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Adaptation of heritage architecture in Al Asmakh, Doha: insights into an urban environment of the Gulf

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SUMMARY: This paper examines the continuing legacy and occupation of Doha's vernacular architecture of the early oil period, drawing on techniques from architecture, contemporary archaeology and anthropology. Historical and contemporary inhabitation is examined, as well as the experiences of today's resident migrant communities. The ongoing significance of Al Asmakh's vernacular architecture within Qatar's heritage discourse is considered. Particular attention is given to adaptations undertaken by today's multinational residents, and the role they play as custodians of Qatar's architectural heritage. This is a companion piece to the study of vernacular architecture by Eddisford & Carter (2017).

INTRODUCTION

In this paper we examine contemporary and former use of the surviving vernacular architecture of Doha, specifically examples of mid-20th century domestic housing which are still in use today, clustered in comparatively undeveloped districts of the old town. It is a companion piece to an article in a previous edition of this journal, which examined abandoned housing of the same period in Doha from an archaeological perspective. Both articles are derived from research enabled by the multidisciplinary research project *The Origins of Doha and Qatar* (henceforth ODQ), as well as from a recording exercise conducted by Qatar Museums (QM), the *Mapping Old Doha Project*. Here we not only consider this living vernacular architecture from the perspective of its original context

(private residential housing for Qatari families in 1950s Doha), but also the manner in which it has been maintained, adapted and appropriated over the decades. Adaptations and appropriations of these houses have been made in order to serve the modern social needs of their changing inhabitants, who are a portion of Doha's foreign migrant population today. Although many observers consider today's occupation and modification of these houses inappropriate and threatening to their original structure, we take an opposing view. While abandoned houses are left to collapse or are completely demolished for redevelopment projects, these occupied houses continue to stand thanks to the maintenance and adaptations of the migrant population, who have become their custodians. This research is the first study to compare the current and past utilizations of these neighbourhoods and the architectural elements present in them, by focusing on residents' patterns of use, adaptation and appropriation.

A harsh climate, tribal organization, reliance on the sea and a trade-dominated economy have been the chief determining agents of urban form throughout Doha's history.² Although natural factors have been tamed, social factors are still in transformation as a result of the change in Doha's economy since the 1950s and the transfiguration of the built environment is more rapid than ever. Before the first shipment of crude oil on the last day of 1949, Doha was dependant on fishing and pearl-diving and had a population that did not exceed 12,000.³ Doha's oil and later gas wealth paved the way for substantial urban and infrastructural development that required large-scale labour migration.⁴ By April 2015, the population of Qatar reached 2,404,776, with Doha Municipality alone accommodating 956,457 residents, and 89.9 % of the total residents in Qatar are estimated to be foreign nationals.⁵ The majority of these migrant workers come from South Asia and can be categorized as low-income, which makes it impossible for them to bring their families to live in Qatar.⁶ In the 2015 census the male population outnumbered the female with a ratio of 3 to 1.⁷ This social

composition, with an extreme number of male foreign migrant workers, has brought about legal, social and spatial distinctions between low income foreign nationals and Qatari citizens, today manifested clearly in residential segregation. While the majority of this male foreign migrant population live in labour camps situated in industrial zones (60% of the entire population residing in Qatar and 74.1 % of all resident men including Qataris according to the 2015 population census in Qatar), depending on their contracts and income some prefer to live in low-cost housing in the city centre, either in apartment buildings or in older houses converted into shared units.

This study focuses on the older neighbourhoods in central Doha which were constructed in the 1950s during the early oil era and left by their original inhabitants in the 1970s-1980s. Qatari departure was encouraged by land and housing grants given to Qatari citizens that allowed them to move to designated low-density housing areas on the outskirts of town, coupled with the influx of foreigners to the neighbourhoods. Pockets of old Doha's vernacular architecture and urban morphology have persisted in certain districts within today's modern city centre, hidden behind taller commercial buildings. We use the term 'vernacular' for the architecture of these neighbourhoods developed in the 1950s on account of their informal or semi-formal planning, and the manifestation of architectural elements and forms (courtyard houses) which can broadly be described as 'traditional', notwithstanding the incorporation of modern building materials (e.g. cement blocks) and occasional exotic decorative elements, which were new to Doha in the early oil era. 12

Although clear signs of central planning were evident in certain districts as soon as the early 1950s, it was not until the 1960s that official governmental bodies were established to make decisions about Qatar's built environment.¹³ Moreover, despite the introduction of new materials and building techniques, which ultimately had a major impact on the transformation of private building typology (the introduction of freestanding integral-volume villas

surrounded by walls; apartment buildings; and eventually skyscrapers), archaeological evidence and aerial imagery of the 1950s shows a rapid expansion of buildings that follow traditional architectural form, particularly unified courtyard houses modelled on elite homes of the pre-oil era.¹⁴ In this article, we use the term courtyard architecture for all the yard-oriented house types regardless of their mode of enclosure on the sides either by a wall or a building volume.

Today, these clusters of surviving courtyard houses, built in the early oil era, present echoes of pre-oil urban structure and architectural form, mixed with appropriations reflecting modernization, multiculturalism and the domestic life of foreign migrant workers in Qatar. These districts blur the distinction between the pre-oil and post-oil eras, commonly held to be separated by a sharp division in terms of economic history, demography and social life, and reveal the complexity and continuity inherent in the constantly evolving city.

AIMS

A primary aim of this study is to examine and compare the current and initial utilization of these houses. Here we compare approaches to cohabitation and use of space by communities with very different historical circumstances, social organisation, and relationships of kinship, namely Qatari extended families in the 1950s-1970s, and subsequently groups of migrant workers, primarily from South Asia. Within this aim we can additionally begin to explore the meaning and significance of these heritage buildings, both to their current occupants and to their former Qatari inhabitants.

A second aim is to demonstrate how current occupants have adapted space in a dynamic and transformative manner, leading to familiar questions such as those raised by architectural thinkers, e.g. to what extent does the built environment affect, guide and constrain behaviour; and to what extent is built environment is shaped by activities?¹⁵ This dynamic and reflexive

relationship with the built environment is also well recognised by archaeologists, 16 and is directly relevant to archaeological questions surrounding re-use and adaptation of architecture. Within this aim, we explore the availability of new construction materials, technologies and utilities (i.e. electricity, air-conditioning, piped water), which opened new possibilities for architectural adaptation for a population with limited income. Here we must recognize that the new technologies and utilities came into use during the Qatari occupancy of these houses, but had ongoing importance for subsequent inhabitants' use of space. This brings us to the third aim of this study: to identify the domestic and architectural practices of this population by looking at the details of their everyday lives, and their strategies for coping with limited space and means within a diasporic domestic environment. By illustrating their experiences, we aim to add dimension and detail to our understanding of communities who are otherwise stereotyped, pitied or problematized without close consideration of their agency and circumstances. The complex issues surrounding multiple occupation of historic architecture are not unique to Doha but are replicated in many other cities of the GCC region, and beyond, and we intend that this case study will open avenues of debate on authenticity, preservation and custodianship of heritage architecture that will find wider relevance elsewhere.

Finally, we aim to fill a void in existing research, which has not explored the architectural impact of Doha's migrant population on its older neighbourhoods. The architecture of Al Asmakh and similar neighbourhoods in Doha (Old Al Ghanim, Al Najada, Al Hitmi, Msheireb) has previously been studied from an archaeological perspective by UCL Qatar's *ODQ* project, and from a conservation perspective by QM. ¹⁷ Furthermore, in 2014 QM carried out the *Mapping Old Doha Project*, which included partial visual recording of the exterior and interior of properties in the neighbourhoods of Al Asmakh, Al Najada, Al Hitmi and Al Ghanim. ¹⁸ Moreover, urban regeneration projects have been developed for Old Doha

and Al Asmakh, by professional architects and academics, as well as in open competition (*The Old Doha Prize*, a design residency and competition organised in 2013 by the British Council and QM). However, although there exists an examination of space in the peripheral main streets of the district, on existing research studies and compares the current and past utilizations of these neighbourhoods and the architectural elements present in them, and none focus on residents' patterns of use and adaptation of internal spaces.

METHODOLOGY

The main area of focus in this paper is the neighbourhood of Al-Asmakh, which lies in a strategic location next to the former historic core (now redeveloped) and the governmental and commercial areas of Doha city centre, and adjacent to the neighbouring mixed-use urban redevelopment project, Msheireb Downtown Doha.²¹ While the main focus of the article is Al Asmakh, comparative reference to other neighbourhoods in Doha will be made throughout the article.

One of the distinctive qualities of Al-Asmakh, compared to other neighbourhoods with extant vernacular architecture, is the concentration of surviving buildings with current occupation. Redevelopment projects have recently begun in Al-Asmakh's northern part, which gives an urgency to this study. Another differentiating aspect is its informal urban plan, one of the characteristics of the pre-oil urban morphology, as opposed to the grid plan which appeared in the years immediately following the apparently spontaneous construction of Al-Asmakh. This adds distinct physical and social attributes to neighbourhood life which will be discussed later in the article.

Our primary research is built upon site and building observations, visual recording, photographic recording, and semi-structured interviews with both migrant residents and Qatari locals. Additional data and images from QM's *Mapping Old Doha Project* have been

incorporated into this article. The QM archive includes photographic recording and architectural categorization of around 40% of Al Asmakh with varying levels of completeness depending on the ease of access to the buildings.

In parallel, analysis of historical maps and aerials collected by *the Origins of Doha and Qatar* project for 1947, 1952, 1953 and 1959 has enabled analysis of the growth and development of Al Asmakh, as well as approximate dates of construction for the investigated houses, and their initial configurations.²²

One of the authors of this study (GK), an architect and PhD candidate with a particular focus on ethnography and domestic use of space of foreign migrant workers in the Gulf, visited the neighbourhood eight times between October-December 2015 and April 2017. The disadvantage of being female in a male-dominated neighbourhood, potentially involving mutual feeling of discomfort, was overcome by the presence of a male colleague who accompanied GK during all visits to the site. At no time did the researcher feel or observe any signs of unease during the interviews and documentation. During some visits, two acquaintances who spoke several of the languages used in the district (see below) accompanied them to the neighbourhood, and occasional visits to the site were made by the other author (RAC). Everyday life was observed and recorded, as well as the urban and architectural characteristics in the neighbourhood, through photographic recording of the houses and interviews with their residents. The goal was to record and interpret how the residents build, repair, use and live in the various spaces in these houses, as well as to understand daily life in the neighbourhood within the heritage houses.

When GK and companions visited the neighbourhood they were sometimes spontaneously invited into a house, whereupon the research was explained with the aid of a project factsheet, and consent requested to record the architecture and use of space. Only once was consent to enter refused.²³ The choice of houses visited was therefore based on convenience

sampling, being partly determined by the presence of houses with open doors and people at their entrances, as well as interest and conversations struck up in the streets. Owing to the potentially vulnerability of migrant residents in Qatar we have provided anonymity to our interviewees.

Most of the current residents encountered in the neighbourhood are Indian, Bangladeshi, Pakistani, Sri Lankan and Iranian, and in some cases assistance was required for communicating in languages other than English. In these cases, the most common solution was to find a resident inside the house or in the neighbourhood who could speak English and volunteer to translate the conversation. As a result of this, several times the translator became the interviewee due to his competence in explaining domestic life in the house and the purposes behind the architectural adaptations.

In two of her visits GK was assisted by an acquaintance from India residing in Qatar who speaks English, Arabic, Hindi and Bengali, thanks to his several years of work experience in the Gulf. On another GK was accompanied by an acquaintance from Bangladesh who lives in the neighbourhood of Al Najada and spoke Arabic and Bengali. While their assistance with the translations gave GK more flexibility in choosing her interviewees, inevitably their presence provided an additional informant in the verbal transfer of the original information to the researcher. The risk of miscommunication when passing through informants, interlocutors and researcher was reduced by the tangible presence of physical spaces and products, allowing visual confirmation of the informants' statements.

Oral histories of a Qatari interviewee who previously lived in a similar neighbourhood contributed to the understanding of the domestic life, construction and use of space inside these houses by their initial residents. Previous interviews with Qatari former residents of Al-Asmakh and contemporary districts, particularly published by Sharon Nagy, were also useful ²⁴

AL ASMAKH NEIGHBOURHOOD

Al Asmakh neighbourhood comprises an area of 30.7 hectares, in a district of Doha which was only minimally occupied before the coming of oil revenues in 1950, with just four of five houses in its north-eastern corner, ²⁵ but which rapidly urbanized to fill its current boundaries by 1959 (Fig. 1). ²⁶

Unfortunately, due to an urban revitalization project taking place in the north section of the neighbourhood, the area available for study in 2015 and 2016 was limited to 10 hectares (Fig. 2). However, the visual data shared by QM's *Mapping Old Doha Project* (2012-2014) covers an area of thirteen hectares, including the north section of the site. We estimate the total number of residential units in whole neighbourhood to be approximately one hundred and fifty units, with approximately one hundred of them being in the area of this study. The far southern part of the neighbourhood was found to be irrelevant for the purpose of this study, consisting of a large car park (formerly a graveyard), a petrol station, a hotel and a commercial building.

GK visited six houses in the neighbourhood (ca. 6% of the houses in the accessible zone and ca. 7% by area). Although they are diverse in size and character, all the houses visited have either a courtyard or an outdoor space in their configuration. Three of them are large houses in comparison to the average floor area in the neighbourhood, while the other three are more moderate in size. The houses have a footprint of 760 m², 370 m² (two of them), 200 m² and 145 m² respectively (measured using Google Earth). The largest one of 760 m² has two courtyards with some sides enclosed by walls and other sides flanked by one or two-storey building volumes. The houses of 370 m² each have one courtyard, both surrounded by two-storey building volumes on all four sides. The one of 200 m² floor area has been divided into separate units on the ground and first floor; GK was invited to explore only its first floor

thoroughly, which occupies an area of 80 m². Finally, the house of 145 m² has the form of a two-storey apartment with a small garden and a terrace in the front and an open space at the back. For reasons of privacy we do not show the locations of these houses.

LOCATION AND HISTORY OF THE BUILT ENVIRONMENT OF AL ASMAKH

The story of Al Asmakh goes hand in hand with the tremendous expansion of Doha,
originally a small fishing and pearl-diving town.²⁷ In the early 1940s Doha had a population
of at most 10,000 and perhaps as few as 5,000. However, 1947 was a turning point with the
recommencement of oil extraction following suspension of activities during World War II,
and with the first commercial shipment of oil leaving Qatar on the last day of 1949.²⁸ The
1950s saw the beginning of a population and construction boom at the start of the transition
to an oil-economy, where new relations of production, division of labour and methods of
wealth distribution emerged, albeit within existing and persistent social and political
frameworks.²⁹

Aerial images from the years 1947 and 1952 reveal that the neighbourhood of Al Asmakh was completely built up between 1952 and 1959 (Fig. 1). Significantly, during this construction period there was no government body or formal policy for planning new housing in the emerging city. Rather, there was continuing direct involvement of the ruler in allocating lots for houses with size and locations determined according to the social and political position of Doha's residents.³⁰ The new housing areas were built under conditions of minimal regulation. Moreover, metalled roads, electricity and piped water had yet to be introduced at the time when the houses of the study area were built.³¹ Despite the influx of oil money which stimulated their construction, they were therefore designed under the physical and climatic constraints that pertained to the pre-oil era. Thus they can be regarded as the

among last expressions of pre-oil architectural typology in Doha, albeit incorporating new building materials to varying degrees.

Further rapid expansion occurred in the 1970s, after the declaration of Qatar as an independent state, and when surging oil prices stimulated an acceleration in the expansion of the built environment, this time with the consultancy of Western planners.³² One of the strategies suggested by the British-based consultant Llewellyn-Davies was for the government to acquire and clear the privately owned central areas of the city, with the intention of redeveloping the core for high-density commercial areas. However, the funds allocated for acquisition and redevelopment were quickly depleted during the acquisition process, and the government's planning priorities soon shifted to other projects. In 1979, the American firm Shankland Cox Partnership was asked to redesign the city centre, and they recommended relocation of industries outside the city, with the centre to be occupied by commercial and governmental buildings as well as high density foreign migrant housing. The aim of the suggested density increase in the city centre was to maximize the number of residents with access to facilities and employment in the centre, thus minimizing traffic movement. Due to the general preference of Qataris and higher income foreigners for lowdensity developments, it was assumed likely that the residential areas of the city centre would be occupied by low-income foreign migrant residents.³³ This assumption proved to be accurate for the residential population of Al Asmakh neighbourhood. Commercial buildings on the other hand, occupy the perimeters of the neighbourhood, which surround the remaining inner residential core.

No part of the Al Asmakh neighbourhood was included in the land acquired by the government during the 1970s, but it was directly on the perimeter of the central zone allocated for redevelopment. Government acquisition of land in central Doha at inflated prices apparently caused an increase in real estate values and speculation, accompanied by an

overall relocation of Qatari citizens to new outlying suburbs.³⁴ Those Qatari families that did not initially move out held on to their properties but relocated nonetheless during the later 1970s-early 1980s, renting out their houses to multiple occupants and benefitting from the rise in rental costs in the centre. A Qatari interviewed by Nagy in the 1990s explained that his father still owned a family house on Al Asmakh Street, which had been divided into small units and rented to South Asian labourers.³⁵ This pattern of ownership and occupancy has persisted in most or all of the older residential buildings of Al Asmakh up to the present day, with Qatari-owned buildings mainly occupied by low-income migrants from Bangladesh, Sri Lanka, Pakistan, Iran, and India (Kerala in particular). Some of our interviewees stated that they preferred this crowded but independent mode of accommodation to that provided by large companies in purpose-built new accommodation for workers on the outskirts of Doha today. None expressed a preference for the latter form of accommodation.

The outcome is the existence of enclaves of old buildings in the heart of modern Doha, densely occupied by low income workers, mainly from South Asia. The initial Qatari inhabitants and their descendants are currently alienated from these districts and rarely or never venture into them, and likewise high-income migrants from the west and other parts of the Arab world. The foreign migrant population is overwhelming in number and is often perceived as threatening by the Qatari nationals, owing to their foreign customs and low social status. Socio-spatial segregation is among the solutions resorted to overcome this perceived threat.

In February 2014, the Private Engineering Office (PEO) of the Amiri Diwan, which had previously completed the redevelopment of the old market, Suq Waqif, purchased the north-eastern part of Al-Asmakh (between Al Maymoun and Wadi Musheireb Streets), and closed it off for reconstruction.³⁷ The western part of Al Asmakh (between Abdullah Bin Thani and Al Diwan Streets) was also enclosed for future redevelopment at a later date. The residents

moved out and the area remains closed to visitors at the time of writing. The north-eastern part of Al Asmakh is significant due to its close proximity to Suq Waqif and Msheireb Downtown Doha, which is a mixed-use urban redevelopment project with an assertive intention of becoming the 'Renaissance of Doha' in terms of architectural language. Although the content of the redevelopment projects in Al Asmakh have not been stated officially, it is said that it will be a revitalized area similar to Suq Waqif in terms of recreating the 'traditional' architectural character with new commercial functions.

THE URBAN FABRIC OF AL ASMAKH

The sequence of the description and analysis below follows the experience that a visitor to the neighbourhood would experience: it starts from the peripheral main streets with taller commercial buildings that conceal the inner urban fabric defined by narrow and winding alleys. These alleys then lead the pedestrian to the thresholds between the public and semi-private realms: the entrances of the courtyard houses. The architecture of these introverted courtyard houses, which in Doha tend to be unadorned on the outside, high-walled and designed to prevent sight of the interior from the outside, has been interpreted as the architecture of the veil, where the plain exterior envelope deliberately hides the detailed interior space and the privacy of its inhabitants.³⁹

The architectural promenade continues into the inner space of the courtyard house, formerly private but now semi-private due to multiple occupancy, and concludes with the private bedrooms of the residents. Throughout this paper, persistence and change in the utilization of these houses is explored in relation to past and current patterns of inhabitancy.

The hidden life of Al Asmakh today is concealed by the surrounding taller, commercial buildings and hotels on the perimeters of the site that can reach up to twelve stories. While some of these modern buildings distinguish themselves from the present urban fabric with

glass and composite panel facades, others come into sight in more modest forms such as three storey apartment buildings, embodying reinterpretations of some of the decorative features of Gulf architecture such as window grills with geometrical carvings used on the façades, which accommodate vertical circulation (Fig. 3).

The ground level façades of the neighbourhood's perimeter abound with colourful signboards of Indian coffee shops, restaurants, laundries, hairdressers and furniture shops, unless there is an entrance to an apartment, hotel or a mosque. Upper levels, on the other hand, reveal the colourful clothes of their inhabitants, which are seen in more detail once one enters the inner streets of the neighbourhood. In the meantime, the owners of the clothes can be observed gathering on the streets, creating their personal spaces within the alcoves provided by architecture and street furniture, perhaps talking by phone to their families back home, or coming out of the Friday prayer (Fig. 4).

As one proceeds inside the district (known in Doha as *al farīj*, pl. *firjān*) the scale is reduced, with narrower streets that do not allow cars to pass, and the building heights become lower to allow for only one or two storey dwellings (Fig. 4, Middle). The compactness of the urban fabric is considered to be a characteristic of the Islamic townscape, which not only moderates the microclimate by maximizing shaded areas and allowing convection currents to run through the narrow lanes, but also satisfies social values of religion, privacy and extended family. Within the district, homes often share party walls, and narrow lanes and alleys (locally named *sikkat*, s. *sikka*) separate the blocks of homes from each other. During the Qatari occupancy *sikkat* are said to have served as semi-public spaces belonging to the residents of the same neighbourhood that ensured strong social ties and allowed face-to-face interaction with each other. In similar districts elsewhere in the Arab world, it is said that gender segregation rules could be partially relaxed among the inhabitants of the district when within its boundaries, as if notional kinship ties existed even if blood relationship could not

be demonstrated.⁴¹ Although its inhabitants have completely changed and become ethnically diverse, the perception of semi-privacy was still felt by GK and her companions during their visits to the neighbourhood. Frequently the inhabitants, who are not used to visitors from different socio-economic groups, particularly females, stared at the researchers with astonishment and approached to them to understand what they are doing in the neighbourhood.

Historically, narrow alleys had their own co-operative order where the residents of the houses kept them clean. Furthermore, the proximity of the houses and narrowness of these winding streets provided safety and security for the residents. It was said to be easy to pursue wrongdoers and thieves in Doha since the inhabitants of the *farīj* knew the streets inside out. For an outsider, on the other hand, it is easy to get lost in the winding alleys, since they look very similar to each other, with tall walls and only a few openings, and long unadorned façades (Fig. 5). Although collective maintenance and cleaning of outdoor spaces is now limited (see below), trust among the inhabitants is still observed today, both in the neighbourhood and within the houses themselves. Despite the multitude residing in the neighbourhood, it is very common to see personal belongings exposed without fear of theft or damage (e.g. clothes drying on exterior building façades). Moreover, it is very common to see the house doors wide open.

The points of reference for an outsider in the narrow *sikkat* of Al Asmakh are the minarets of the mosques, significant entrances and doors to the houses, and at times the windows of the *majlis*, which is located next to the entrance of the house and is the only room with windows facing the street at ground level. The *majlis* is a semi-private meeting room accessed and utilized only by the male residents and visitors, which still keeps its significance in modern Oatari houses.⁴³ Memorable wayfinding points for a wandering outsider also include trees,

which are limited in number, as well as both wall-attached and free-standing sitting areas, and significant additions made to the houses.

Decayed walls, where patches of mud or cement render have been stripped off to expose the walling, and the windows of former *majlis* rooms blocked by pieces of fibreboard due to their current functions as sleeping quarters, are common scenes in these alleys (Fig. 5). Other prevalent components are the air conditioning units (Fig. 6). There were not part of the original 1950s-1960s constructions: although electricity was available in parts of Doha in the mid 1950s, it did not reach many areas until the 1960s-70s, and it was not until that time that air conditioning was a feasible option for many inhabitants.⁴⁴

Today, these improvised and individually mounted air-conditioning units are an endemic addition to the predominantly plain facades, and not only in the older districts such as Al Asmakh. While some of them are placed inside existing window openings which are no longer used for natural ventilation, others are placed into holes cut crudely into the walls. In many cases these cuts reveal the manner and material of wall construction. While walls made of stone and mud are able to accommodate the overall depth of a unit due to their relatively thick cross-section, walls built with later construction materials such as cement blocks cause the units to fall out, due to their thinner cross-section. Temporary solutions to support the weight of these units can be observed in the shape of wooden posts or building blocks.

Another common feature around the air-conditioning units is their co-existence with plants.

Often a plant grows next to the water outlet of a unit, benefitting from this supply of moisture in the hot climate of Qatar.

Air conditioning units have become an expected element of comfort during the harsh summer months of Qatar, and are fundamentally important within the crowded living conditions of neighbourhoods such as Al Asmakh (though we note the survival of the initial inhabitants without air-conditioning in the same climatic conditions). However, the continuous heat

emanating from today's air conditioners raises the temperature inside the *sikkat*, while water spilling from the units runs down the streets, which do not have a proper drainage system and are not well maintained by the current residents. This is probably due to the lack of ownership and the feeling (and reality) of temporary occupation in the neighbourhood. This situation changes inside the houses, however, which have their own self-imposed rules, devised by their residents to maintain order in a context of collective living.

CONTEMPORARY STREET SCENES IN AL ASMAKH

Within the *sikkat* and open spaces of the inner district one encounters couches, mirrors and permanent spots to hang clothes. On Fridays washed work clothes are exposed, adding a human and intimate feeling and reflecting the occupancy of the interiors of the houses that accommodate four or five people per room. Small plazas, originally called *baraha* (pl. *barayah*), used for social interaction between the original residents of the neighbourhood, are still utilized. Temporary stalls are set up opportunistically to provide fresh vegetables and fruits. Residents crouch in the shade of the few trees found on the streets, as well as along the shady sides of the walls, in order to create private time in the shade with their cell phones, since the houses can get overcrowded, especially on Fridays. Another place of both privacy and socialising is the rooftop. People can be seen sitting alone or in groups, talking on the phone, watching the passers-by in the alleys, or chatting with each other (Fig. 7).

Rapoport's description of urban districts in India, whose inhabitants constitute a major proportion of Al Asmakh population today, can as well be used to describe Al Asmakh's urban fabric and street life:

Narrow, shady streets become full of life as they serve some social functions. Streets in Punjab, for example, link the three elements of the village-house, temple or mosque, and bazaar. Widening in the streets provide room for a small tree or a well,

around which a storyteller or small market will set up shop and help the street serve a social function.⁴⁶

Here we note likely similarities between current and original uses of open and semi-private areas in Al Asmakh that cut across time, space and ethnicity. The chief difference, we expect, would be the comparative absence of children today, who are now rare in the streets as few of the inhabitants have resident families, whereas children are said to have spent much of the day playing and socialising outside during the Qatari occupancy.⁴⁷

THRESHOLDS AND DECORATIVE ENTRANCES

The doorway bears a highly symbolic meaning on account of its function as a threshold between the private and public domains, and an entrance to the domestic realm. For Islamic societies, where the privacy of the household is of great importance, doors are tools of both access and security. In order to prevent a line of site into the family compound, entrances on opposite sides of an alley would not face each other, and it was customary to have either a bent-axis entrance or a screening wall placed not far from the inside of the doorway. Men visiting the house who are only allowed to enter the *majlis* located next to the main gate would not disturb the privacy of the women inside the courtyard. Today, along with the changes in demography and use of space inside the houses, privacy patterns have changed. The *majlis* is now commonly used as a private (yet shared) bedroom, while the courtyard has become a common space that serves the ethnically diverse mixture of inhabitants. Although most of the time the gates remain wide open, the narrow corridor created by the building volumes on either sides of the gate and the bent-axis entrance prevent direct visual access into the courtyard (see below).

Doors carry a special aesthetic significance in Islamic societies. Apart from the windows of the *majlis*, they are the sole elements of representation of a household among the high sealed

walls of a compound. Traditional doors in the Gulf region were made of wood and iron, with parts of them manufactured locally and other parts being imported from India, East Africa, Iraq or Persia due to the scarcity of wood sources in the peninsula. They would be decorated with geometric and plant patterns and would often incorporate a wicket door, *farkhah*, at the height of a person. ⁴⁹ In the neighbourhood of Al Asmakh the wooden doors can be counted on the fingers of one hand, since metal doors were introduced to the building market in the 1950s. ⁵⁰

Some of the entrances in the neighbourhood are further emphasized by decorative elements, and transformed into monumental portals (Fig. 8). Typically, these are framed by decorative, non-structural columns placed on their two sides, joined by a lintel. The recessed door situated between the frames can further be decorated by plasterwork and recessions on the raised partitions above it. Moreover, the raised partitions above the doors sometimes accommodate elaborate decoration, including pointed merlons and crenellations on their top, where the wall touches the sky. Such crenellations, known as *shurfat* or *mosnanat*, are well known locally and in the region, on the roofs of elite residences, fortifications and mosques. The feature goes back to pre-Islamic times in eastern Arabia and the wider Middle East, and we speculate that in the 1950s, as well as such this local, recent tradition, inspiration may have come additionally from Egyptian mosques of the Abbasid era, including the Ibn Ṭūlūn mosque and the mosque of Caliph Al-Hakim bi-Amr Allah. Other elements of the gateways appear to have been inspired by even older Egyptian antiquities, for example the elaborate column capitals seen on Fig. 8 (third from left). While Lebanese architects, who were most likely familiar with Egyptian architecture, are known to have been active in Doha during the 1950s-1960s, no detailed research has yet been done to uncover the individuals behind these elements 51

Although not yet recorded in Al-Asmakh, where the majority of the Muslim population is from India, Bangladesh and Sri Lanka (though the authors have also encountered residents with Iranian and Pakistani origins), 'Hajj door' decoration is found in other older neighbourhoods of Doha such as Al Hitmi, Old Ghanim and Farīj Abdul Aziz, associated there with the Pakistani migrant community (Fig. 9). These doors are decorated with designs and calligraphy giving personal names and celebratory phrases for the residents that had completed pilgrimage to Mecca. The same tradition is found in Cairo and rural areas of Egypt, and no doubt many other parts of the Islamic world. ⁵²

The need for ventilation, especially in hot and humid summer months, was combined with decoration in the older houses of the Gulf. Along with the decorative panels over the windows, pierced panels are commonly placed over doors in order to let air in and out. Their names, 'shemsyat' or 'gamaryat', are etymologically linked to the sun and moon respectively, due to their admittance of sunlight and moonlight. While light and air is admitted, privacy is protected by the carved gypsum panelling.⁵³

Because the development of the Al Asmakh neighbourhood does not go back further than 1950s, the majority of the main doors are made of steel plates. These nonetheless continue to bear a number of formal, functional and decorative characteristics derived from older wooden doors. The steel plate doors brighten the streets with their colours, often bearing floral and geometric patterns dominated by diagonals and curves. It is not uncommon to encounter the same or very similar patterns painted in different colours. While some of these doors incorporate the concept of 'shemsyat' in the traditional form of carved gypsum, some metal doors reinterpret the concept by integrating this feature into their body (Fig. 10).

A large number of the main entrances to the houses are made up of two parts, which include the main door ('bab') and a smaller door set in the frame of the larger door named 'farkhat al-bab'. While the smaller door was usually left open for daily circulation in and out, the

bigger door was used only for special occasions that entailed large gatherings. Since in the pre-oil period the neighbourhoods were composed either of related families or families with a shared culture and a long history of co-existence, these small doors were only closed if the family wanted to be secluded. For the Qataris, the increase of the foreign population in Qatar has resulted in more closed doors for security reasons.⁵⁴ Nonetheless, today in the migrant neighbourhood of Al Asmakh doors are often left open, partly due to the frequent passage of the numerous people they accommodate, and their frequent visitors.

As stated earlier, even in the case of open doors it is usually physically impossible to have a direct visual connection with the interior courtyard, due to the original design of the entrances with a right-angle turn to block the view to the domestic quarters, for reasons of privacy. Today the observer can glimpse aspects of domestic life due to furniture overflowing into the vestibule, including refrigerators, washing machines, wooden ladders for roof access, hanging clothes and shoes. This invites speculation in the observer about the crowded interiors, which are still visually protected by their walls.

COURTYARD HOUSES OF AL ASMAKH AND DOHA

In order to present the interior of these houses we will examine a building we have named the 'Turquoise House', after the dominant colour of its interior walls, and make comparisons with other houses in the neighbourhood to illustrate their commonalities and varieties of architectural elements.

Housing a larger number of people today than originally intended, most of the houses in the neighbourhood have been creatively altered to provide additional units, using screens and separators built with cheaply available materials. Many of these modern strategies have elements in common with vernacular means of construction and expansion. Multiple occupancy of the courtyard houses is not a new phenomenon, contrary to the beliefs of many

of today's planners and other observers. Many Qatari households in the 1950s-1980s accommodated numerous related families and servants in crowded conditions (see below), a pattern going back to older times when the sons of the family would start their households within the confines of their father's domestic compound. Accordingly, similar strategies were required to maintain adequate living space and privacy both in times of former national and later migrant occupation. Thus, as Qatari families grew and expanded new rooms were added to the existing buildings, either on the sides of the courtyard, or through horizontal expansion of the house outwards, or through vertical addition of rooms to the roof. During an interview with Khalifa Al-Obaidly, a Qatari photographer and director of the Fire Station Gallery, he narrated his experience of adding an extra room for their enlarging family as a child in Umm Ghuwailina (a neighbourhood in eastern Doha constructed between the mid 1950s and mid 1960s). He lived there in the seventies with his grandparents, his father and his three uncles' nuclear families. He witnessed the building of a kitchen and extra rooms as needed when his uncle got married, and when the children in the household grew up and

Some of the houses in our neighbourhood were made out of clay and stone and 'the modern' houses of the time were built out of blocks ... I remember adding a new room with blocks but on the roof we put a mixture of clay and mud.⁵⁷

needed separate rooms. When eventually the space for a new room was no longer available,

first his uncle then his father moved to other houses, which were on the outskirts of Doha at

the time. Regarding the materials they were using for construction he says:

The experience of an extended family living in the same house was common to Qatari families in the neighbourhoods built in the 1950s-1960s and before. Nagy relates several personal accounts of such living arrangement, where up to six closely related families lived together, with their dependents, giving a total extended household of 30-40 people. Each individual nuclear family within this had at least its own room and toilet, but some facilities

were shared. Multiple occupancy in the vernacular houses of Doha is therefore not a modern phenomenon restricted to today's migrant residents.

Today in the houses of Al Asmakh, one can still come across recent additions made out of cement blocks. However, more common materials found for their construction are wooden pillars working as the structural skeleton, wooden fibreboards acting as the vertical walls and corrugated metal sheets for the roof finishing (Fig. 11).

One of the older residents of the Turquoise House, from Sri Lanka said that they bought the construction materials from Al Najma Suq (also known as Al Haraj Suq in Najma neighbourhood) in Doha, ⁵⁹ a second-hand market of furniture, furnishing and hardware, soon to be relocated to a less central location and replaced by a new market complex. ⁶⁰

John Lockerbie also mentions some earlier versions of similar type of structures from the seventies, which were known as 'barasti' at the time and housed some of the migrant workers and were made out of materials such as timber, beaten oil drums and cement blocks. ⁶¹ The original meaning of *barasti* is unclear and perhaps means 'roof', but it is often used as an alternative for 'arīsh in some parts of the Gulf region, denoting simple buildings and lean-tos made of date palm fronds. Palm frond structures were cheap and performed well in summer, offering shade and protection with good air ventilation; aerial imagery shows them proliferating in Doha during the early 1950s as the population began to boom. ⁶²

FROM MULTIFUNCTIONAL SPACE TO PRIVATIZATION OUT OF NECESSITY

Traditionally courtyard houses allow for multifunctional use of space, which is reflected in the absence of cumbersome furniture. Apart from the variety of daily activities that can take place inside the rooms and yard (*hawsh*), seasonal migration of space is another characteristic of this type and climate. Besides the multifunctional use of the rooms inside the courtyard house, courtyards themselves are also utilized for a variety of activities including sleeping

during summer nights.⁶⁴ Al-Obaidly says that as a child he remembers women of the family washing clothes on one side, with some of them cooking on the other, while the men would construct small items of wood in a corner and children would play in another. Furthermore, they initially had their kitchen outside in the beginning with a *tannur* to cook bread, as well as a small space where they kept a chicken and a goat. Nagy interviewed a Qatari woman who recalled keeping a cow in the family yard, despite municipal regulations against this, until complaints from a western neighbour caused it to be removed.⁶⁵

Today, activities taking place outdoors are still diverse, but the spaces are functionally defined and privatized in order to respond to the domestic needs of the large number of unrelated people residing in them. In the houses of Al Asmakh, apart from the construction of the individual units that serve as bedrooms, kitchens or bathrooms, the existing layouts of the houses are also divided into units for defining new spaces with assigned functions. Similar materials are used to construct these divisions as those used in the making of additional units, such as sheets and pieces of timber, not only in the form of wood fibreboards but also with old interior doors. Moreover, pieces of fabric and placement of the furniture and domestic appliances are used in the definition of smaller spaces for various purposes inside the house (Fig. 12).

The spatial diagrams of the Turquoise House in Figs. 13 and 14 show the transformation of common spaces into privatized areas dedicated to specific functions with the addition of individual units on the first floor and with the integration of pieces of timber sheets on the ground floor. The breakdown of the spaces are further strengthened and emphasized by the placement of the furniture and household objects which are used to define boundaries of space.

The functional diagram below (Fig. 15) shows the distribution of space inside the Turquoise House. The ground floor hosts six bedrooms of which one is converted from the old *majlis* of

the house. There are three kitchens, of which two are placed outside but protected inside the colonnade (*liwan*). Some rooms are used as storage spaces and it is very common to see refrigerators, washbasins, mirrors, hanging clothes, chairs and couches wherever there is space to accommodate them. The first floor includes additional living units with varying functions. While two of them are used as bedrooms in addition to the three other bedrooms present on the floor, one of them is used as kitchen; the other as storage and the last one is divided into a kitchen and a bathroom. All of these new additional structures except one are built out of timber pillars, wood fibreboards and corrugated steel sheets, while one of them is probably built out of cement blocks, judging from the even plaster covering the structure.

SPATIAL TYPOLOGIES AND MODES OF APPROPRIATION

COURTYARDS

Those remaining parts of the courtyards which have not been assigned new privatized functions tend to harbour features used in common by the residents. A few continue to accommodate a tree in the middle. Al Obaidly reminisces that there was a tree in every house, with the children going to the roof to eat its fruits. Today almost all courtyards are filled with hanging washed clothes from one corner to the other, and in some cases trees act as support for the lines (Fig. 16). In more crowded houses, courtyards accommodate appliances such as refrigerators, washing machines and cupboards.

Other frequent features of the courtyards are sitting areas composed of a group of couches or chairs, sometimes shaded from above with fabric. Washbasins with mirrors are one of the most common elements; this is not a new feature of these buildings: Al Obaidly remembers a washbasin right next to main entrance of his house and this is also seen in the Gypsum House, as published in the previous article.⁶⁶ It served domestic purposes on a daily basis, and also provided for guests at the *majlis*. Just like Al Obaidly's uncle who used to shave in

front of the mirror, the residents of the houses today use them for the same purpose. Furthermore, there are washing tubs in a number of courtyard houses where the residents wash their feet, clothes and dishes, or fill buckets with water to clean other areas in the house (Fig. 17).

Another practice frequently seen in the courtyards is repurposing; in other words the creative reuse of the discarded materials and objects. Old, unwanted material and by-products are transformed with new designated functions (Fig. 18). Pieces of materials, wood, fabric and metal are utilised for creating sitting areas, shading or accommodating kitchen utensils, hanging clothes or cleaning products. Nails on the pieces of timber carry mugs while the timber can also be nailed to the columns to dry the hanging clothes on them. Unused utensils from the markets are utilized in different ways. While the refrigerators can be used for accommodating laundry, a Nestle chocolate stand can be used as a shoe rack and shop signboards can cover up an unwanted window hole. Cement construction blocks can be used to make a step at the entrance of a room or a sitting area with a timber sheet placed on top. While some of the extra beds can be used as outdoor sitting furniture, resting units built out of metal bars can be shaded with wax cloth and cardboard.

KITCHENS

A number of different kitchen types are incorporated into the houses of Al Asmakh (Fig. 19). In the Turquoise House, with eleven bedrooms, there are six kitchens servicing perhaps 40-50 people. As a general observation, the preferred locations for enclosed kitchens are generally the more recently added units, while the rooms in the original 1950s-1960s structures with their better insulation and sound protection tend to be turned into bedrooms. A resident in one of the houses specifically mentioned that the three-bed room that they were staying in was originally the kitchen, while the kitchen was relocated to the semi-enclosed space outside.⁶⁷

Semi-enclosed kitchens can be commonly found in the courtyards besides the closed units. Many are placed inside the colonnade (*liwan*) where they can be protected from above. On the inner side they face the wall behind the colonnade, with two or three sides enclosed by wood fibreboards up to a certain height to define the space and make room for hanging and placing kitchenware.

Another type of kitchen is open, but often shaded by a piece of textile or corrugated steel sheet from the top, and defined by surrounding cupboards and cooking utensils. Cooking activities taking place outside as well as external kitchens themselves are not new concepts for this house typology and region, as noted above.⁶⁸

On the other hand, it is highly probable that the bigger courtyard houses in Al Asmakh had at least one enclosed kitchen as well, as indicated by at least one of Nagy's respondents who lived in the neighbourhood before the 1980s.⁶⁹ Furthermore, the current enclosed kitchen in the Turquoise House appears to have been initially designed as a kitchen, with weathered wall and floor tiles, and a number of water outlets connecting to the washbasins and small exhaust openings with fans facing the street.

BATHROOMS AND TOILETS

Pre-oil bathrooms of the Arabian Gulf region have a variety of shapes and sizes and could be built in different locations. It is not usually clear whether these incorporated both washing facilities and toilets, formerly or today. While some would be built separately from the house and far away from the rooms out of palm frond mats, it was also very common to build them attached to a room corner. These attached bathrooms were either designed inside the rectangular rooms or they were attached to it as an exterior volume, accessed by an entryway. An internal wall, which usually does not reach the height of the ceiling, separates the bathrooms that are placed as interior volumes to the rooms. Although the photographs were

not taken in Doha, variations of this typical Gulf bathroom can be seen in photographs from Riffa Fort, Bahrain (Sheikh Salman Bin Ahmed Al Fateh Fort) (Fig. 20).

While some types can cover the entire depth of the shorter cross-section of the room, they can also be smaller and placed in one of the corners. The height of the wall, which separates the room from the bathroom also varies: whereas some are as high as a person, others have separating wall which reach the full ceiling height of the room.

For reasons of privacy it was not directly observed, but the residents of the Turquoise House indicated that one of the rooms on the ground floor accommodates a bathroom (Fig. 15). Furthermore in a bigger compound, GK was told that they have bathrooms inside the rooms. Other bathrooms present on the ground floor were located on the corners next to the two staircases. While one of them was just in front of the entrance and close to the former *majlis*, the other one was located at the opposite corner of the courtyard. On the first floor, there was a bathroom located inside an additional unit.

Although not seen in the Turquoise House, there is a further type in the Al Asmakh neighbourhood that can be called the 'terrace bathroom'. These are easy to recognize from the street since they form additional volumes attached to the plain exterior walls of the houses (Fig. 21). In one of the houses visited, the interior of a terrace bathroom was observed; this was said to have been built by the residents themselves out of wood fibreboards like the other additional units. The base of the bathroom, which houses a squatting toilet, was built out of cement and the opening to the bathroom was in the shape of an arched gateway. The arched gateway is not commonly encountered in other adaptations performed by the migrant population, implying that this configuration was present in the original form of the house.

1950s aerial images of the Radwani House and other properties in Jasra, studied by the Origins of Doha and Qatar project, show several such original bathrooms and/or toilets on the roof, built of stone and plaster. It appears that before the 1950s these sometimes opened

directly into the street or open ground, rather than channelling the waste into a drainage system as it does in the examples that we see today.⁷⁴

BEDROOMS

Commonly the bedrooms can be detected even before one sees the room itself, due to the belongings that pour out of the entrances along the colonnade (Fig. 22). These spaces become an extension of the room, accommodating appropriated furniture to use as shoe cabinets, sometimes having rails or hangers to hold clothes, cupboards, refrigerators and even a bed on the terrace to sit on and relax. In this way, bedroom space is enlarged to include the semi-enclosed colonnade area.

Due to the crowded occupancy of the houses, all the enclosed rooms are generally turned into bedrooms before the additional units are built for extra bed space. In the Turquoise House there are eleven of them. The number of users of the bedrooms can vary: although rooms can accommodate three, four, five, six and even twelve people depending on their size, in one case GK observed a single room. Common contents include televisions, air conditioning units, old electric fans hanging from the ceiling, bunk beds, hangers and rails for clothes, and coffee tables standing next to beds that create personal areas and sometimes accommodate electronics (Fig. 23).

MULTI-ETHNICITY IN THE HOUSE AND DISTRICT

Designating spaces for specific domestic needs is necessary to accommodate crowded conditions. Furthermore, a certain division is evident in the houses according to ethnic identities. Although a mixture of national ethnic and religious groups can stay in the same house, they usually (yet not always) prefer sharing their bedrooms with their own countrymen.

Evidence of this is seen on the street announcements offering room-shares, which specify desired nationalities and religious faith, for example with notices saying: 'only for Muslim Indian-Nepali', 'for Kerala (Malayali) Bachelors – Indians only', 'only for Sri Lanka'. Sometimes these are written in their own language, effectively limiting who can read and respond. There are sometimes concentrations of announcements in appropriated *majlis* windows, which work as notice boards. The announcements posted on the streets not only give a glimpse of the demographics of the neighbourhood but also reflect the fundamentals of neighbourhood's domestic lifestyle: announcements offer servicing of air conditioning units, refrigerators and satellites, as well as job offers for residents such, for example '5 star hotel house keeping / banquet / kitchen', sometimes written in the languages of the targeted groups (Fig. 24).

Certainly the preference of sharing bedroom space with one's own countrymen does not mean that the residents do not enjoy the multi-ethnic environment that they live in. Two residents from India, who share a bedroom of mixed nationalities, mentioned this to me as one of the positive features of their house in Al Asmakh. They enjoy the fact that they live together with people of other nationalities, and spend their leisure time together going to the Corniche, Villaggio Mall and at times to the Lulu Hypermarket close by.⁷⁵

However, visits and interviews indicate that not everyone in a particular house interacts on a daily basis and forms multi-national friendships in their crowded compounds. In certain cases residents of shared rooms tend to be composed of members with the same nationality who form tight relationships. They spend time, prepare food and eat together, and are sometimes visited by fellow countrymen from other areas of Doha. These groups prefer a more private environment to spend time together, in their rooms.

To ensure harmonious living, house rules are sometimes imposed. One of the larger houses, which covers an area of 760m² and accommodates mixed nationalities, including Indians (of

different regions) and Bengalis, had a list of eight house rules on a wall written in three different languages (Fig. 25).

The written rules give a reflection of collective everyday life, though some residents said that they did not follow any specific rules, maintaining a self-regulated balance of collective living. The written list starts with 'We will clean our rooms like we do in our home countries' and ends with 'If there is anyone that does not know these rules, it is your responsibility to inform them.' Other rules are against misuse of electricity and water, and about the cleanliness of the various spaces in the compound. There is also a rule of one-month's notice in case of a request to change rooms. There is one written rule which is clearly ignored both in this compound and the entire neighbourhood: 'When you wash your clothes, do not hang them outside but take them into your rooms.' The tight space inside the rooms and houses renders the application of this rule impossible, and its flouting provides much of the colourful atmosphere in the neighbourhood.

There are also some houses inhabited by single nationalities. One of the moderately large courtyard houses (370 m²) in Al Asmakh is inhabited only by Iranians working in Suq Waqif. Furthermore, other smaller houses both in Al Asmakh and similar neighbourhoods of Old Doha (Al Hitmi and Old Al Ghanim) tend to be inhabited by related tribal groups of Pakistani origin. These houses generally include a senior person whom the others respect as their elder, sometimes the father, uncle or older brother of the others. In such cases the whole house spends shared time together. One such houses visited in Old Al Ghanim was holding a Friday barbeque, a custom they said they held every Friday evening.

CONCLUSION

Discourses surrounding the preservation of heritage and identity are prominent in Qatar in response to the rapidly changing built environment. A variety of approaches have been

developed to tackle problems of preservation, redevelopment and strategy, with some high profile projects already implemented, most notably Suq Waqif and the Heritage District of Msheireb Downtown Doha. Although these top-down projects are considered successful, they are designed to fulfil either commercial purposes or to provide residential zones for specific segments of the population (usually Qatari nationals or higher income foreign residents).

In contrast, the vernacular architectural heritage of Doha resides in deteriorating older districts populated by low-income migrant groups, such as Al Asmakh, which have not been subjected to redevelopment. The distinctiveness of these areas lies in their spontaneous emergence and transformation in response to changing economic circumstances, demographics, urban policy and daily needs.

These districts straddle the critical moments of transformation from the pre-oil economy and society to the oil era, and from vernacular architectural form and urbanism to modernity. They provide a continuous physical link between the past and present, between historical heritage and contemporary reality, simultaneously preserving the physical constitution of the old town, and embodying transformation through their architectural modifications and changing modes of occupancy. Although the original inhabitants and today's lived in very different social circumstances, most notably in the degree of relatedness, shared ethnicity, history and culture, they faced similar circumstances of overcrowding, multiple occupancy, climate and limited utilities. The houses incorporate both the similar and divergent solutions reached by these very different communities.

As scholars of historical archaeology, contemporary archaeology and architecture, we therefore find these houses and districts, and their modifications, a worthy subject of study as part of the architectural constitution and heritage of Doha. Along with anthropologists and scholars of urbanism, we have much to learn from them regarding the creation, meaning and

perception of built heritage, as well as the adaptation of architectural space and form, and the modern migrant experience in cities such as Doha.

Furthermore, in a country where the main mode of transportation has become the private car for the national and much of the foreign migrant population, and where the modern urban fabric is overwhelmingly impersonal, the human-scale streets and narrow alleys of these neighbourhoods still allow for pedestrian movement and interaction with the surrounding urban environment and inhabitants. Notwithstanding todays mixed demographics, Al Asmakh projects a sense of vibrancy, closeness and community, particularly during the evenings and on Fridays, which for its inhabitants mitigates the alienation imposed by the surrounding modern town.

Finally, we note that many observers view the occupancy of these older houses by migrant workers negatively, considering their *ad hoc* restructuring, repairs and additions to be inconvenient, inauthentic and threatening to the original structure of the buildings. We take a wholly opposing point of view, noting that abandoned houses collapse and/or are demolished or wholly rebuilt from the ground upwards in redevelopment activities, whereas occupied houses are maintained and adapted in the way that we have described, and therefore survive. By default of their circumstances, members of the low-income migrant community have become the custodians of Qatar's vernacular architecture, and are almost entirely responsible for the survival of these districts and their heritage architecture.

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NOTES

¹ Eddisford & Carter 2017.

² Fletcher & Carter 2017.

Al-Othman, 1984: 1.

⁴ Nagy, 2006:120; Gardner, 2014: 348.

Gulf Labour Markets and Migration, 2016; Ministry of Development of Planning and Statistics, 2016.

⁶ De Bel-Air 2014, 10.

Ministry of Development of Planning and Statistics, 2016.

⁸ Nagy, 2006: 120,

⁹ Ministry of Development of Planning and Statistics, 2016,

¹⁰ Nagy, 2006: 124.

¹¹ Nagy, 2006:124, 126; Nagy, 2000:129.

¹² We might further define 'vernacular' architecture by stating that it was constructed by local builders rather than formally schooled architects, and broadly adhered to the precepts of form, construction and decoration which they had inherited from their forebears in the region. We might refer to these precepts as 'traditional'. Regarding their incorporation of materials which would not have been available to their forebears we draw attention to Portland cement, which allowed the production of locally made cement blocks, poured concrete, plate glass and machined rafters, as opposed to mangrove poles. See also Eddisford & Carter 2017.

Fletcher & Carter 2017: 449-451, fig. 19; Nagy, 2000: 129.

¹⁴ Eddisford and Carter, 2017: 100.

¹⁵ Rapoport 1990:11; Kent, 1990: 2.

e.g. Pauls 2006: 68-9; Parker-Pearson & Richards 2003.

¹⁷ Carter & Eddisford 2013: Eddisford & Roberts 2014: Eddisford & Carter 2017: Cramer & Haase 2012: Boussaa 2014a

¹⁸ Bianchi & Sakal 2014.

¹⁹ Makower Architects Limited 2014; Bishop & Lahoud 2014; Burgess 2013; Boussaa 2014a; Salama et al.

²⁰ Salama et al. 2017. This study is concerned with evaluating the urban condition of the two main roads encircling the neighbourhood, rather than delving inside the neighbourhood itself and studying the appropriation and adaptation of architecture and internal space.

²¹ See Scharfenort 2013 for a summary of the Msheireb redevelopment project.

²² Aerials and maps were provided by the *ODQ* project. A significant quantity of this information was originally procured from the Centre of GIS of the Ministry of Municipality and Urban Planning. See also Fletcher & Carter 2017.

²³ Ethics approval for the gathering and use of this data has been formally given by both UCL and the relevant Qatari authority, in this case being the IRB of Georgetown University School of Foreign Service in Qatar. People were generally open to show and talk about their houses when the research was explained. One of the reasons that they were comfortable about showing their living space was probably due to their crowded living conditions; they already had limited individual privacy and kept their doors open to the street most of the time, and were used to a flow of people coming in and out. The second reason was that few had family present. This became clear at a family residence in Old Al Ghanim: there the man of the house agreed to talk and answer questions at the entrance of the house but he did not want any visual or auditory recording and neither did he allow GK to talk to the women of the family. However, the openness of the bachelor houses did not mean that access to every bedroom or bathroom was given, and sometimes even when access was granted, we preferred not to enter or record the interior, for example when residents were resting in their beds. Moreover, although residents sometimes volunteered to be photographed, and readily signed release forms giving written permission for their use, we here choose not to publish such visual records in order to preserve the privacy of the residents.

²⁴ Nagy 1997 especially.

²⁵ The number of houses depends on how one interprets the agglommerated units of housing and courtyards. Six courtyards were present in total.

26 Cramer & Haase 2012. This is contrary to the frequent statement that the district dates back to the pre-oil

period, e.g. in Salama et al. 2017.

- ²⁷ Al-Othman 1984, 8.
- ²⁸ For the population of Doha see letter from Lt. Col. R.W. Hay to Sec of the Govt of India, External Affairs dept., 19 November 1941: Tuson 1991 (Records of Qatar vol. 6): 560.
- ²⁹ Cooke 2014; Fromherz: 2012.
- ³⁰ Nagy 1998: 290-291; Adham 2008, 226.
- ³¹ Hay 1959: 107-112; Hay 1955. Electricity became available after a generator was built in 1957, though it seems that for some time it was restricted to the area surrounding the Amiri Diwan. Piped water was also being pumped into Doha by the mid 1950s, with a desalination plant also coming into operation around 1955, but for many years this water was available only through standpipes in the street rather than in the houses themselves.
- ³² Adham 2008: 228.
- ³³ Nagy 1997: 105-115.
- ³⁴ Nagy 1997: 116.
- ³⁵ Nagy 1997: 112.
- ³⁶ Gardner 2011: 7-8, 19-21.
- ³⁷ Melhuish 2014: 26; Barbour 2014: 24; D'mello 2014.
- ³⁸ Makower 2013.
- ³⁹ Ghiasvand, Akhtarkavan & Akhtarkavan 2008: 20.
- ⁴⁰ Fletcher & Carter 2017; Petherbridge 2011: 199; Jaidah and Bourennane 2009: 9.
- ⁴¹ Mortada 2003, 18-22: 58; Eickelman 1974: 286.
- ⁴² Al-Kholaifi 2006: 159.
- ⁴³ Nagy 1998.
- ⁴⁴ Al-Othman 1984: 115; Lockerbie, Gulf Architecture 04: Air-conditioning 2005; interview with K. Al-Obaidly, March 31 2016.
- 45 Mortada 2003, 18-22, 58.
- ⁴⁶ Rapoport 1969, 66-67.
- ⁴⁷ Comments by Mr Ibrahim Jaidah and Mr Mohammed Ali Abdullah, at *Streets of Doha* panel discussion, Qatar University, Doha, 29 November 2017.
- ⁴⁸ Lockerbie, Gulf Architecture 08: Doors 2005; Al-Kholaifi 2006, 173; Eddisford & Carter 2017.
- ⁴⁹ Al-Kholaifi 2006, 186.
- ⁵⁰ Lockerbie, Gulf Architecture 01: Access 2005.
- ⁵¹ Al-Kholaifi 2006: 194-197; Jaidah & Bourennane 2009: 38-63, 73-87, 102-107, 192, 220-225, 268-273; Hawker 2008, 204-228; Albini 1998; Mahgoub, et al. 2014, 62; Behrens-Abouseif 1998: 63-65, 51-52. Nagy (Year?) records the influx of Lebanese architects and contractors, often working through the Darwish company. It is also feasible that Egyptian architects were active in Doha at the time.
- ⁵² Parker & Neal 1995.
- ⁵³ Al-Kholaifi 2006: 192.
- ⁵⁴ Mahgoub, et al. 2014: 26, 29.
- ⁵⁵ Al-Kholaifi 2006: 173; Petherbridge 2011: 197; Eddisford & Carter 2017.
- ⁵⁶ Al-Othman 1984: 3; Eddisford and Roberts 2014: 9; Eddisford & Carter 2017.
- ⁵⁷ Interview with K. Al-Obaidly, March 31 2016.
- ⁵⁸ Nagy 1997: 191-199.
- ⁵⁹ Interview with resident, April 4 2016.
- ⁶⁰ Walker 2015.
- ⁶¹ Lockerbie 2005, Gulf Architecture: Barasti.
- ⁶² Mahgoub et al. 2014: 105, 106; Ragette 2003: 23; Eddisford & Carter 2017. According to Mahgoub et al. *barasti* can be used to refer to the roof of a building.
- ⁶³ Petherbridge 2011: 199.
- 64 Al-Kholaifi 2006.
- 65 Interview with K. Al-Obaidly, March 31 2016. Nagy 1997: 168.
- ⁶⁶ Interview with K. Al-Obaidly, March 31 2016; Eddisford & Carter 2017.
- ⁶⁷ Interview with Pakistani resident, November 20 2015.
- ⁶⁸ Özkan 2006; Al-Kholaifi 2006: 147; interview with K. Al-Obaidly, March 31 2016.
- ⁶⁹ Nagy 1997: 196.
- ⁷⁰ Mahgoub et al. 2014: 23; Al-Kholaifi 2006: 153.
- ⁷¹ Interview with Indian resident, November 20 2015.
- ⁷² Al-Kholaifi 2006: 158.
- ⁷³ Interview with Pakistani resident, November 20 2015.

 ⁷⁴ Interview by RAC with Mary Thompson, née Hay, August 2015. Mary Thompson was the daughter of Sir Rupert Hay, the British Resident in the Gulf, and she accompanied her father to Doha several times in the late 1940s and early 1950s while acting as his secretary.
 ⁷⁵ Interviews with residents, November 20 2015.