Desert Plains

Mountains

Escarpments

Volcanic Ash

Basalt Field

Desert Oasis

FIG.5 INNER MADINAH TOPOGRAPHY AND LANDSCAPE

III Overview of Inner Madinah Architecture

A summary of the existing character of traditional architecture and settlements of Inner Madinah.

III.1 Architectural character

Madinah exhibits the distinct vernacular style of Hijazi architecture of the Red Sea coast, born out of a long tradition of cultural exchange built on centuries of prosperous trade and pilgrimage, and honed through local adaptation to geography and climate. The parallel influences of Asia, Africa and Arabia are

evident. Sharing the flow of materials and trades, the craftsmanship of the mashrabiyya found new expression in the roshan, and the use of the Jeddah construction, elements which surfaced throughout the region, including Madinah.

Traditional historic houses within Madinah's city walls were typically low-rise (two to three stories) adjoining buildings in narrow streets. More recently, the "Al-Hosh" typology has emerged, constructed from simple materials including brick, with less elaborate roshans and wood shutters. Al Hosh housing embraced natural light, cross

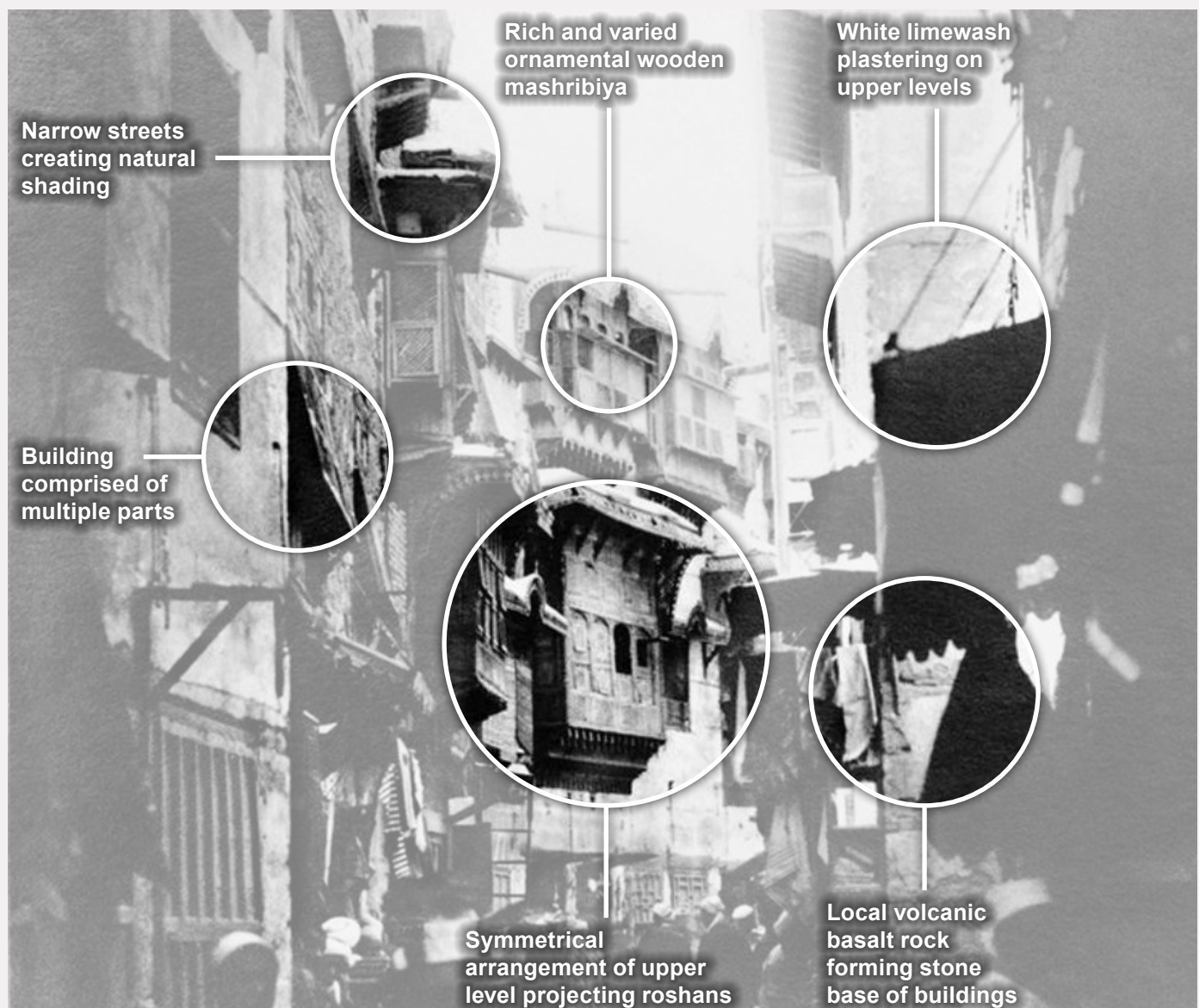


FIG.6 AL SAHA AREA, OLD CITY OF MADINAH

ventilation and connections with the environment.

The historic photograph of Al Saha (Fig. 19) highlights some of the traditional elements of architectural character which are relevant to Inner Madinah.

III.2

Settlement character

The character of Madinah's historic houses within the city walls was defined by adjoining houses, principally two to three stories tall, occasionally rising in height closer to Al-Masjid an-Nabawi. The prevalence of this typology resulted in narrow alleyways, with significant shading.

More recent development of the Al-Hosh typology has typically involved clustering of homes around semi-private squares. This settlement pattern resulted from expansion beyond the city walls, gentrifying orchards to create gated residential areas around a communal courtyard – a characteristic unique to Madinah.

Over time, much of the Al-Hosh areas have been redeveloped as the historic city was demolished and rebuilt.

The photograph below is near Bab Al Salam in the Old City of Madinah.

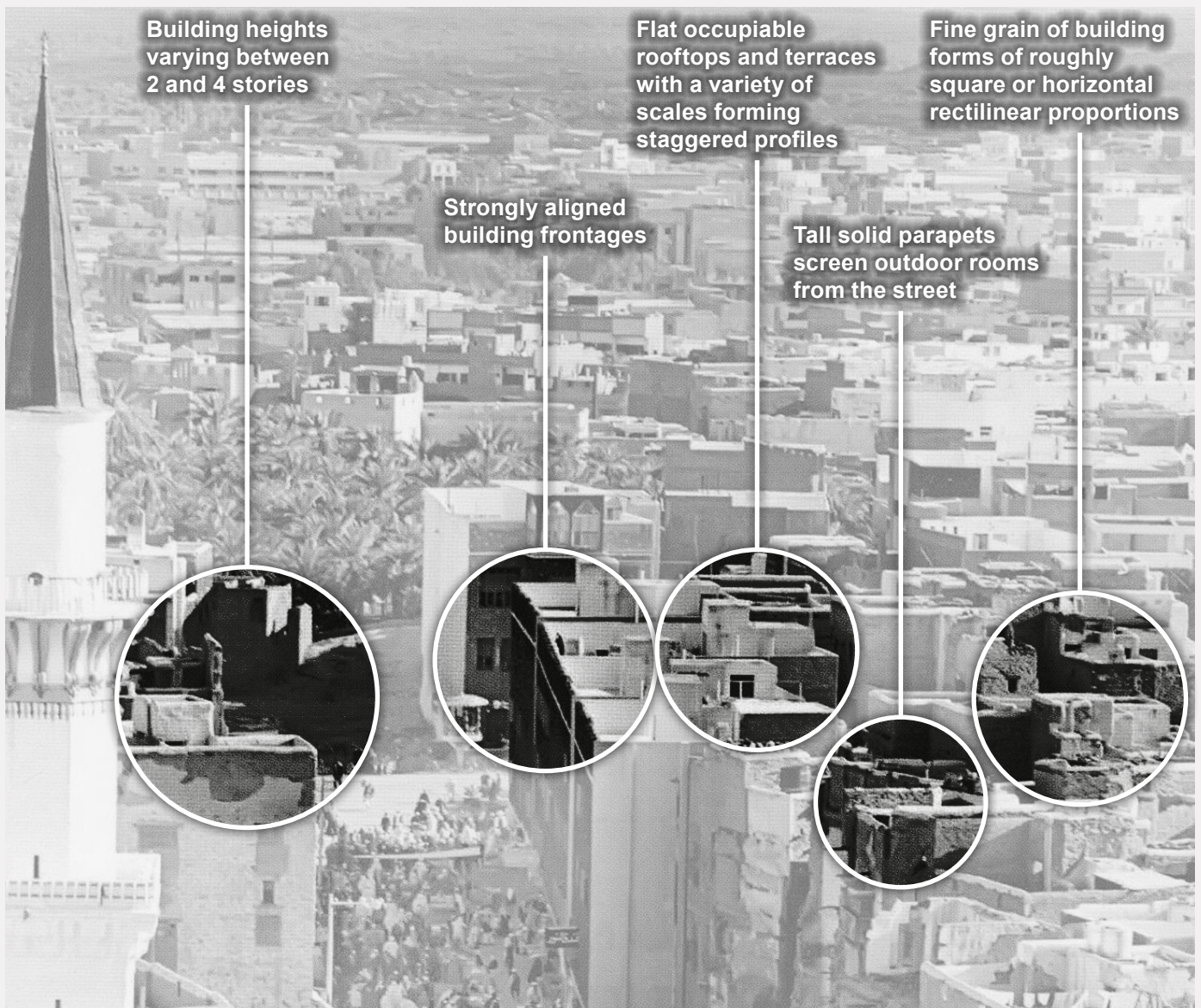


FIG.7 **BAB AL SALAM, OLD CITY OF MADINAH**

IV Analysis of Inner Madinah 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 Inner Madinah. These are summarized under the following headings.

IV.1 General typologies

Vernacular buildings are typically two to four stories with relatively wide proportions. Streets are often defined by strong alignment of frontages. As illustrated in the examples, they are frequently characterized by roshans, and deep parapets with a flat profile. Occasionally, buildings feature a partial additional story. Larger vernacular buildings, though less common feature more decorative roof profiles.

IV.2 Aspect ratio

Many characteristic three story examples incorporate generous parapet walls which enclose outdoor rooms and accentuate the sense of verticality. However, vernacular examples tend to be wider than examples in Makkah and Jeddah.

IV.3 Solid-to-opening* ratio

Facade analysis demonstrates a high proportion of void space, often more than 40%. The exact arrangement of the framing varies from building to building, reflective of the diversity of roshans.

*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.

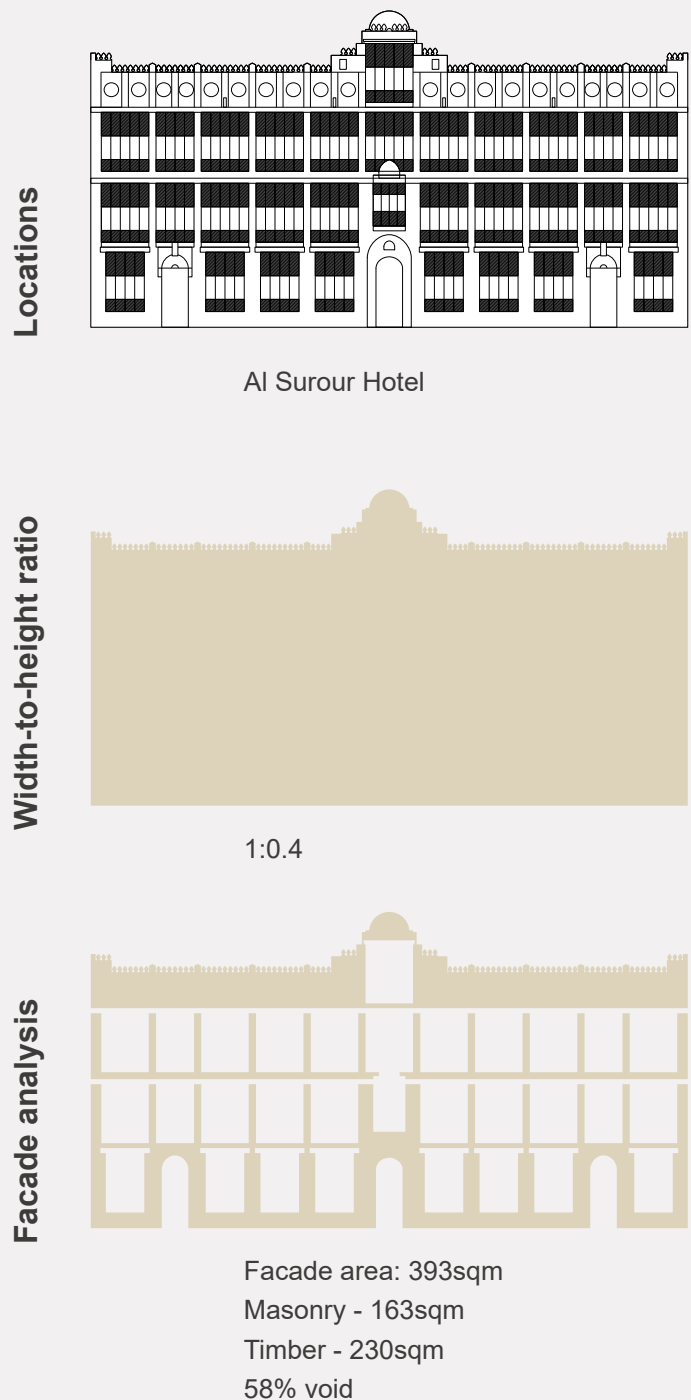
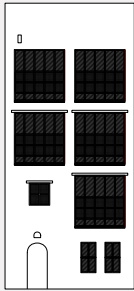
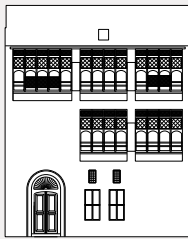


FIG. 8 Vernacular facade studies

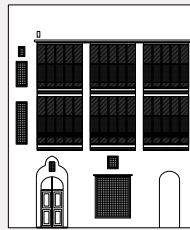
Vernacular facade studies



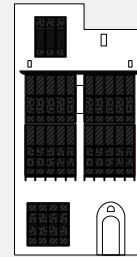
Al Saha lane
(former building)



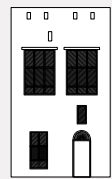
Al Manakhah



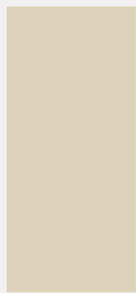
Al Qadi, Saha



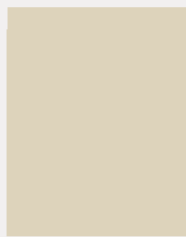
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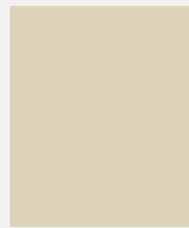
Al Anbariya



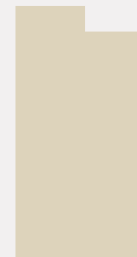
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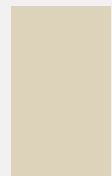
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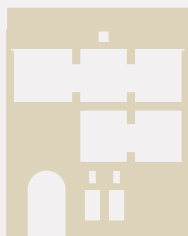
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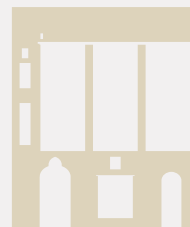
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Facade area: 110sqm
Masonry - 62sqm
Timber - 48sqm
44% void



Facade area: 125sqm
Masonry - 74sqm
Timber - 51sqm
40% void



Facade area: 122sqm
Masonry - 62sqm
Timber - 60sqm
49% void



Facade area: 93sqm
Masonry - 48sqm
Timber - 45sqm
48% void



Facade area: 50sqm
Masonry - 36sqm
Timber 14sqm
28% void

IV.4 Tripartite articulation

The base frequently has a different rhythm to the middle component, with asymmetrical arrangement of entrance and openings. The middle level is dominated by roshans which are typically across one or two levels depending on the scale of the building. The top element relates to generous parapet walls forming open rooms, screened from the street.

IV.5 Legible bays

Bays are clearly organized as geometric modules with uniform widths. Roshans are typically organized vertically in groups, or as single units. Vertical articulation is also present in some examples.

IV.6 Projecting elements

Projecting roshans present an opportunity to demonstrate impressive craftsmanship. Roshans tend to be joined into arrangements with neighbouring elements. They can be joined vertically with extended eaves. They can also be joined vertically with infilled panels. Whilst often arranged in a grid, there can be gaps within the grid that do not contain a roshan.

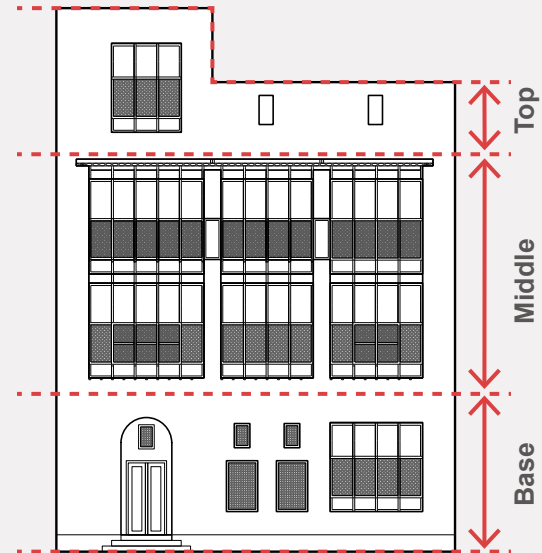


FIG. 10 Tripartite articulation
Facades are typically split into 3 separate tiers with their own distinct character: base, middle, and top.

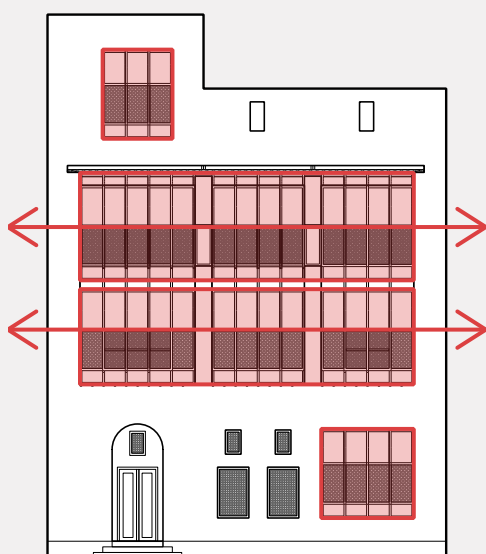


FIG. 9 Legible bays
Geometric arrangement of bays and roshans

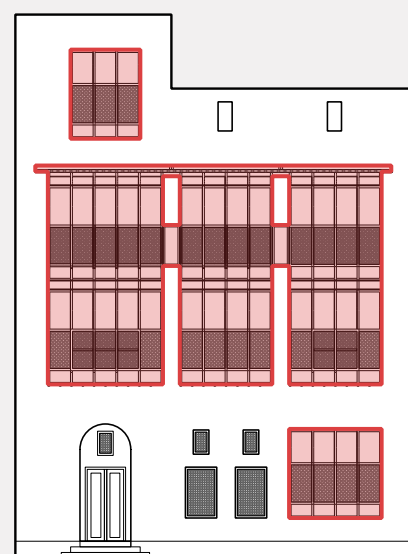


FIG. 11 Projecting elements
Roshans form strong projecting elements.

IV.7 Symmetrical arrangements

Roshans can adhere to a symmetrical, vertical arrangement around a central axis that determines its shape, sections, and structural framework. The modules ranging from 3-5 are proportional to the roshan's projection depth from the wall. There are examples where the layout is set within a grid yet with asymmetrical placement (through 'gaps' and the horizontal / vertical joining or roshans).

IV.8 Generous parapets

Buildings typically incorporate generous parapets which enclose outdoor rooms. Some examples include a taller pop-ups giving variation to the roofscape.

IV.9 Framed facades

Large rectangular infill elements with a high proportion of openings result in a framed facade. Arched doorway openings often serve as an important welcoming feature.

IV.10 Common finishes

Building finishes are typically a combination of basalt stone at the base and rendered upper levels.

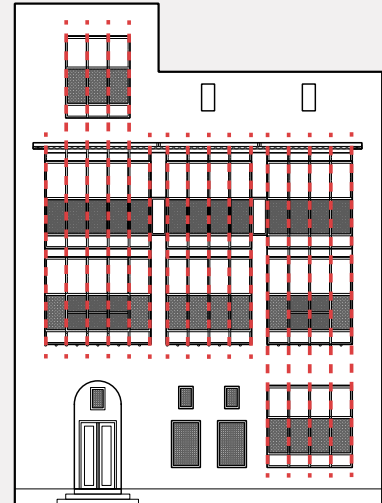


FIG. 13 Symmetrical arrangements
Roshans adhere to a symmetrical arrangement around a central axis and divided into vertical modules

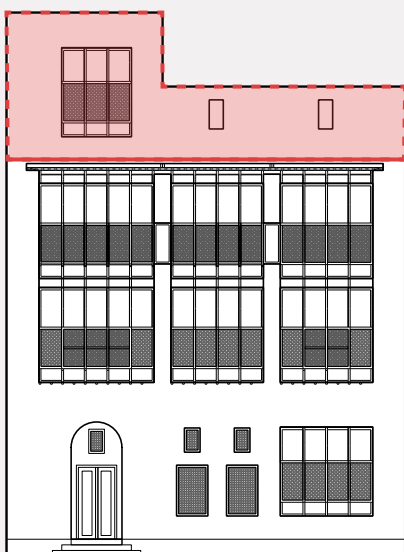


FIG. 12 Generous parapets
Flat roofs typically incorporate habitable rooms screened by tall parapets with small openings.

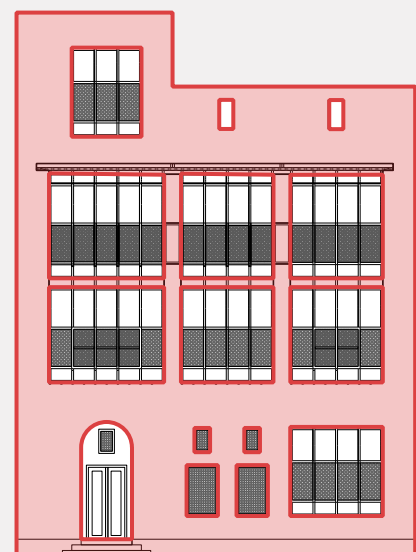


FIG. 14 Framed facades
Roshans form strong infill elements as part of a framed facade

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 innovation is needed. Advances in construction technology, material science, patterns of development and specifications for new building uses require buildings 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. 15 Character equation for Inner Madinah (after Ishteeaque & Al-Said 2008)



Traditional building

TRADITIONAL

Traditional buildings are defined by strong articulation of base, middle and upper levels, with a clear transition from gray stones to whiter tones. Facades are frame-like, with large rectangular roshans which include upward openings and fine detailing. Generous parapets, with stepped pop-ups and outdoor rooms.



Transitional building

TRANSITIONAL

The transitional building is a stepping stone between traditional and contemporary. Roshans continue to be a key feature, but less dominant than the traditional vernacular, with gaps between roshans creating stronger horizontal delineation.



Contemporary building

CONTEMPORARY

Contemporary buildings reflect the overall form and massing of traditional examples. Facades continue to exhibit a horizontal legibility (base, middle, top), with projecting elements. However, shutters and roshan elements are used more sparingly within a more ordered frame. Greater use of roof spaces.

FIG. 16 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 character.

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

- 6 **Applying the architectural 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 Inner Madinah.

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

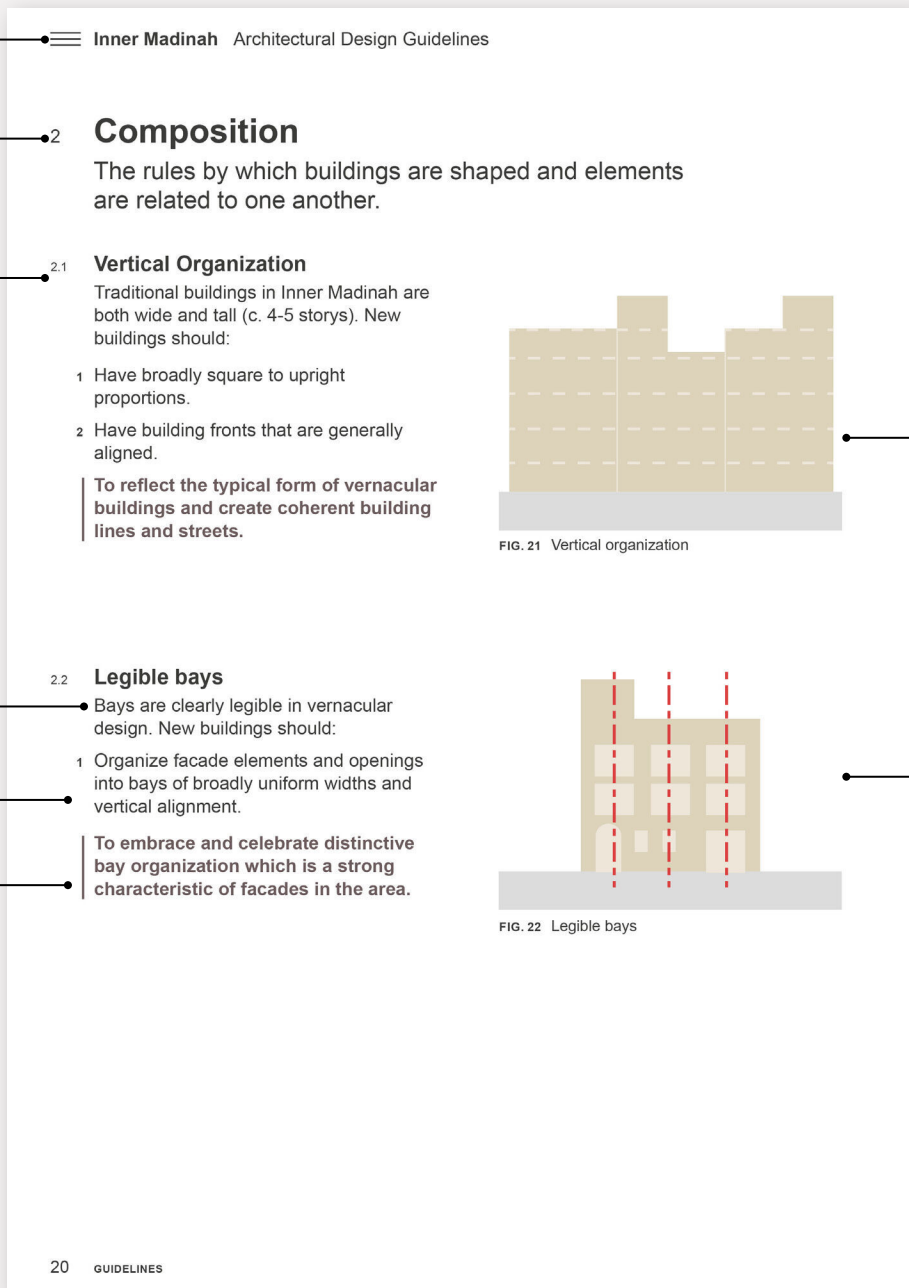
1 Chapter number
and heading

2 Guideline
number and
heading

3 General
description

4 Guideline
actions

5 Rationale



6 Illustrations

FIG. 17 Typical guideline structure

GUIDELINES

1 Key features

The most important attributes essential for conveying the architectural character of Inner Madinah.

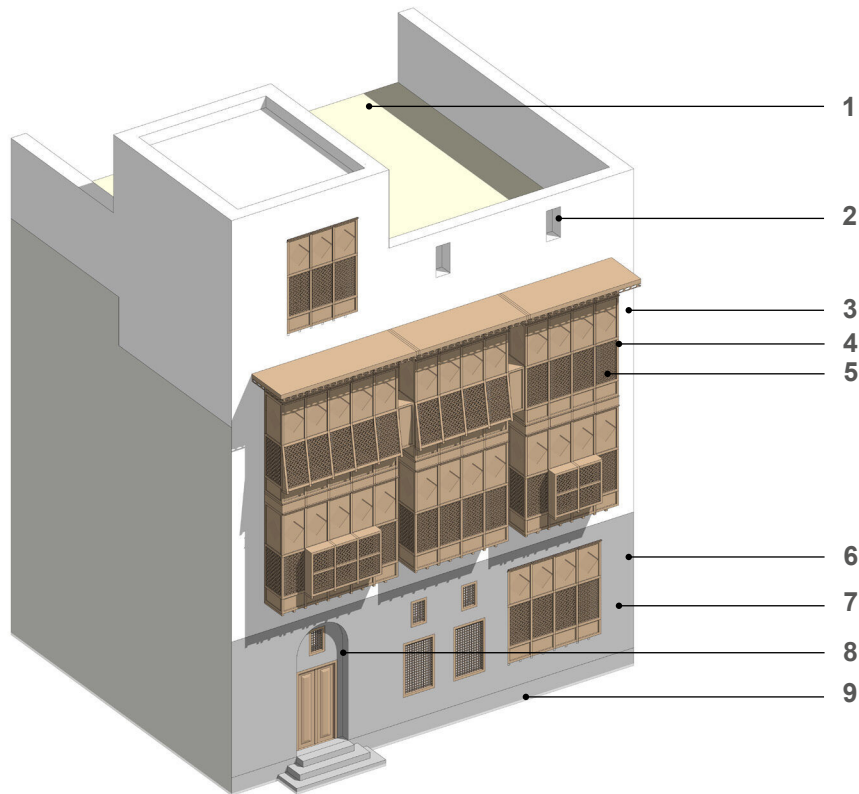


FIG. 18 Inner Madinah key features

Key features:

- 1 Flat occupiable roofs
- 2 Tall parapets screening from the street with small rectangular openings, on axis with windows below.
- 3 Frame-like walls with rectangular openings, shaded by timber elements and shutters.
- 4 Upper level single roshans and vertical roshans.
- 5 Ornamental screens based on geometric patterns.
- 6 Broad, closely aligned building frontages, forming orderly streets.
- 7 Wall finishes combine off-white render with dark gray basalt stone.
- 8 Arched doorway openings.
- 9 Projecting off-white mortar joints used for decorative variety in stonework.

1.1

Character summary

The vernacular character of Inner Madinah is rooted in the Hijazi style which is typically associated with the Red Sea coast. This has evolved through an ongoing process of exchange associated with trading and pilgrimage routes which have passed through the area. The area's particular geography and climate has resulted in distinctive variations, combined with influences from Asia, Africa and Arabia.

The surrounding landscape and geology have played a key role in shaping the materiality of buildings. Basalt is particularly important in shaping the base of buildings. The area has very significant religious and historical significance to the wider Islamic world. A number of buildings and special landscape features such as Uhud mountain in Madinah, and the site of the Battle of Badr have major cultural and religious resonance.

Historically, the traditional two to three-story historic houses within Madinah's city wall formed narrow streets with conjoined buildings. Subsequently, the "Al-Hosh" typology emerged which was defined by simple materials including brick, with less elaborate roshans and wood shutters, and a responsive environmental design approach which embraced natural light, cross ventilation and connections with the environment. These areas featured gated residential areas, organized around communal courtyards. Although much of these areas have now been demolished, the characteristics of these typologies play a significant role in defining the vernacular architecture of the character area with a view to informing future development.

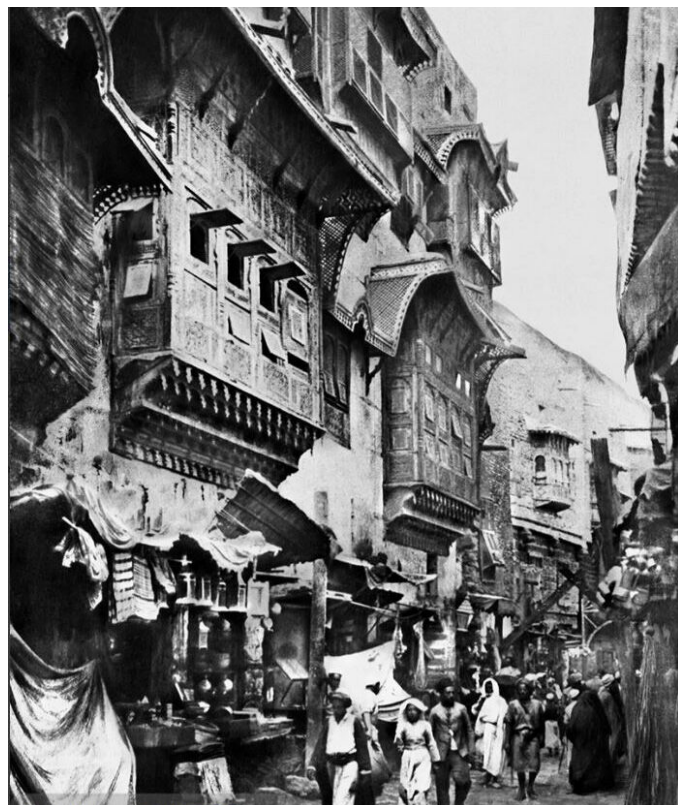


FIG. 19 Al Saha Area, Old Madinah



FIG. 20 Al Qadi House, Saha Road, Old Madinah

2 Composition

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

2.1 Vertical Organization

Traditional buildings in Inner Madinah are both wide and tall (c. 4-5 storys). New buildings should:

- 1 Have broadly square to upright proportions.
- 2 Have building fronts that are generally aligned.

To reflect the typical form of vernacular buildings and create coherent building lines and streets.

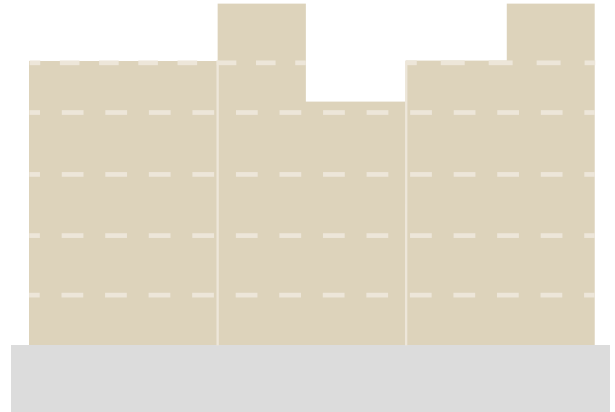


FIG. 21 Vertical organization

2.2 Legible bays

Bays are clearly legible in vernacular design. New buildings should:

- 1 Organize facade elements and openings into bays of broadly uniform widths and vertical alignment.

To embrace and celebrate distinctive bay organization which is a strong characteristic of facades in the area.

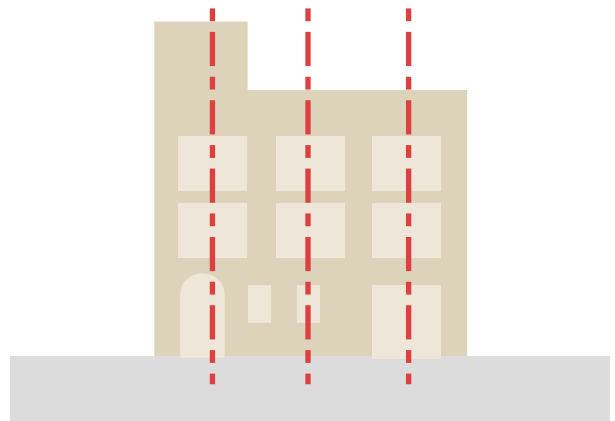


FIG. 22 Legible bays

2.3 Framed facades

Walls have a frame-like character. New buildings should:

- 1 Emphasize the dominance of framed facades.
- 2 Incorporate rectangular openings, shaded by timber elements and shutters.

To soften the presence of architecture upon the landscape. To accentuate awareness of the surrounding landscape.



FIG. 23 Framed facades

2.4 Projecting elements

Roshans are typically found on the upper floors. New buildings should:

- 1 Have roshans that tend to be grouped with neighboring elements.
- 2 Link roshans horizontally with extended eaves, where appropriate.
- 3 Link roshans vertically with infilled connecting panels, where appropriate.
- 4 Consider that, whilst often arranged in a grid, there can be gaps within the grid that do not contain a roshan.

To establish a rich and varied detailing within a broadly consistent approach to roshan composition.



FIG. 24 Projecting elements



FIG. 25 Variety of roshan arrangements

2.5 Base details

Wall finishes demonstrate a close relationship with the ground. New buildings should:

- 1 Use dark gray basalt stone for the base of the buildings.
- 2 Change to off-white render on floors above.

To maintain a connection with the landscape and typical vernacular materials.



FIG. 26 Base detail

2.6 Stepping roofscape

Roof and parapets form a distinctive component in Inner Madinah. The design of new buildings should:

- 1 Be flat or incorporate habitable rooms forming a “pop-up” element.
- 2 Provide outdoor rooms, enclosed by tall parapets which are flush with the building line.
- 3 Consider the incorporation of rectangular openings.

To retain a consistent and traditional roofscape.

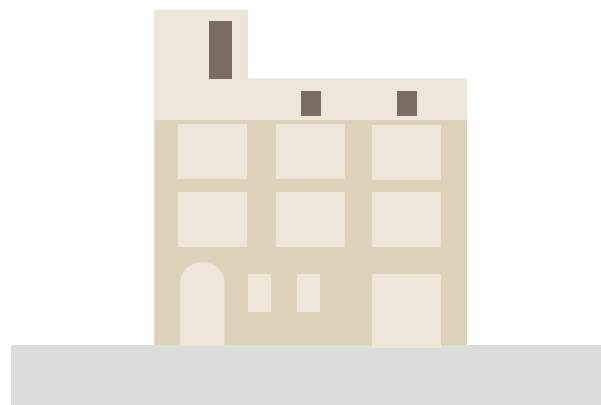


FIG. 27 Stepping, rectilinear roofscape

2.7 Continuous streetwalls

Buildings in Inner Madinah should work with neighboring buildings to clearly define streetwalls.

- 1 Align primary street-facing facades with adjoining buildings.
- 2 Share party walls with neighbors to create larger urban blocks.
- 3 Allow for narrow, intimate lanes between buildings in dense urban areas for greater pedestrian permeability.

To create clearly defined street structure and urban block composition.

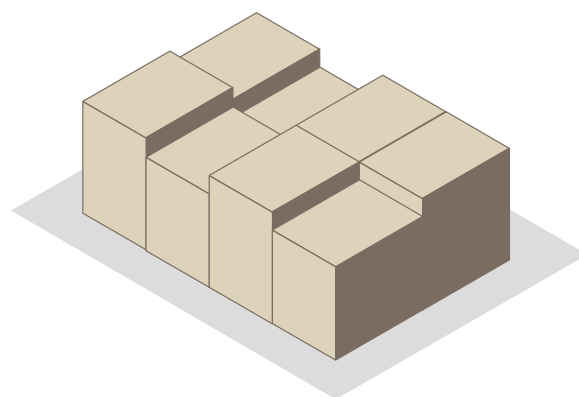


FIG. 28 Aligned frontages in urban blocks

2.8 Courtyards and lightwells

Courtyards and lightwells contribute to the quality of life for residents, particularly in compact, urban environments. Buildings should:

- 1 Cluster homes to provide semi-private squares or communal courtyards.
- 2 Provide private outdoor amenity for the surrounding buildings.
- 3 Provide indirect lighting to adjacent rooms.
- 4 Enable cross ventilation to the surrounding buildings.

To be inspired by the vernacular approaches to environmental control

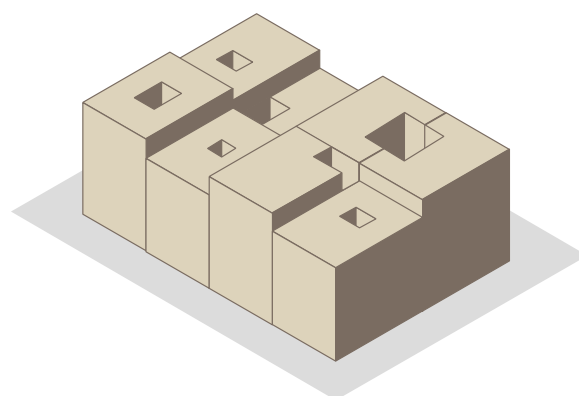
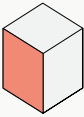



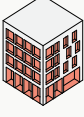
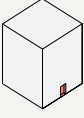
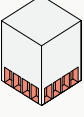
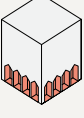
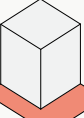


FIG. 29 Courtyards and semi-private squares



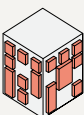
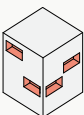

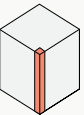
3 Elements

The individual parts that are the building blocks of the Inner Madinah architecture.

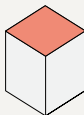
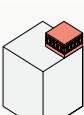
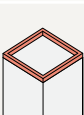
TAB. 1 Inner Madinah architectural elements

GENERAL ELEMENTS		
	Key characteristics	Refer to introduction on page 19 which outlines the key characteristics of Inner Madinah.
	Facade proportion	Vernacular buildings are typically two to four stories with relatively wide proportions (approximately 1:1.2 width to height ratio). New buildings may be more vertical in proportion as part of the townscape, reading as a clear horizontal group with strong alignment of frontages. Create clear horizontal articulation between base, middle and top.
	Window-to-wall %	High proportion of void space, often more than 40%. Exact arrangement of framing varies according to roshan disposition. Openings should be protected from direct solar radiation.
	Opening proportions	Window openings should be rectangular with width to height ratio between 1:2 and 1:3. Roshan should be either single or horizontal. The scale of the roshan should reference historic examples and be appropriately sized for the rooms they serve.
	Composition	Depending on overall building size, the base may be characterized by as much as the first 1 - 3 stories of the building above ground. For taller buildings, stepping the massing at lower floors may help establish a sense of horizontality at street level. See expanded guideline E1.5.
BASE ELEMENTS		
	Entrances	Entrances should be flush with the building facade. Entrances should incorporate use of arches in all cases.
	Shop fronts	Retail entrances should be generous and simple, addressing the street frontage and generally accessible from the street. Retail entrances should incorporate solid shutters, allowing for shutting down during hot days.
	Arcades	Where a building is located on a gateway route or other significant route designated by the planning authority, buildings should provide an arcade at the ground floor to create a more walkable city and enhance the public realm. Awnings are appropriate in more contemporary buildings.
	Curtilage	The exterior ground floor of buildings, including 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.

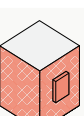
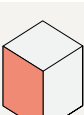
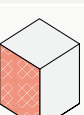
MIDDLE ELEMENTS

	Wall articulation	Horizontal organization of bays. Conceal all services. Openings should be ordered in legible vertical bays which may alternate and repeat within larger orders across facades
	Windows and Openings	Window and opening design are subject to a large number of compositional guidelines. See section 3.2 windows and openings.
	Projecting elements	Roshans are a key feature in buildings across Inner Madinah. These project from the facade, a characteristic which is accentuated by decorative roshan eaves and upward openings which should form key elements in new buildings.
	Recessed elements	Doors in some cases are recessed.
	Shutters and Shading	Shutters should be made out of solid wood panels, with a contemporary interpretation of traditional patterns. Roshan and shutters on the same building should follow the same pattern theme.
	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 (pop-up elements on parts of the corner of roofs are appropriate). Buildings have simple side elevations with simple articulation of openings.

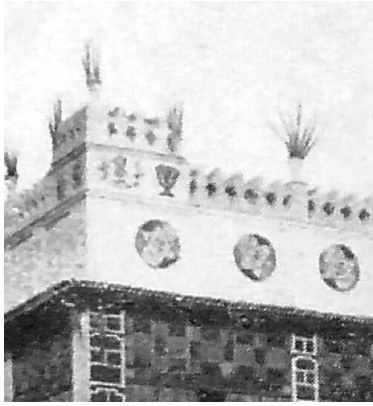
TOP ELEMENTS

	Roofscape	Active, accessible roofspace is encouraged. Staggered roofscape is preferred. Roofscape can be punctuated by taller, exaggerated height above corners and main entrances as outdoor rooms.
	Rooftop Elements	Should be aligned with the parapet / building facade
	Parapets	Parapets should be horizontal, with balustrade ornamentation, cornices, or materially continuous with the wall below. Parapets are typically low in height. Where building plant is located on the roof it should be set back or enclosed so as not to be visible from the street and public realm below.

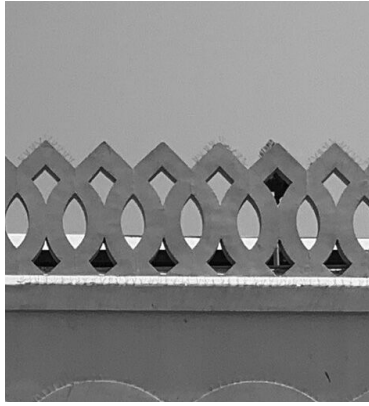
OTHER ELEMENTS AND ORNAMENTATION

	Materiality	See materials and colors in section 4 of guidance.
	Color	See materials and colors in section 4 of guidance.
	Pattern	See pattern in section 5 of guidance.

Top



Traditional parapet denticulations



Traditional parapet denticulations



Solid rendered tall parapet



Tall parapet with shaburah



Parapet with small openings

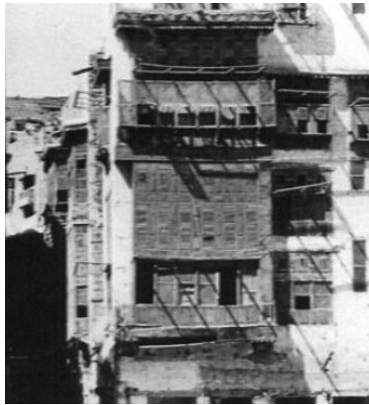


Staggered roof line

Middle



Single projecting roshan



Vertically articulated roshan



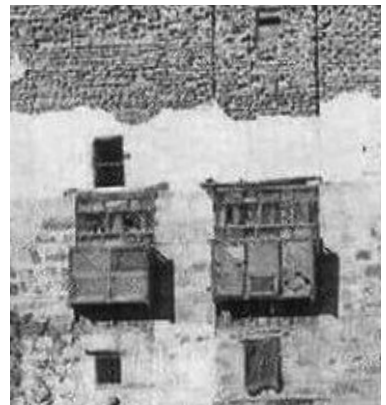
Flush wooden fenestration



Ornamentally crafted roshans



Horizontally articulated roshans



Single projecting roshan

FIG. 30 Examples for top and middle elements

Base

Arched stone entrance



Pointed arch entrance



Rounded arch entrance



Arched entrance



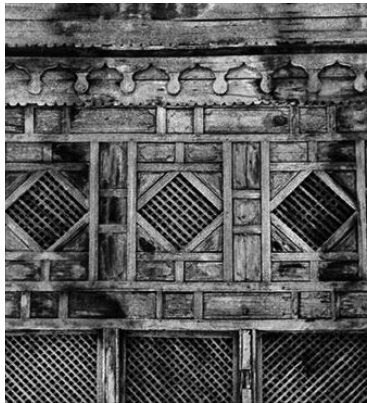
Arched entrance



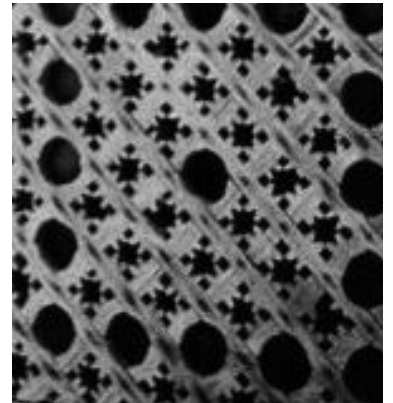
Arched entrance

Ornaments and other elements

Roshan ornamentation



Roshan ornamentation



Geometrical fretwork detail



Decorated arched entrance



Decorated plasterwork



Decorated window plasterwork

FIG. 31 Examples for base and other elements

3.1 Doors and entrances

Doors were traditionally significant as a welcoming feature for visitors and reflected the character and social status of the owner. The design, size, shape, proportions, and orientation of doors requires careful consideration.

The design of new buildings should:

- 1 Clearly define primary entrances as part of a well-ordered street frontage. Door framing and recessing can add depth and create a sense of entry.
- 2 Incorporate arch tops in all cases with modest ornamentation.
- 3 Consider the articulation of entrances and openings using wood and stone, using local materials where possible.
- 4 Be set to one side of the building.

To create suitable thresholds within the base which is part of a well-ordered, coherent street scene and responds to local character

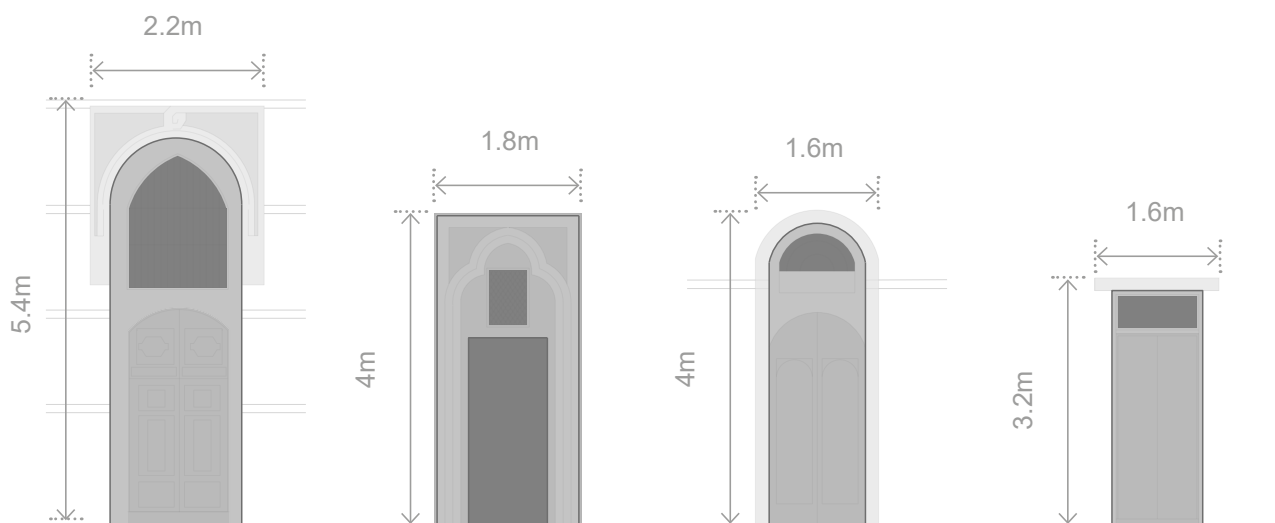
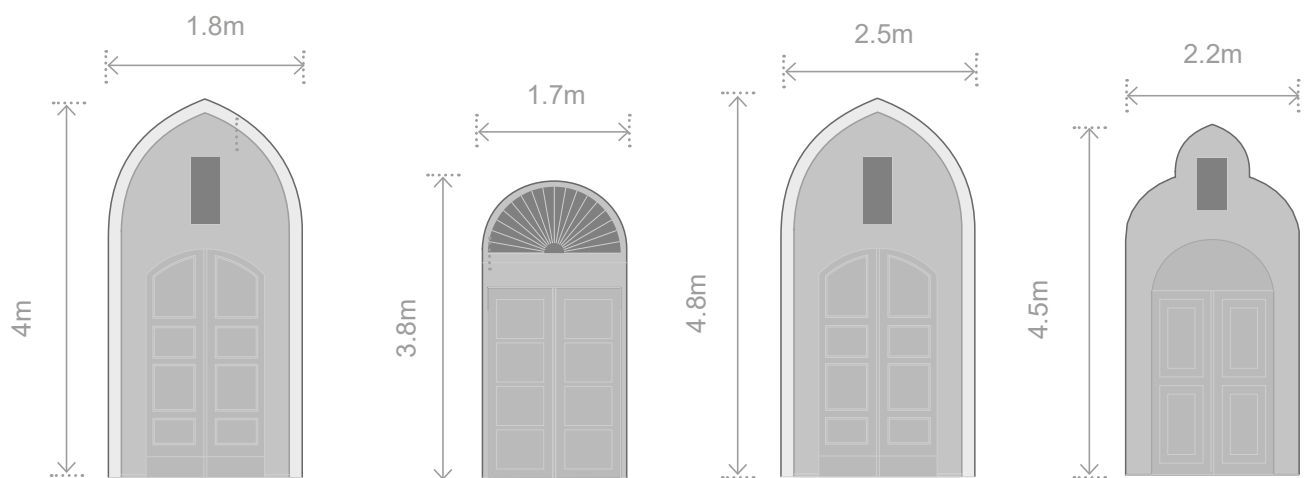


FIG. 32 Traditional doors



3.2 Windows and openings

Windows and openings have a number of key characteristics in Inner Madinah, in response to climatic and aesthetic factors.

Design of new buildings should:

- 1 Provide rectilinear vertical windows.
- 2 Incorporate simple, geometric patterns incorporating arch motifs.
- 3 Provide upper level single roshans and horizontal roshans.
- 4 Include upward openings and decorative roshan eaves to further accentuate projecting features.
- 5 Embrace rich and varied roshan detailing across single facades, including repeating and alternating elements within an overall sense of symmetry.
- 6 Consider use of solid shutters and wooden screens.
- 7 Use wood for openings and shading devices.

To respond to climate considerations and provide an aesthetic treatment which is distinct to the local area.

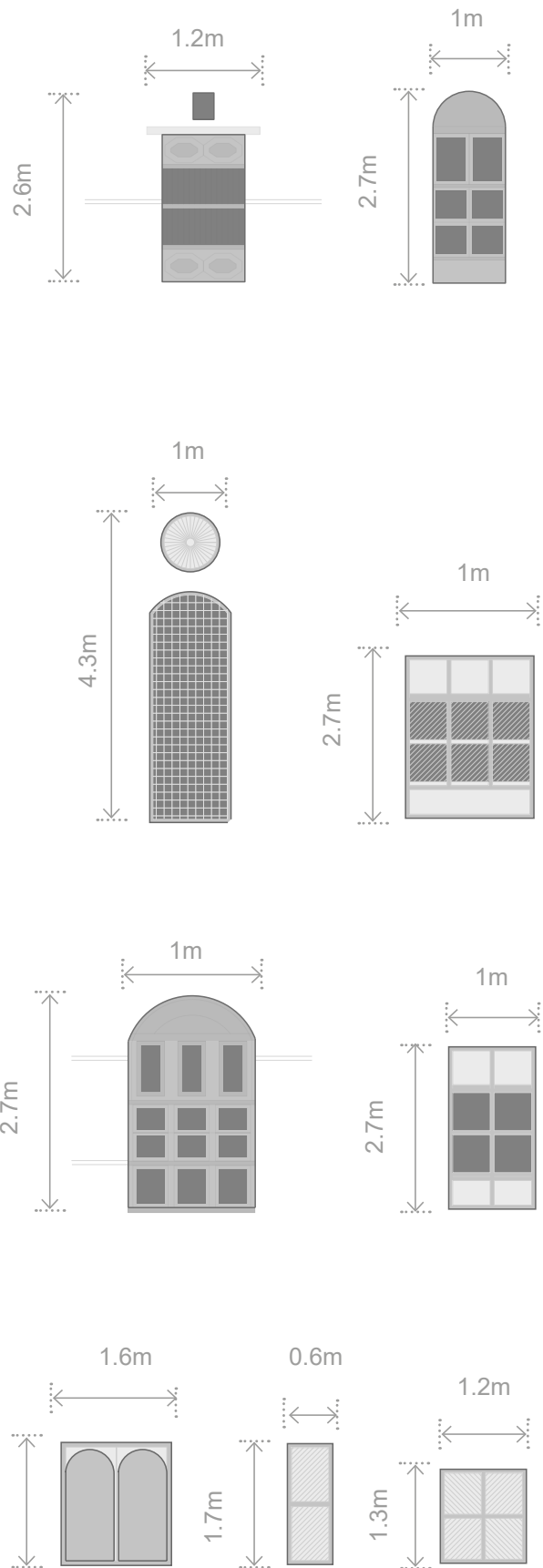


FIG. 33 Traditional window elements

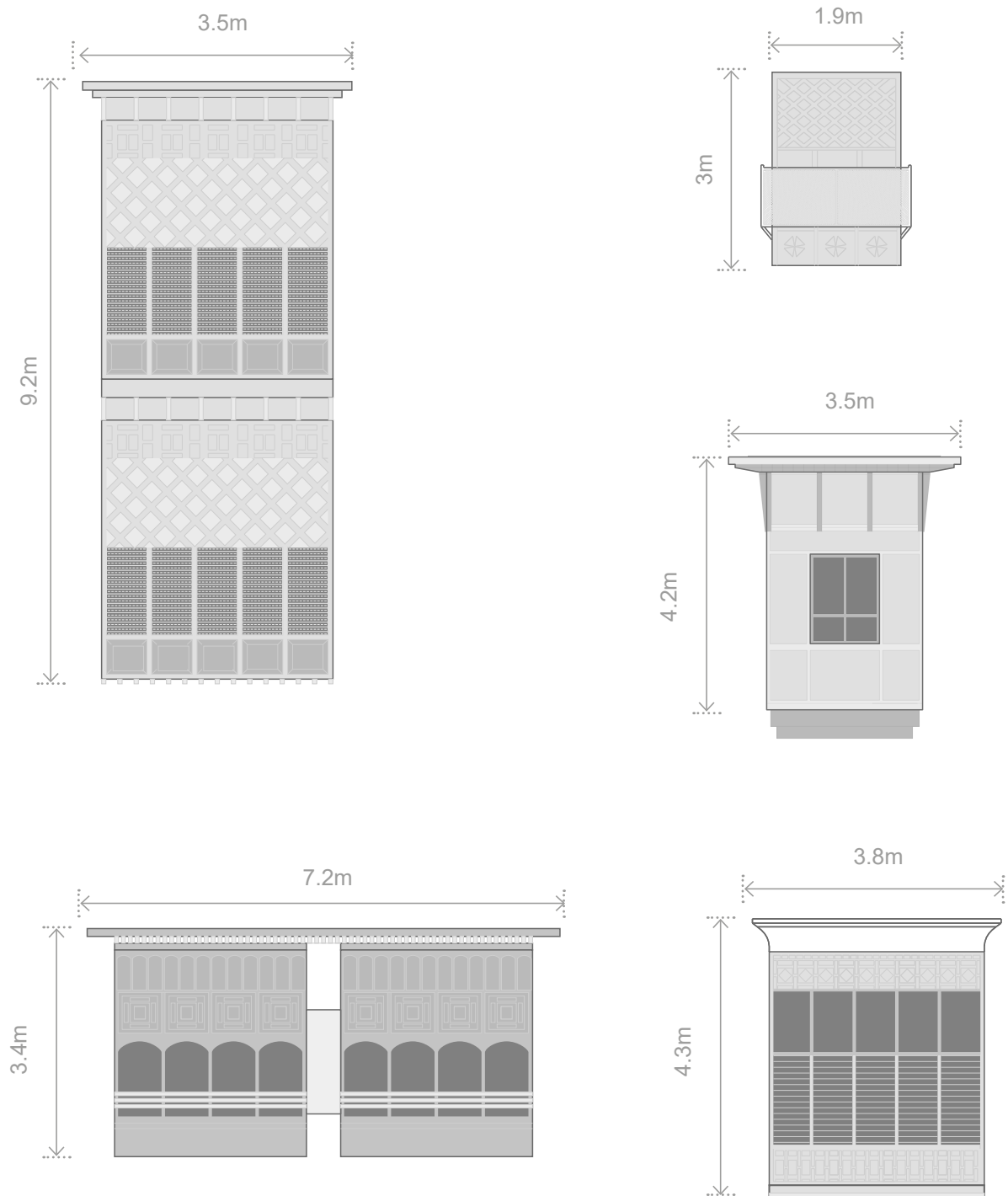


FIG. 34 Traditional roshans

3.3 Rooftop elements

Inner Madinah has a distinctive roofscape which is a key part of its character.

New development should:

- 1 Be completely flat, or incorporate habitable rooms or pop-up elements, potentially screened by wood screens or shaburah (small openings in parapets).
- 2 Maintain a distinct rectilinear form, with groups combining to form a staggered roofscape.
- 3 Should feature flat parapets which are be flush with the primary building line and integrated into the building's facade.
- 4 Accommodate accessible roof space with functional areas concealed from the street by 'shaburah' or small openings in parapets.

To create functional roof spaces and roofscapes which embrace the typical characteristics of the local area

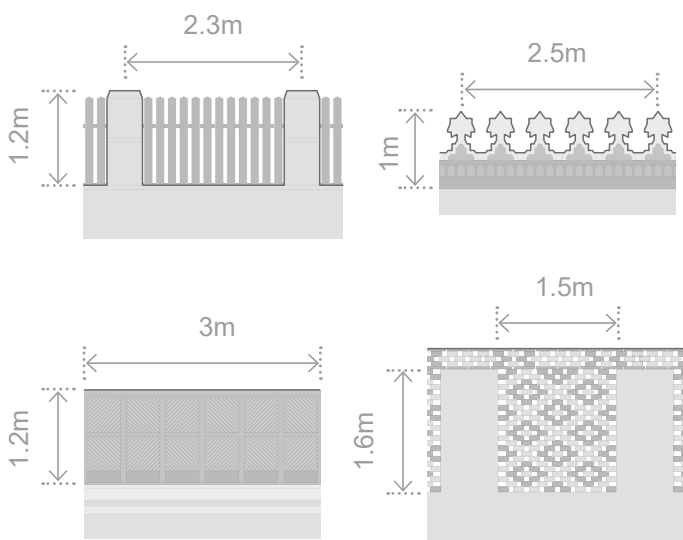


FIG. 35 Traditional parapet elements

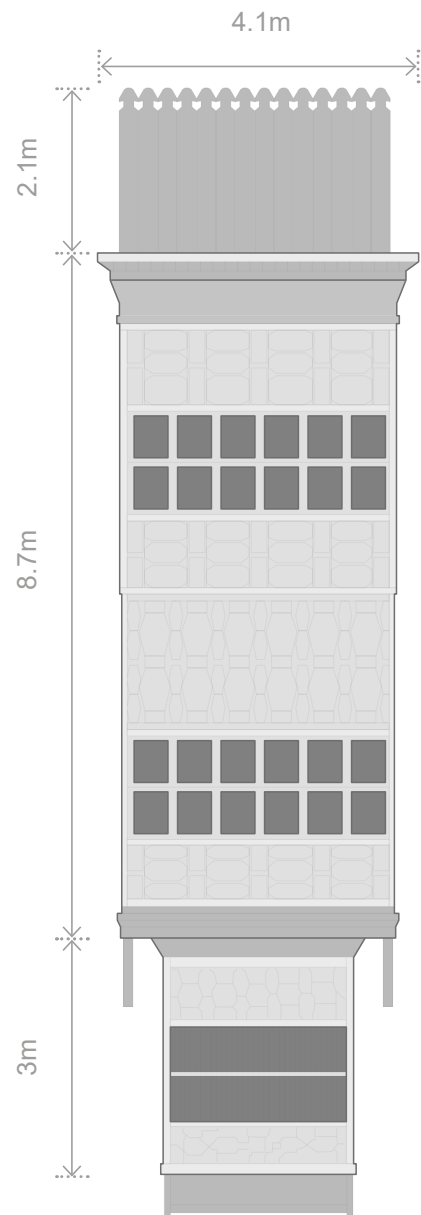


FIG. 36 Roof high roshan

3.4 Other elements

In addition to the elements above, buildings often incorporate off-white mortar joints used for decorative variety in stonework. Drainage spouts also form projecting elements, although are less important to the overall character of the area.

To embed other elements which are frequently part of the overall composition of buildings

3.5 Arches

The table below shows the range of arch shapes and head of openings evident in Inner Madinah. 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	<ul style="list-style-type: none"> Multiple applications Windows, door frames, vent openings 	<ul style="list-style-type: none"> Focused applications Door recesses Rare use for Mosques/ High-Status buildings as ground level openings, niches 	<ul style="list-style-type: none"> Multiple applications Parapets Windows Door frames 	<ul style="list-style-type: none"> Multiple applications Ground floor passages and interiors Door recesses and door frames Rare use for windows 	<ul style="list-style-type: none"> Focused applications Carved door hood recess, niches Rare use for window hood recesses (Ribats) 	<ul style="list-style-type: none"> Focused applications Carved door hood recess, niches 	<ul style="list-style-type: none"> 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 characteristic of the traditional architecture of Inner Madinah.

Traditional character is closely linked to the colors associated with typical building materials and finishes including stone, wood, and white render.

- 1 Adopt clear banding with the base and middle made of basalt lava stone, with the middle transitioning into rendered white walls on remaining levels. Light earth colors might also be used.
- 2 Celebrate connections to distinctive landscape materials and colors, particularly the Harrat fields.
- 3 Consider climate and durability in relation to the ongoing use of stone, and reflective colors.
- 4 Use wood for openings and shading devices.
- 5 Embrace natural colors for general use, with occasional use of brighter colors for specific elements.
- 6 Designers should demonstrate the compatibility of their project color scheme with the hues above through visualizations projected upon actual site photographs, mood boards and material sample boards.
- 7 Colors do not need to replicate the hues exactly but should be compatible when the project is seen as a whole and be complementary to the surrounding context.

To use materials which are appropriate to local landscape character and traditional vernacular, supporting climate resilience and reinforcing cultural / religious significance

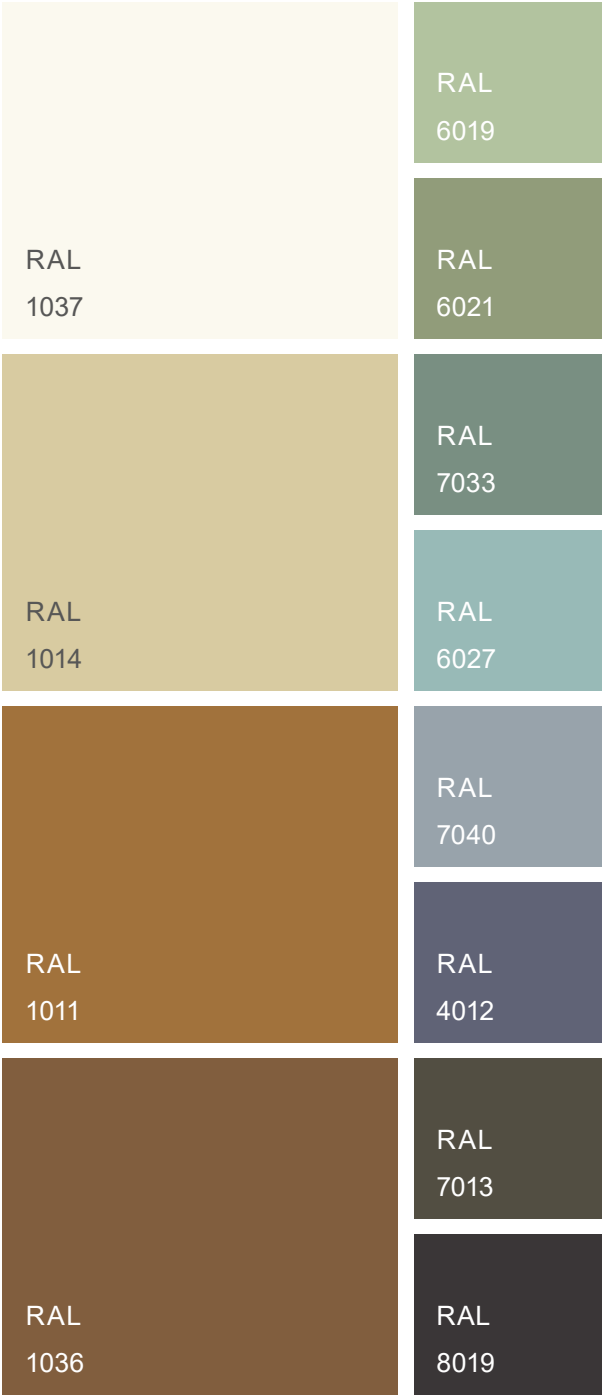


FIG. 37 RAL color palette

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/

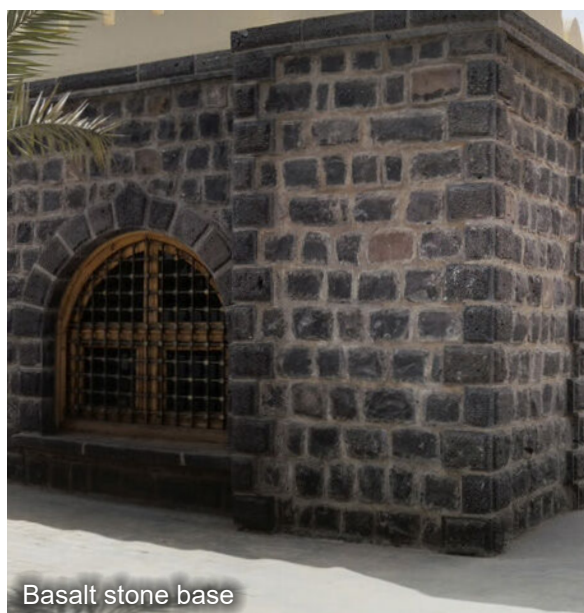
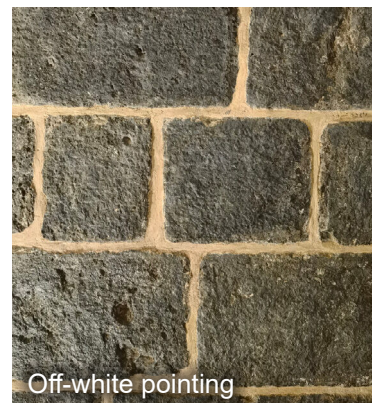
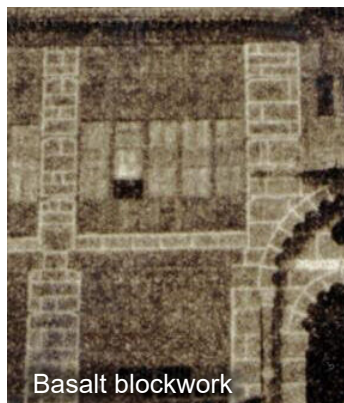
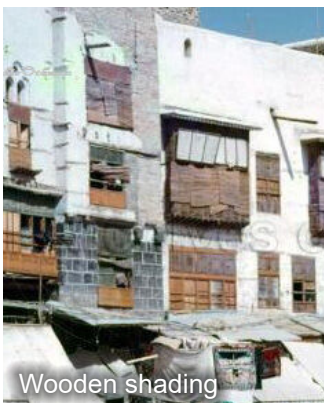
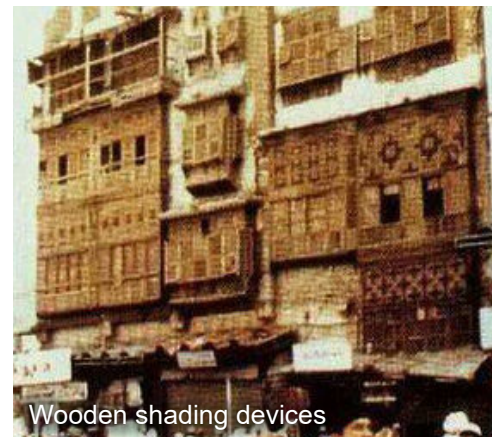
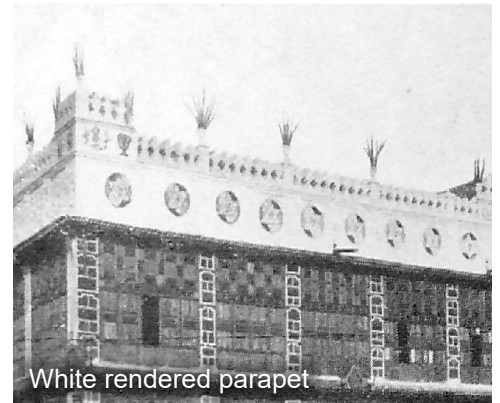


FIG.38 **COLORS AND MATERIALS**

5 Patterns

Common motifs and patterns used in the traditional craftsmanship and material culture of the Inner Madinah architectural character area.

Patterns in the Inner Madinah area are often influenced by religious significance. In other cases, they are linked to common materials, or the use of small geometric openings in buildings.

New buildings should:

- 1 Find opportunities to create patterns through the application of local materials.
- 2 Limit the use of surface patterns to doors, window screens and doors.
- 3 Where surface patterns are appropriate, these should be simple geometric patterns.
- 4 Where multiple decorative patterns are applied across a single facade, these should be consistent.

To add interest and provide variety across different buildings

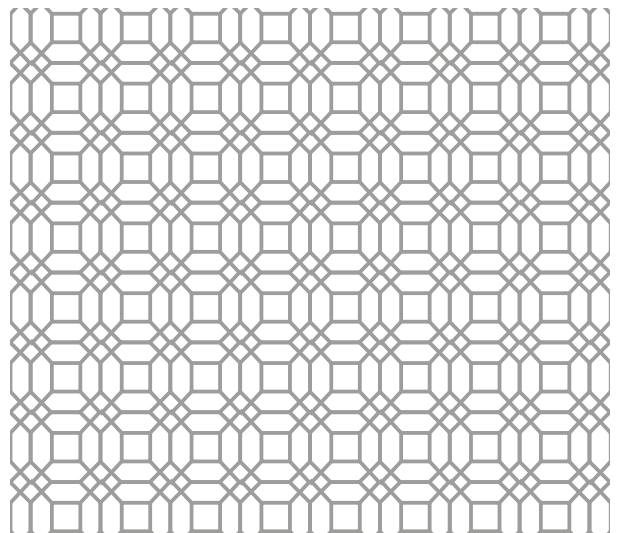
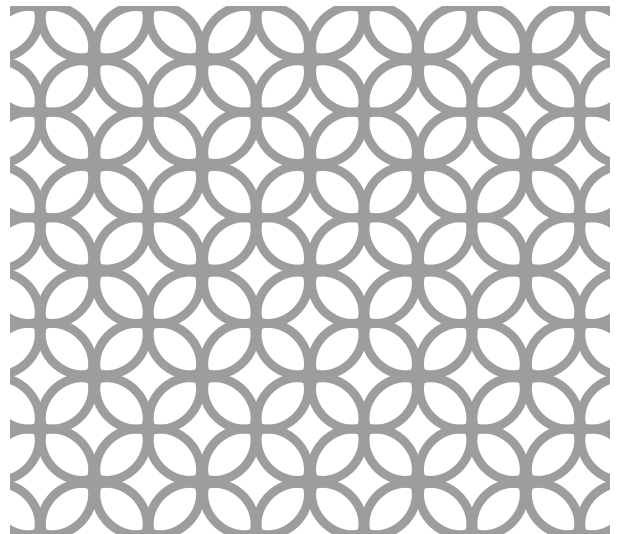
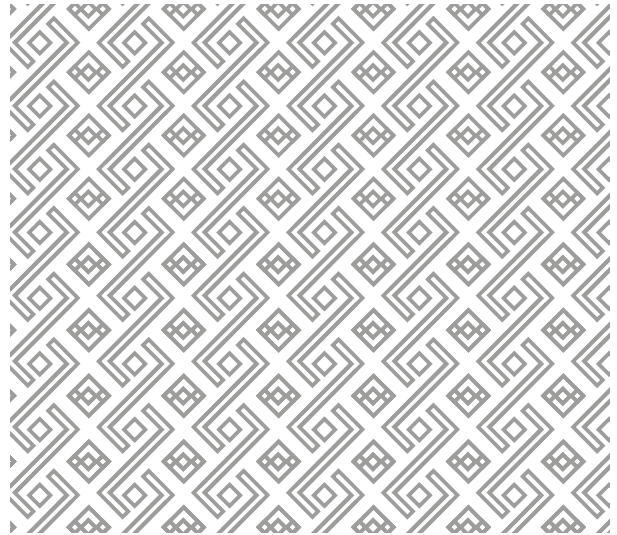


FIG. 39 Patterns abstraction

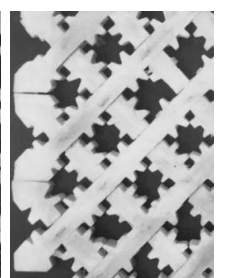
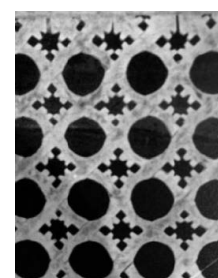
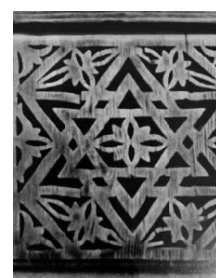
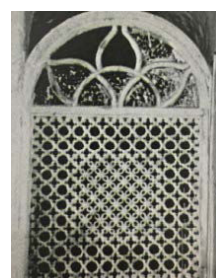
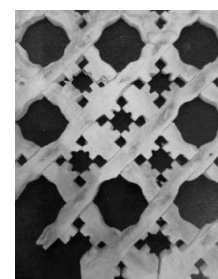
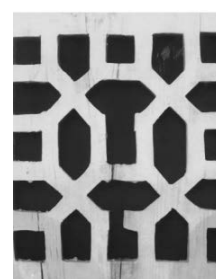
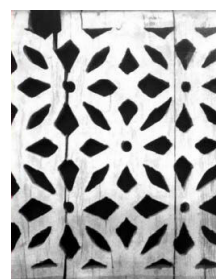
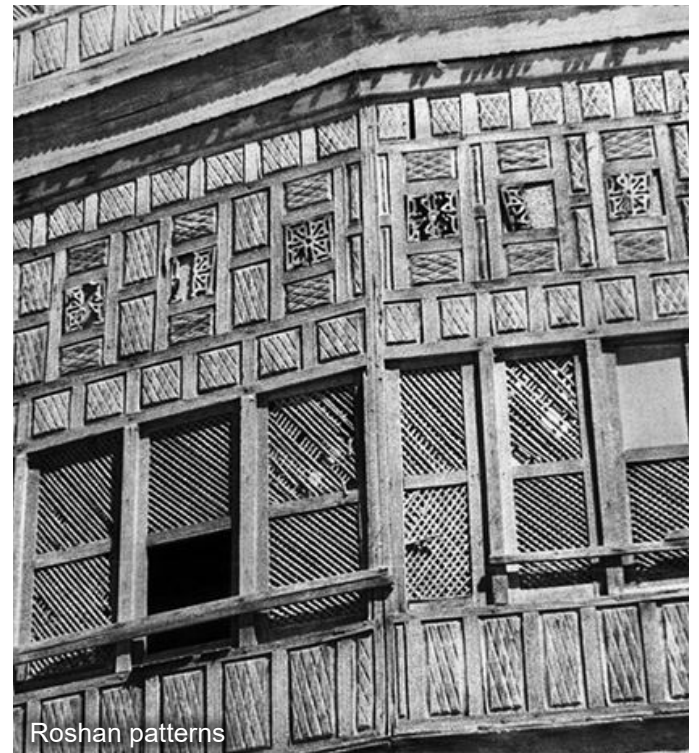


FIG.40 **PATTERNS**

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.

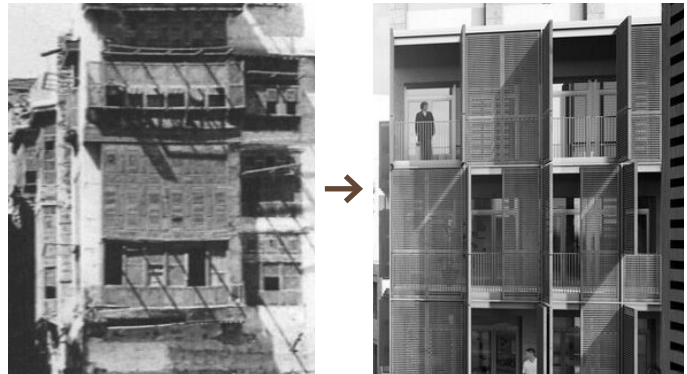


FIG. 41 Example of building material abstraction*

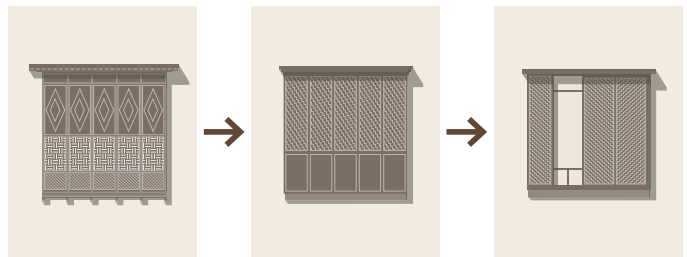


FIG. 42 Example of roshan abstraction*

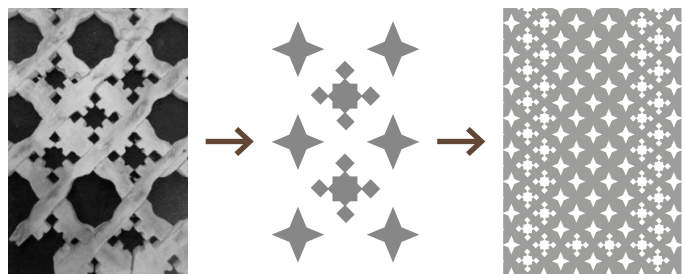


FIG. 43 Example of pattern abstraction*

*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 Inner Madinah 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.

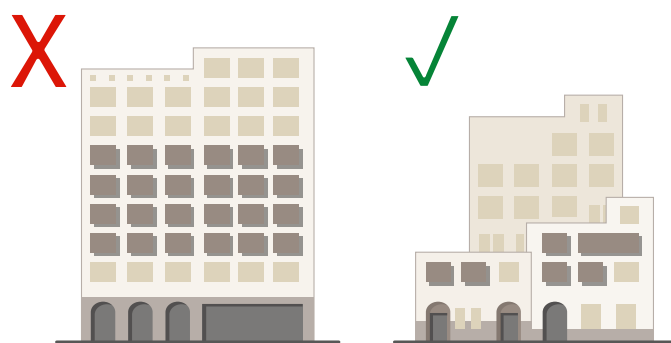


FIG. 44 Break down building massing to better fit traditional architectural elements*

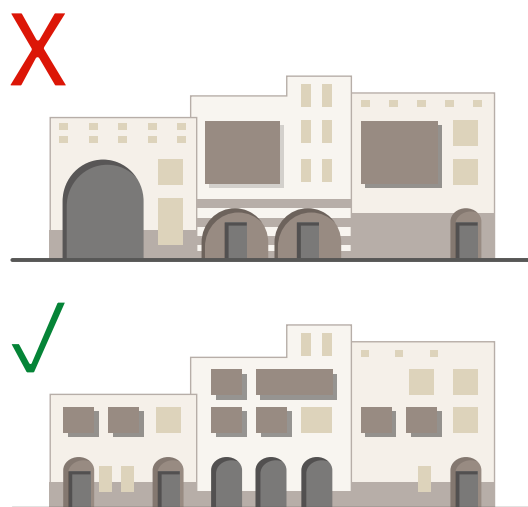


FIG. 45 Do not scale and distort smaller elements into oversized graphic features*

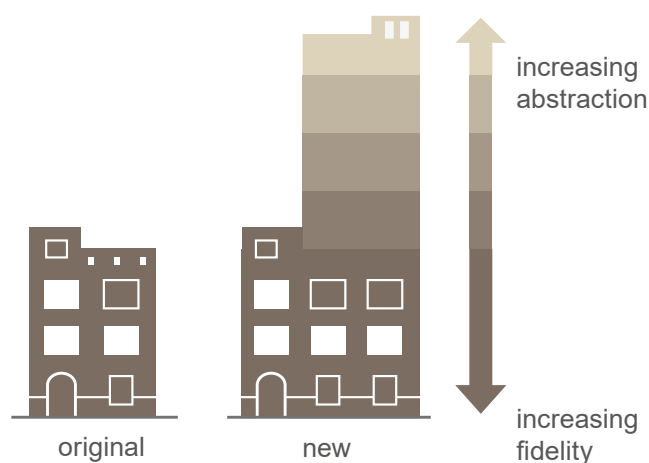


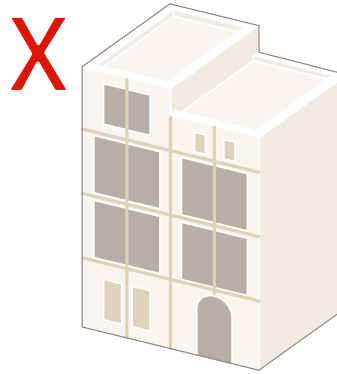
FIG. 46 Pay attention to building elements near the public realm, especially at the ground floor*

6.3 Functionality

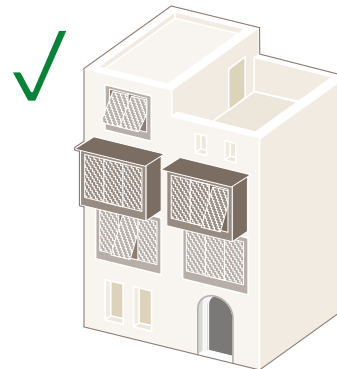
Architectural elements should perform functionally like their traditional counterparts, and not be applied superficially like graphic signage.

- 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.



Superficial roshan and window screens



Functional roshan and window screens

FIG. 48 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. 47 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 Inner Madinah architectural character.

6.5

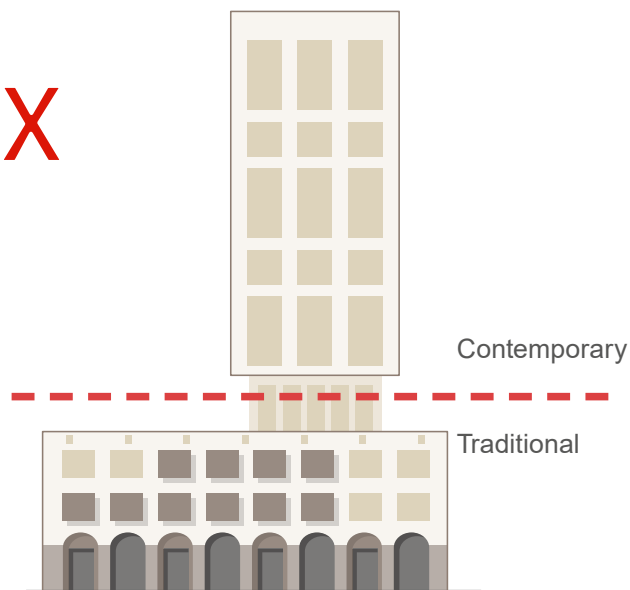
Mixing

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.

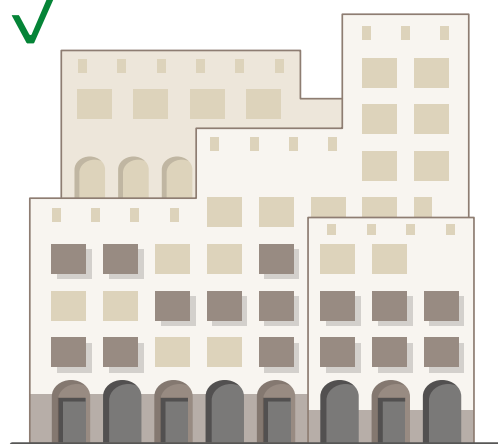
To propose a clear method for the mixing and blending of architectural characters.

X



Do not create hard breaks between mixed sources*

✓



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

FIG. 49 Appropriate mixing of sources

7 Worked examples

A set of design studies illustrating the application of the Inner Madinah architectural character to buildings, at different strengths and scales.



FIG. 50 Medium sized

7.1 Traditional

The traditional worked example features a very strong application of the guidance in sections 3 to 5. This is particularly evident in the tonality of the base and middle / upper levels, the framed facade and roshan design, generous parapets and presence of pop-up elements at roof level.

- 1 Framed facade with rectangular openings, shaded by timber elements and shutters.
- 2 Flat parapets with rectangular openings on axis with windows.
- 3 Pop-up elements on roof including outdoor rooms.
- 4 Dark gray basalt stone at the base with off-white render above.

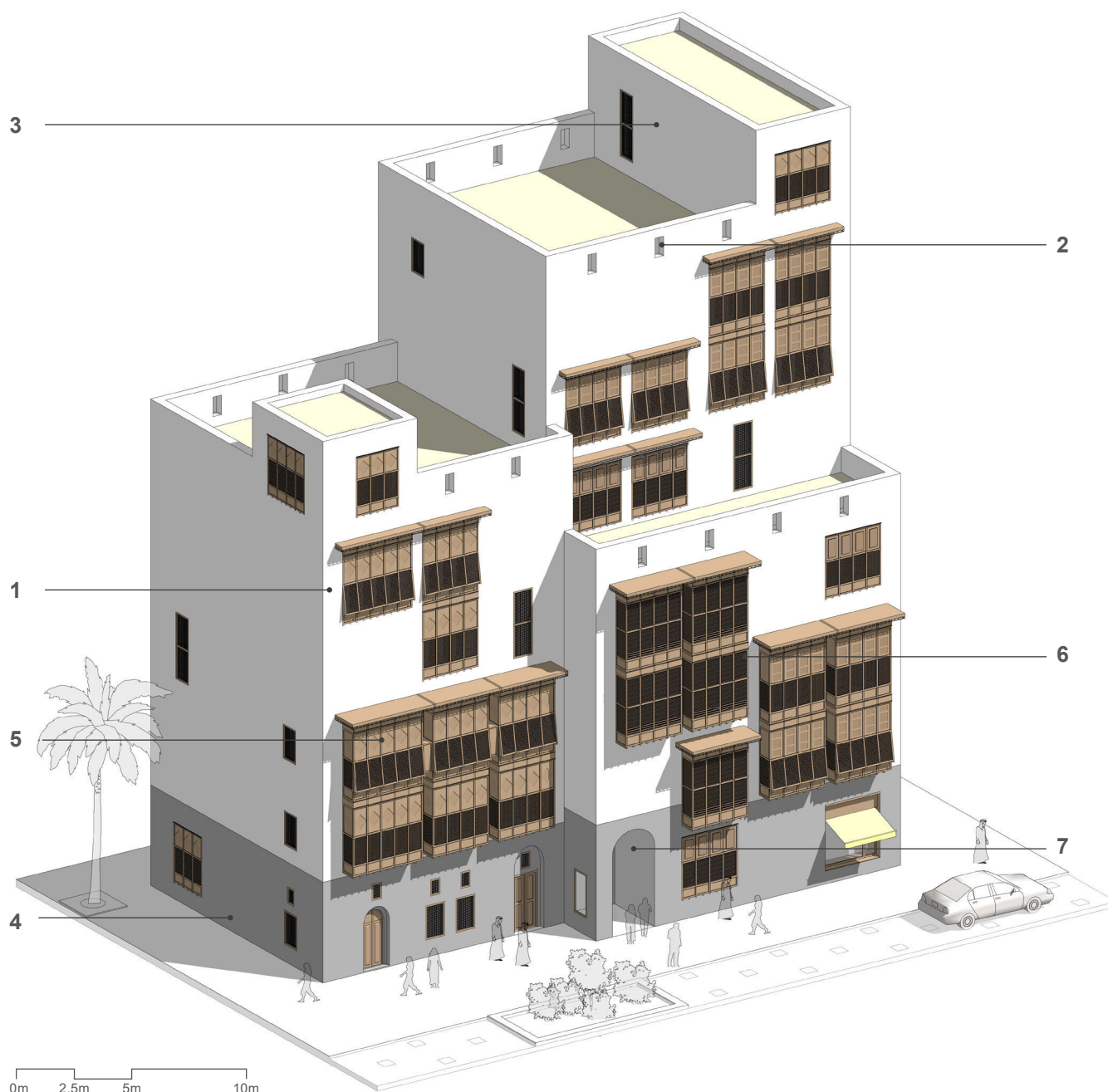


FIG. 51 Large sized

- 5 Vertical roshans incorporating upward openings and roshan eaves, creating elaborate projections. Vertical continuity between rows of roshan.
- 6 Rich detailing of roshans including repeating and alternating features.
- 7 Off-set arched doors and smaller openings in the base.

To create a strong connection and celebration of the Inner Madinah vernacular



FIG. 52 Medium sized

7.2 Transitional

The transitional model is a progression of the traditional form, without embracing all elements of the contemporary model. Many of the traditional features remain present, but some variations signal an evolution and reinvention of specific elements.

- 1 Overall form and proportions is consistent with the traditional character.
- 2 Approach to materials and color across base and upper levels reflects the typical character of the area with dark greys and off-white render.
- 3 Horizontal emphasis retained across repeating and alternating bays.
- 4 Roshans well-detailed but with greater replication across the facade. Presence of projecting features including eaves.

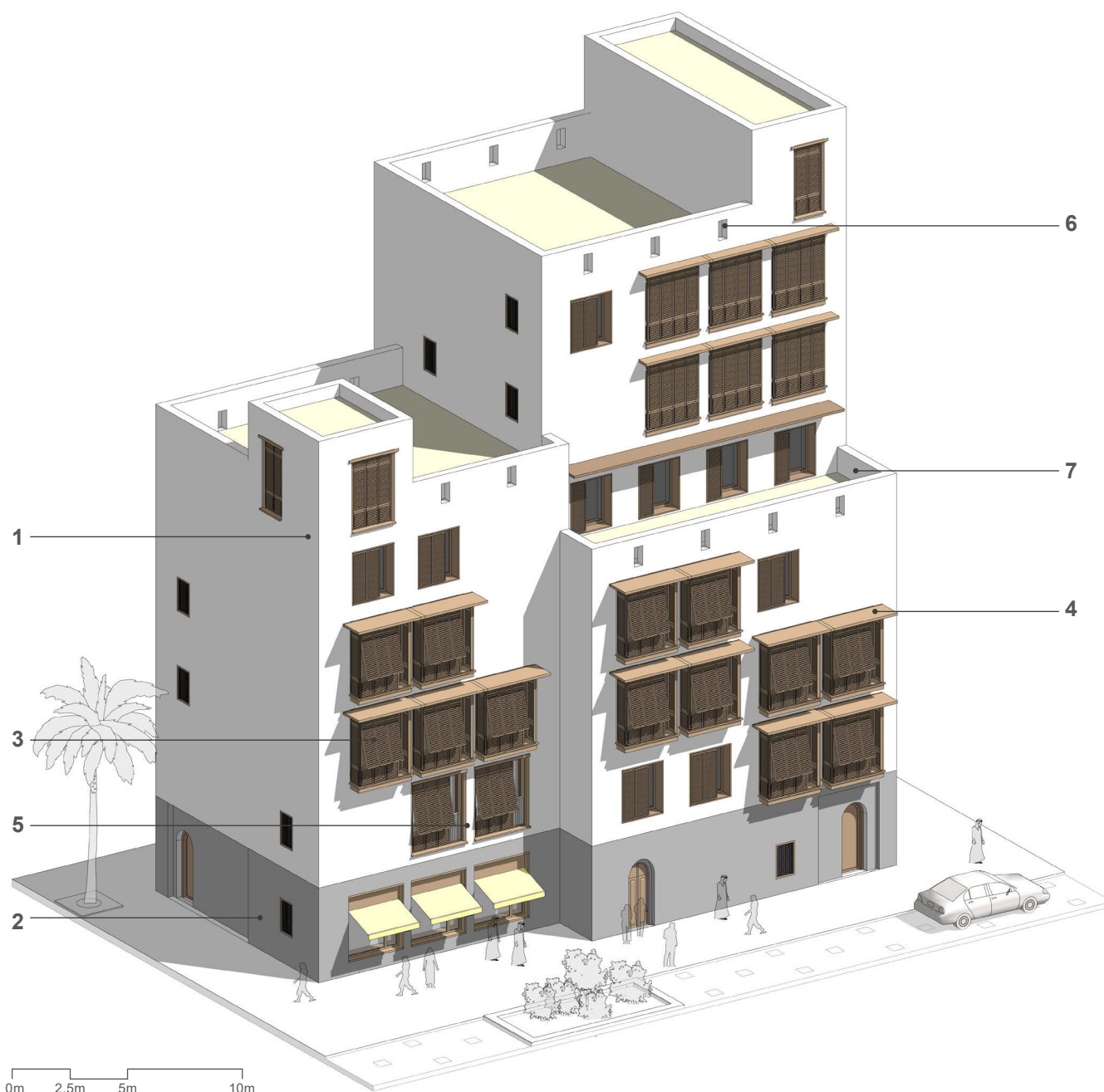


FIG. 53 Large sized

- 5 Deliberate introduction of gaps between rows of roshans to strengthen the frame of the building.
- 6 Small rectangular openings within a generous, flat parapet.
- 7 Parapets follow stepped massing across conjoined buildings, with occasional pop-ups at roof level to accommodate outdoor rooms.

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



FIG. 54 Medium sized

7.3

Contemporary

The contemporary model ensures buildings conform to modern regulations with regard to energy, safety and other building standards, relevant to all new buildings. The model seeks to reflect changes in construction and availability of skills and materials, and also incorporates adaptation to respond to modern ways of living and working.

- 1 Consistent form and overall proportions in line with the traditional character.
- 2 Dark gray base with off-white tones above as traditional style.
- 3 Strong alignment of bays across facade.
- 4 Projecting frames and contemporary upward opening shutters as a reinterpretation of traditional roshan features on lower three to four stories of building.



FIG. 55 Large sized

- 5 Simplified frames on upper stories.
- 6 Ordered, regular approach to openings in base of the building.
- 7 Rooftop inhabitation encouraged, with shaded terraces and concealed MEP areas incorporated.
- 8 Generous parapet area, stepped within conjoined building groups, with pop-up rooms on the roof to create a varied roofscape.

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 Inner Madinah.

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 Inner Madinah. 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. 56 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 Inner Madinah.

8.2

General character

The adjacent photographs summarize the typical characteristics of public realm and local landscape in Inner Madinah. As set out in the introduction, the character area is characterized by the meeting of the Harrat landscape and adjacent oases.

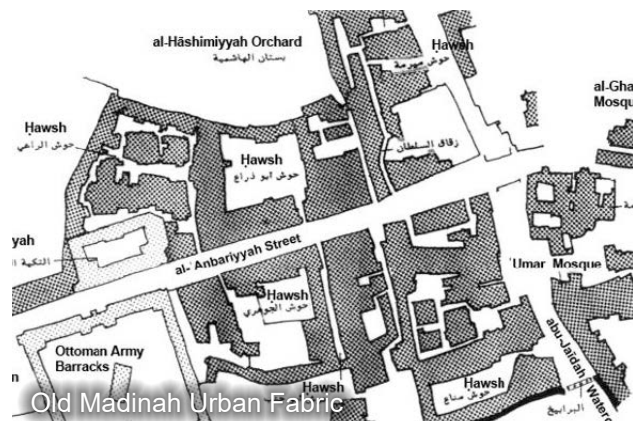
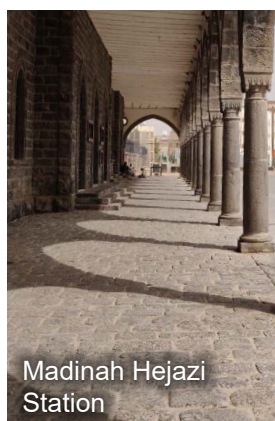
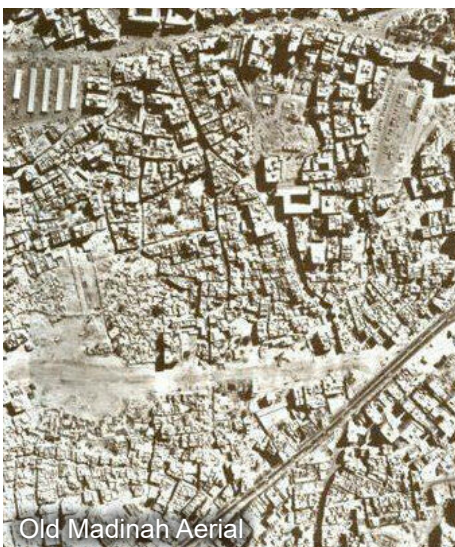
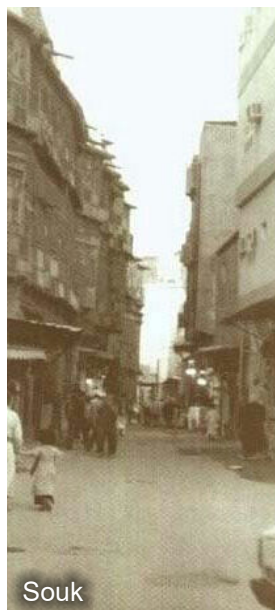


FIG.57 PUBLIC REALM

8.3 Types of public space

Inner Madinah'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 Inner Madinah.

The plan illustrates a typical hierarchy of urban spaces and streets in Inner Madinah.

The following spaces are considered to be the principal typologies:

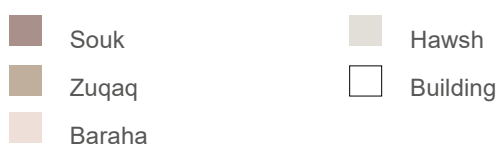
- Baraha: Medium sized spaces considered as the center of a community.

- Zuqaq: Local alleys of varying width and footfall which connect spaces and streets across settlements.
- Souq: The heart of trading activities arranged as linear streets across settlements.
- Hawsh: Smaller scale spaces which should support communities, providing informal spaces.

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



FIG. 58 Typical urban plan



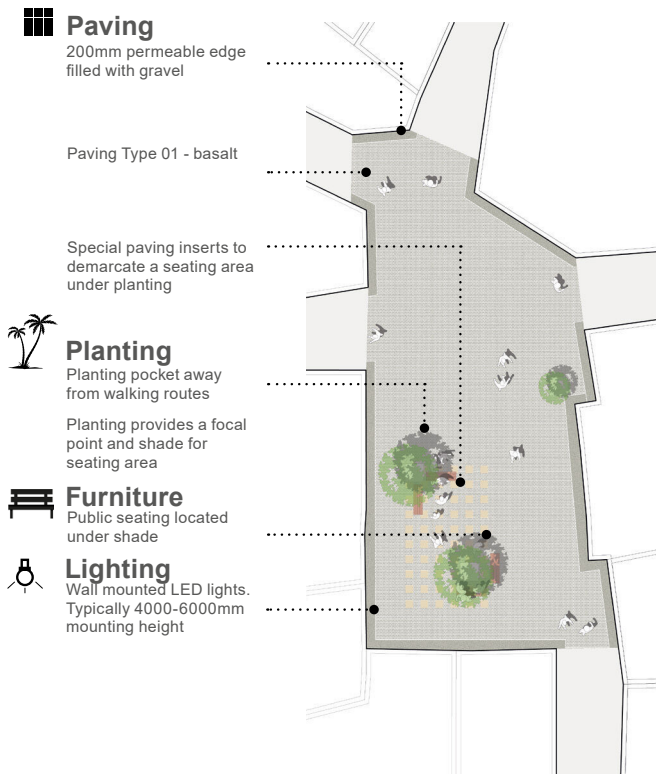


FIG. 59 Baraha

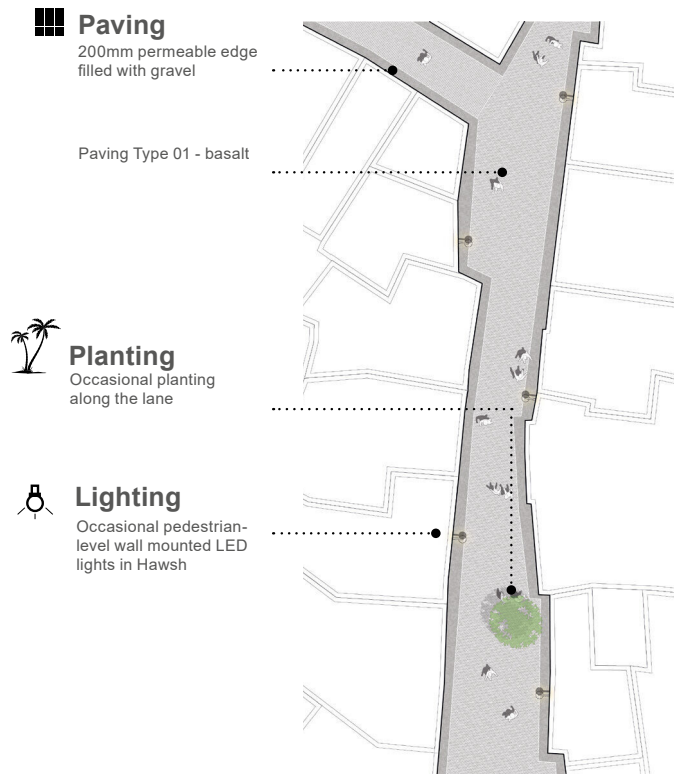


FIG. 60 Zuqaq

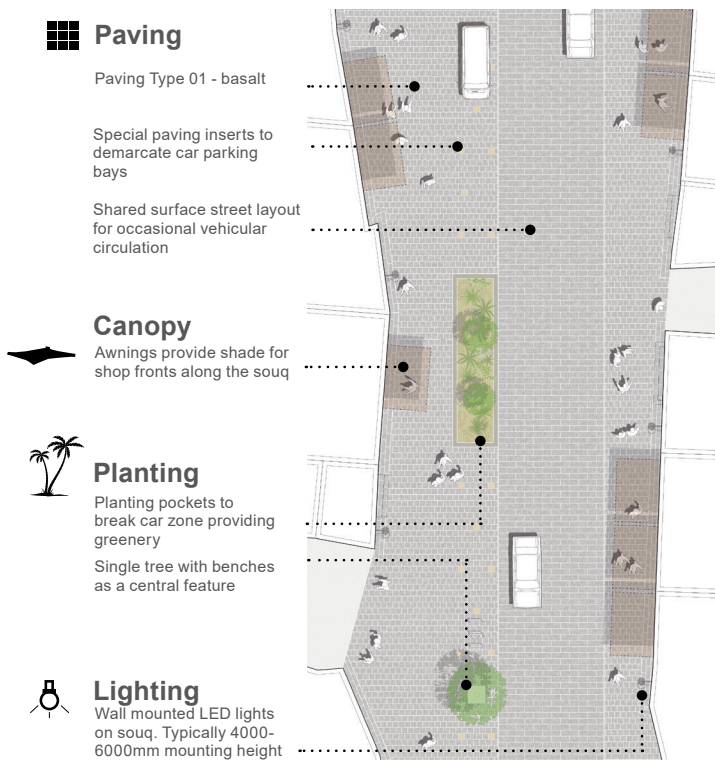


FIG. 61 Souq

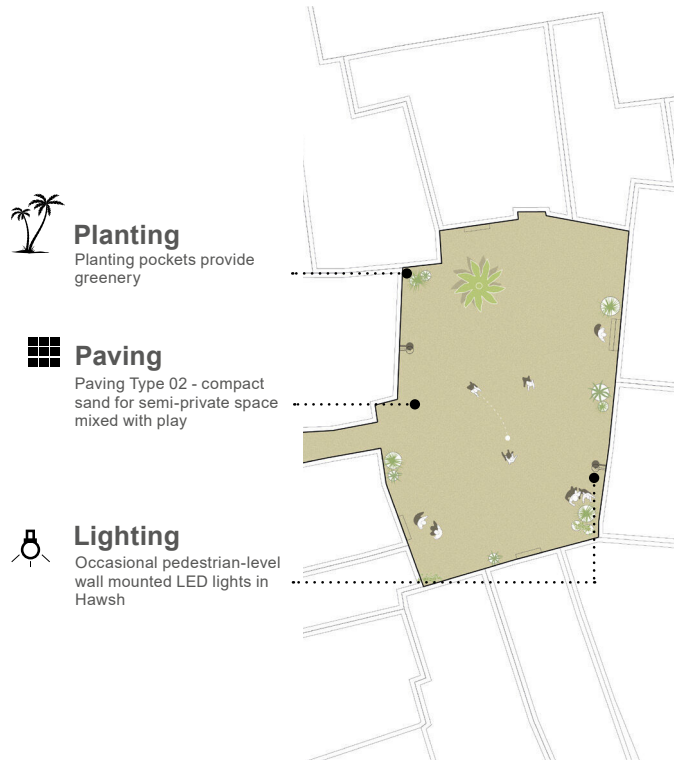


FIG. 62 Hawsh

8.4 Materials

The materials palette for Inner Madinah 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.

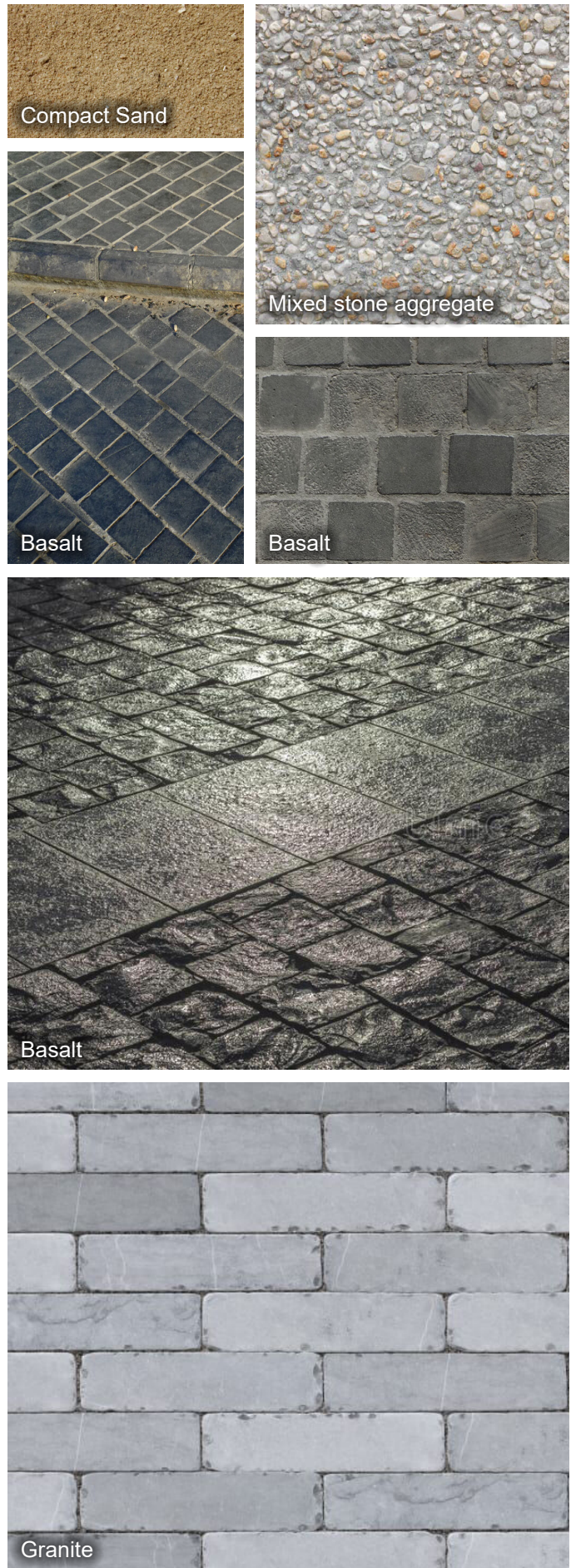


FIG. 63 Public realm material references

8.5

Planting

Tree planting should complement the overall character of the Inner Madinah 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

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 using the 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, etc.
- Understory and decorative planting should be minimized. If under story planting is 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.

Palm trees



Phoenix dactylifera
(Date palm)



Phoenix dactylifera (Date palm)

Shade trees

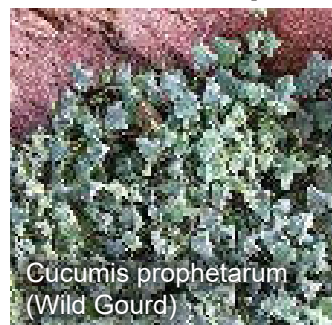


Doum Palm
(Hyphaene thebaica)



Moringa
(Moringa peregrina)

Ornamental species



Cucumis prophetarum
(Wild Gourd)



Lycium shawii (Boxthorn)



Capparis spinosa
(Common caper)



Lavandula coronopifolia
(Stagshorn lavender)



Cakile arabica
(Zamluq)



Pergularia tomentosa
(Pergularia)

FIG. 64 Planting references

8.6 Street furniture

Street furniture should be carefully selected to provide continuity and co-ordination, limiting clutter. Colors and style 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

- 1 Be distributed evenly across all areas with reference to space types above.
- 2 Not obstruct pedestrian movement nor clutter public open spaces.
- 3 Consider color and material consistency.
- 4 Be minimal in the public realm as traditionally was 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 have backs or armrests.
- 7 Be of high quality, coherent, and rationalized to minimize street clutter.
- 8 Have a co-ordinated appearance, with a consistent material and color palette to complement character.
- 9 Avoid duplication by rationalizing and combining elements.
- 10 Be easily maintained and repaired with replaceable components.
- 11 Be retained and improved where existing furniture has heritage value.



FIG. 65 Street furniture references

8.7 Lighting

A coordinated lighting strategy should create an appropriate and distinctive atmosphere for different areas to reinforce Inner Madinah'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 Sensitive 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.

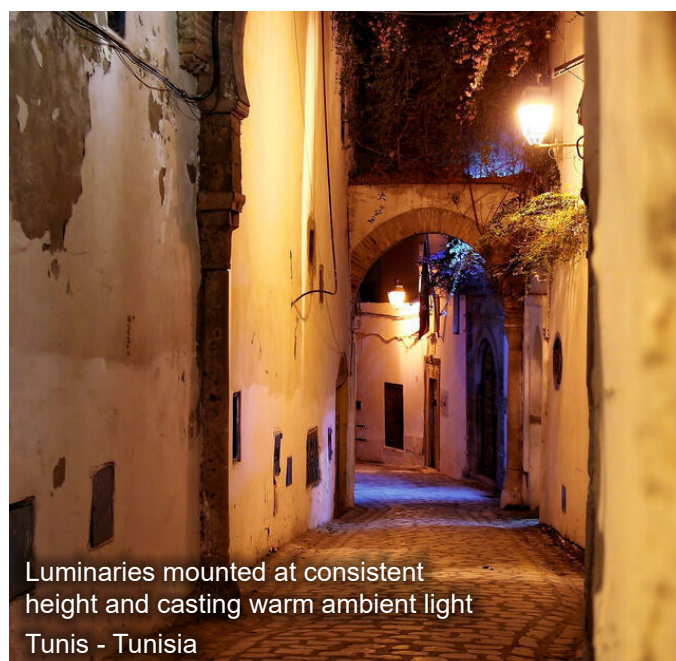
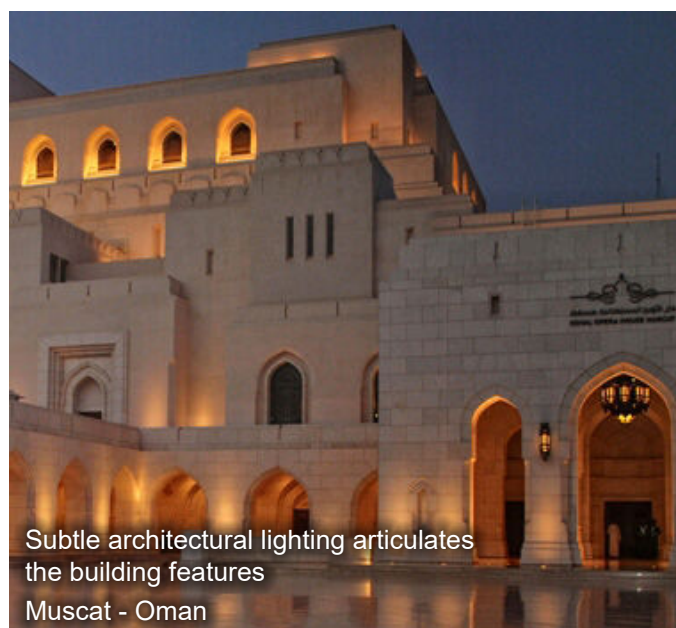


FIG. 66 Lighting references

8.8 Signage

Signage should play a vital role in supporting good wayfinding across settlements in Inner Madinah. 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 Inner Madinah.
- 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. 67 Text embedded metal



FIG. 68 Metal embossed sheet integrated with landscape

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.

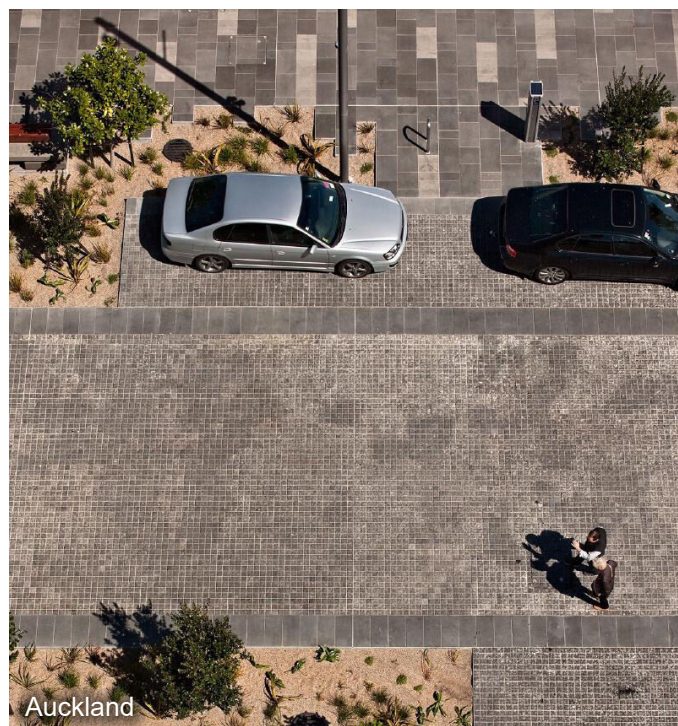


FIG. 69 Well-integrated parking bays

8.10 Public realm worked examples

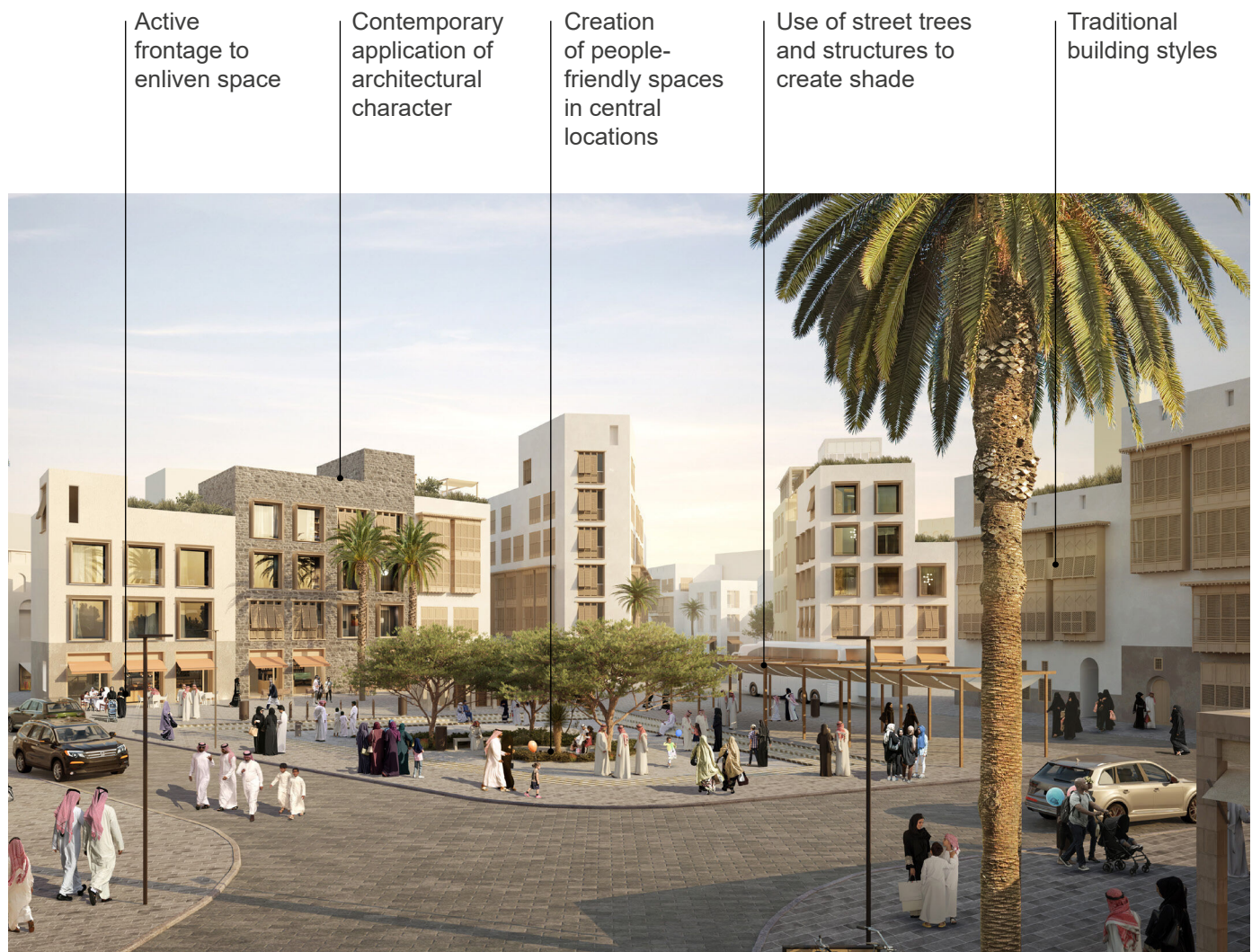


FIG. 70 Proposed view of large square in Madinah

The worked public realm examples above illustrate typical spaces in Inner Madinah. 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 Reclaim and restore the historic character of Inner Madinah, which has been lost through subsequent periods of redevelopment and growth.
- 2 Create spaces and streets which soften the dense urban environment of Madinah, creating a safe, comfortable experience.
- 3 Combine application of vernacular led architecture, with well-ordered streets to establish traditional neighborhood character in central Madinah.
- 4 Develop a pedestrian friendly, walkable environment.
- 5 Establish comfortable experience for residents and visitors, as part of a vibrant urban setting.
- 6 Reinforce a clear hierarchy of streets and

Intimate streets with shade and attractive character

Traditional buildings which transform the character of the street, alongside larger contemporary buildings

Views to significant local landmarks

Street trees to create shade and a positive sense of place



FIG. 71 Proposed view of local street in Madinah

spaces as part of a local network.

- 7 Use traditional local materials.
- 8 Create a range of scales of space, including larger public spaces, smaller neighborhood squares and tighter, well-shaded streets.
- 9 Adopt an integrated approach to the provision of street trees, planting and drainage features to create shade, and establish green, resilient places.
- 10 Coherent approach to the activation of key streets and spaces, identifying suitable locations for retail and leisure.
- 11 Embrace opportunities for public art to enliven space.
- 12 Careful application of architectural guidelines to create places with a suitable scale, and appropriate character.
- 13 Find opportunities to reinforce or create legible streets and wayfinding.
- 14 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

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