

Islam and the Built Environment: Vernacularism as an Environmental Ethic

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Islam has had a profound effect on the architecture of Muslim communities throughout its history. True faith has a decisive effect on all aspects of a Muslim's life whether they be of a personal, social, economic or political nature. It is therefore essential that the built environment be designed to meet the needs of this practical faith. This paper examines the impact of Islam on the built environment in the context of vernacular institutions developed in Al-Alkhalaf, a traditional community in South-western Saudi Arabia. The relationship between built environment and faith is approached through those communally shared constructs which make up the cultural system and bear reference to the built form. After the emergence of the state of Saudi Arabia in 1932, the transfer of authority and responsibility for the environment from local decision makers to the central government increased the burden on the new authority and weakened the public awareness of local residents. The author proposes the revival of institutions which bring authority and responsibility to the local level for communities in Saudi Arabia.

Introduction

The Arabian Peninsula, traditionally, consisted of five regions, each with its distinctive social, cultural, political and economic traditions. The unique development of the various regions was due to their insular nature. With its mountainous terrain, the south-western region was the most insulated. Al-Alkhalaf is located in the heart of this region and achieved a very high degree of development during a long period of struggle (Fig.1). Historically, Al-Alkhalaf's growth was balanced by the development of parallel institutions - social, economic and political - to accommodate change in order to assure full control of the environment. We will see that the development and function of each of these institutions was in strict accordance with the teachings of Islam.

In the examination of these institutions, we note the strong sense of community among the residents of Al-Alkhalaf, who developed a positive attitude toward public responsibility and individual awareness of the environment, all of which are key concepts in the Islamic faith.

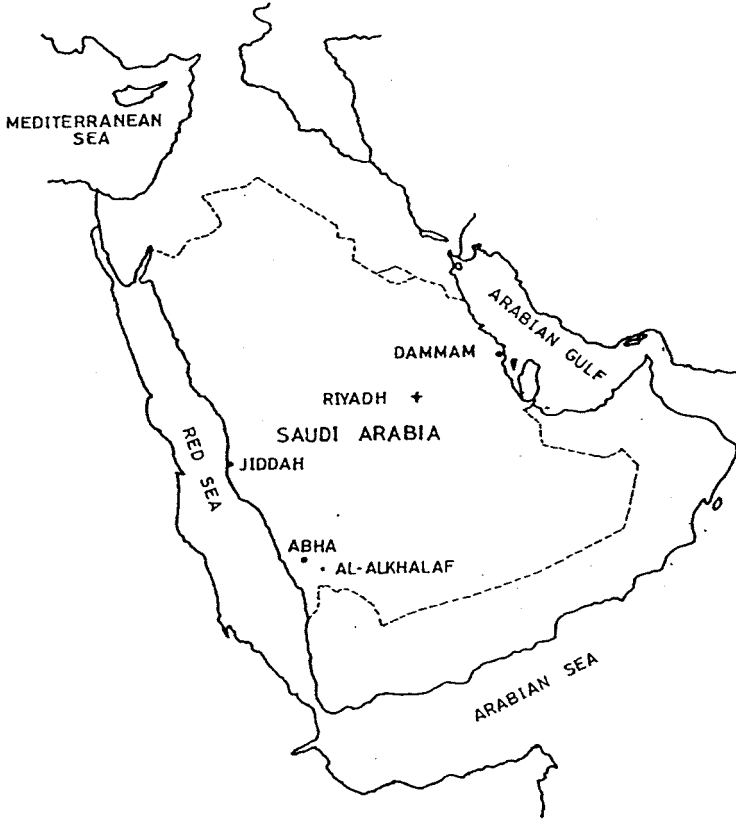


Fig. 1 Map of Saudi Arabia shows the location of Al-Alkhalaf.

After the emergence of the state of Saudi Arabia in 1932, the institutions continued to function until the mid-sixties when municipalities were established. Unfortunately, the transfer of authority and responsibility for the environment from local decision makers to the central government increased the burden on the new authority and weakened the public awareness of local residents.

There was little consideration as to how new technology, building materials and patterns of land use might be adjusted and moulded to suit established conventions rooted in the religious principles and social values of this conservative society (Hough, 1984, 26).

Given the above situation and the increasing foreign influences on the environment, this author proposes the revival of institutions which place the authority at a local community level.

Al-Soliman (1993, 219) assessed specific environmental policies in terms of their relevance to the Third World and industrialised countries and their role in establishing national environmental policy with an adequate legislative authority. He recognised that the traditional practices and tribal codes maintained a fairly good balance with the environment. This might change the role of the central government to that of supervision and assessment of local practice. As a general guideline, the substance of the local institutions should be derived from local problems.

Research Methodology

To trace the development of social, economic, political and administrative institutions, the investigator conducted comprehensive interviews with settlement elders and other knowledgeable people about the indigenous institutions of Al-Alkhalaf. The bulk of material relating to the institutions was gathered through successive field trips, during 1990-93. The anthropological, ethnological, and environmental data collected, enabled the researcher to identify institutions and fulfil the aims and objective of the investigation.

The Insular Context of Al-Alkhalaf and the Emergence of Institutions

The Asir Region of South-Western Saudi Arabia is divided into four different geographical zones: the coastal Tihamah, the mountainous Tihamah, the Sarat Mountains running north and south, and the mountainous transitional zone leading into the central Arabian plateau.

The western limit of the Sarat, the third zone, is formed by a rift (Shif'a) running north and south and dividing the Sarat sharply from the mountainous Tihama zone. The location of Al-Alkhalaf is about three kilometres to the east of this rift at 2,400 meters above sea level. Because of its high altitude and distinctive location, Al-Alkhalaf enjoys a moderate climate with seasonal rain, providing the opportunity for intensive agricultural activity.

The settlement was founded in the late 1600's (Eben Saleh, 1995a). The physical characteristics of the site of Al-Alkhalaf are perhaps the reason for its current location (Fig.2). This site effectively met economic, architectural, and security requirements. The continuous range of mountains that surround the western, southern and part of the eastern side of the settlement boundary, along with agricultural land that immediately surrounds the settlement from the north, west, and east create a natural defensive boundary. The geographical setting and the climate helped provide prosperity and a comfortable life.

Social History

Social history and structure are the cornerstone of any management activity within the boundaries of a settlement. The development of the settlement's spatial organisation can be assessed in the light of social history.

The emphasis Islam places on kinship and the cohesiveness of the family is manifest in the overall planning of the traditional settlement, especially in the residential quarters. The extended family members of Khalaf Eben Ya'ala Al-Bishri, the founder of Al-Alkhalaf, increased in number and stamped distinctive physical attributes on the settlement. The built form resulted from the repre-

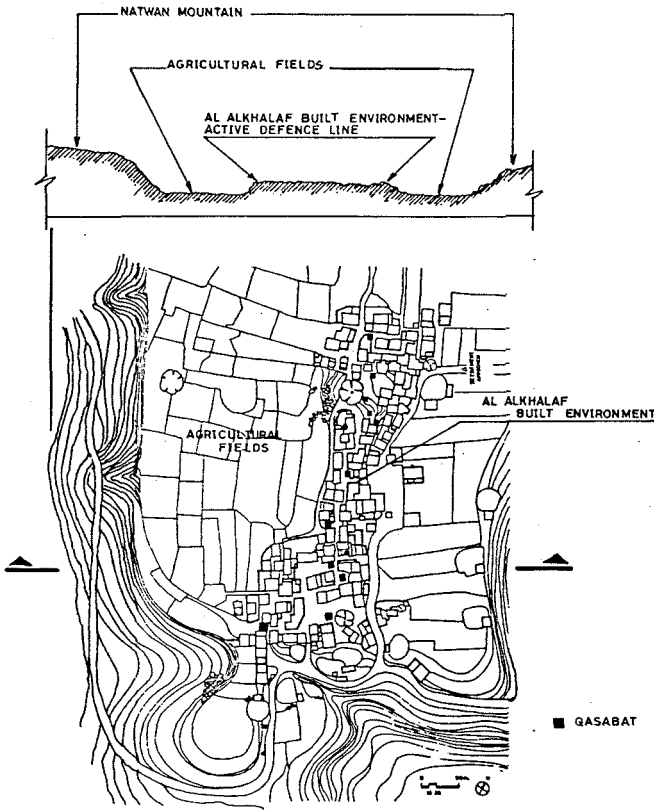


Fig. 2 Schematic layout of Al-Alkhalaf site in relation to arable land.

sentation of two moieties, each having a distinct share in the combination of buildings including the residential buildings, watch towers (*qasabat*), underground crop pits (*madafin*), and mosques. The two moieties traditionally shared the treasury, cemeteries, public open spaces, assembly areas, agricultural fields and Friday market (Fig. 3).

The establishment of the residential quarters began with one house which may have been inhabited by more than one family of the lineage. The expansion of the family necessitated the establishment of more residential buildings either attached or detached, which were the nucleus of the quarter. The later expansion of the lineage may have resulted in the establishment of a new quarter exclusively for that lineage or shared with another (Eben Saleh, 1995b). Each residential quarter in Al-Alkhalaf was essentially a small, fortified, self-sufficient neighbourhood, able to function independently when necessary.

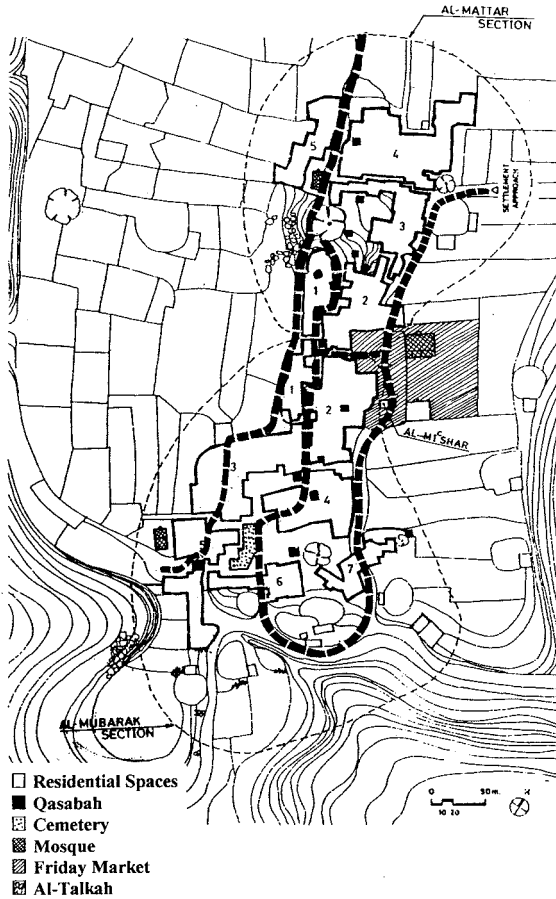


Fig. 3 Schematic layout of Al-Alkhalaf shows the interwoven built form and physical institutions.

buildings and qasabat grouped to form one bulk of houses and communal buildings accessed at ground level by narrow pedestrian pathways, covered passageways (*sabat*) and open spaces, a compactness which symbolised social coherence and unity (Eben Saleh, 1995b). The compactness of built form yielded security, comfort and economy, all of which are encouraged by Islamic teachings.

Before 1932, tribal raiding was common, another important reason for the compact pattern of the settlement and the construction of *Al-Qasabat*, the traditional warning and defence towers of mountainous settlements in the Asir Region. The size, height, design, features, number, and location of these structures reflected to an extent the position and resources of the settlement (Eben Saleh, 1995c).

The location of *Al-Qasabah* within Al-Alkhalaf built form is traditionally in association with the residential quarter of the kin group. It either adjoins a building or is free standing. The building is the property of the residential quarter lineage whose members shared the responsibility for its construction, maintenance and management.

Owing to Islamic restrictions on the mixing between unrelated males and females, privacy was emphasised in the residential quarters. Al-Alkhalaf residents clearly defined physical elements to cope with this issue, such as roof terraces surrounded by high parapets. Windows over-looked public domains and were carefully designed and coloured, enabling the occupants to enjoy living in the residential space without invasion of their privacy.

A most remarkable aspect of the Al-Alkhalaf built form is its compact pattern, with residential build-

There were also free standing qasabat located in the agricultural fields. In addition to their defence functions, they served as landmarks to define tribal territories (Eben Saleh, 1995b).

The towers were deliberately erected to provide warning and defence advantages to inhabitants and intercept or otherwise disadvantage attackers physically or symbolically. The towers are the visible symbol of the invisible power of the society. Intuitively, they could be seen as attractive symbols of the alertness, prudence, and strength of the people of Al-Alkhalaf. The redundancy of the towers communicates confidence, strength and the ability to adequately defend the property (Eben Saleh, 1995c).

It may not seem that the construction of such structures would be influenced by religious teachings; however, confidence, alertness and the ability to defend oneself is part of religious practice. It should also be remembered that the towers were used for defence and not for aggression.

Viewing the settlement from afar, one can simultaneously grasp the two messages of power and peace through the two prominent structures which pierce the skyline: the towers and the mosques. This brings us to a discussion of the most important element of the built form in any Muslim settlement, the mosque.

Religious and Social Institutions

Al-Alkhalaf religious ritual institutions centred around the mosques and cemeteries. The mosques in Al-Alkhalaf were and still are the most important sacred and social institutions. The mosques accommodate the most common religious ritual practised by Muslims, the five daily prayers. They also traditionally served as a place for education in the absence of schools. Equally important, they served, and still do serve, as the hub of social activity, promoting a sense of unity and brotherhood essential in the practice of Islam. The mosques are categorised according to their functions, uses, and time. There are open land mosques, the Friday mosque and daily mosques.

The open land mosque is used for seasonal ritual prayers, such as the prayer of *Istis-ka*, performed during a drought. All capable men, women, and children are requested to attend such prayer. The open land mosque is also used for the prayers of the two Muslim feasts, one being the breaking of the fast of Ramadan and the other the Feast of the Sacrifice, held during the annual pilgrimage season. During the two feasts, Al-Alkhalaf residents traditionally designated a place in the open land where men and children gathered. Each household prepared dishes of food to share. Similarly, women would gather in one household. The celebration was shared by any stranger passing through the community.

Friday being the holy day for Muslims, the second type of mosque is the Friday mosque, where people gather to perform the Friday noon prayer and hear a sermon concerning a religious, or a pressing issue of the day.

The third type of mosque is the daily mosque where the five daily communal prayers are performed. All Muslim men are required to perform daily prayer in the mosque, because the prayer is not only a religious rite but also a means of reinforcing social ties. Ideally, a man should go to the mosque following a known path where he greets others on their way to worship. If time permits, the time following the prayer can be used to socialise with other attendees. One might invite a guest to share his food or a soft drink. An invitation to the group as a whole for a marriage festival, circumcision, or celebration for the birth of a child might take place after the prayer.

During the holy month of Ramadan, Muslims are required to fast each day from dawn until sunset, abstaining from all food and drink. Al-Alkhalaf residents shared the sunset meal together in the mosques.

An important religious ritual is the prayer for a deceased person, making the cemetery a key element of the built form. Traditionally, in Al-Alkhalaf a death would be declared by someone proclaiming, *Ya Goman Al-Bukhoot* (Oh! people, the luck!). Any person who heard this would consider it his duty to stop his routine to assist in the burial. The attending people were divided into three groups. The first group would wash the body, stitch the coffin and bring a ladder-like catafalque (Al-Na'ash) on which to place the body and carry it to the mosque. The second group would begin preparing the grave. The third group, all women, would prepare food. As soon as the body arrived at the mosque, a prayer would be said. Following this, the deceased would be carried to the grave.

The cemetery in Al-Alkhalaf is a fenced open space for common burial. Any Muslim who dies in Al-Alkhalaf has the right to be buried in the cemetery. The graves are dug into the earth of about 1.5 m oriented toward the holy city of Mecca (*Al-Qibla*). They are arranged in sequence of the occurrence of death; there are no assigned places for kin-groups.

After burial, men would visit the relatives of the deceased, where they would share the food that had been contributed by all the families of the community. This consolation or grieving period lasted three days. After one or two weeks, the relatives of the deceased would sacrifice one or more oxen and distribute the meat to his relatives and people in need.

Sacred communal meals were also offered at other important transition points in the life cycle such as marriage, harvest, birth, recovery from illness or an accident, moving to a new house, circumcision or according to a predefined *waqf* or endowment. Such sacred meals symbolise the true belief in Islam and the solidarity of the community and the kin group within the territorial unification of a set of independent and distinct households.

Another aspect of Muslim social cohesion is the collective responsibility of all inhabitants for the well-being of their settlement. This draws from the principle of *al-amr bill maroof walnahany anil munkar*, which demands that every citizen intercept any wrong deed and promote useful and beneficial activities. Based on this Al-Alkhalaf community members shared responsibility in maintaining the cleanliness of public facilities, especially the mosque.

Al-Alkhalaf Social Rituals

The group rituals traditional in Al-Alkhalaf enhanced social cohesion. They contained symbolic expressions which added to social solidarity.

A key social ritual was the hospitality offered to guests, who were classified into three categories.

First were the official settlement guests, such as sheiks or members of another tribe who were coming to reconcile a conflict. An assigned host offers 1/4 to 5 sheep on a yearly basis according to the economic status of the family. If the host does not perform his task the equivalent money is to be put into the settlement treasury (*Al-Mi'shar*).

Second are guests for celebrations such as marriage, circumcision or consolation. They are the responsibility of the kin-group being visited. In this case paternal and maternal relatives and friends may share the hosting responsibilities.

Third are the ordinary guests who attended the Friday market or were passing through the settlement. It was the responsibility of Al-Modawil, the assignor of hospitality duties, to distribute them fairly between the families of Al-Alkhalaf.

This hospitality affected the design and decoration of residential quarters, which were clearly divided into "public" and "private" areas to maintain the segregation of all visitors and the female residents. The *majles*, the room where the head of the household received his guests, was distinctly apart by its location near the entrance, its larger door and its more elaborate decor.

The Economic History

Agriculture provided the economic base of this subsistence society. The proximity and viability of micro-environmental zones that accommodated a variety of natural seasonal plants also provided pastoral activities complementary to those of agriculture. Camels, cows, goats, and sheep were raised and fed from the common pasture land of Al-Alkhalaf.

The integration of agriculture and pastoralism are relevant to the understanding of the relationship between the areas ecology and the economy of the tribe. The economic-environmental context within which Al-Alkhalaf operated is exemplified in a kind of farmers' co-op where every farmer shared in the agricultural activities (*Al-Fawdh*).

Joint economic and social interests brought the inhabitants together on many occasions. During the harvest season, members of the kin group cooperate in managing the harvest by working together on different fields. In the past it was important to accomplish the task as soon as possible to avoid any possible hazards such as rain or tribal raids. The harvest required about two to three weeks to complete, and the whole settlement was mobilised with various chores divided equally among the inhabitants, such as, guard duties, transportation of grain from the field to the houses and the feeding of the workers were shared activities.

Al-Russameh

Al-Russameh is a kind of social convention that regulated the work between the farmers and the skilled labourers such as carpenters, iron smiths, leather makers, etc. who did not belong to the kin group. The harvest was shared with the people who manufactured and maintained all of the equipment and supplies used for farming. The farmer paid in full for a new tool or piece of equipment, but Al-Russameh paid for its maintenance. The amount was defined on a yearly basis, usually within the range of 1-2 percent of the value of the total agricultural product. This social institution defined the role and rights of residents outside the kin group.

Waqf Properties

In Muslim societies a concept called *waqf*, which means to delimit commercial transactions involving real or movable property for Muslims or their institutions. The revenue of *waqf* properties is collected and allocated to cover expenses for public amenities, needy Muslims, and communal responsibilities according to the *waqf* designation (Tashkandi, 1990, 114-125). The person in charge of *waqf* in Al-Alkhalaf is Al-Imam, the prayer leader.

Al-Alkhalaf has more than 30 agricultural fields which were established by the original property owners as *waqf* holdings. The revenues from these properties were allocated to support and pay the expenses of the mosque, the living expenses of the imam, and the funeral expenses of a needy deceased person. They were also used to support needy people and occasional guests staying in the mosque for a limited period of time.

Al-Bastah: The Traditional Friday Market

In Saudi Arabia the traditional weekly markets were initiated and developed in areas with numerous nearby villages and settlements interconnected by safe routes. Although many of these weekly markets have been discontinued due to improved roads and transportation to larger towns and cities, some areas still preserve this traditional activity.

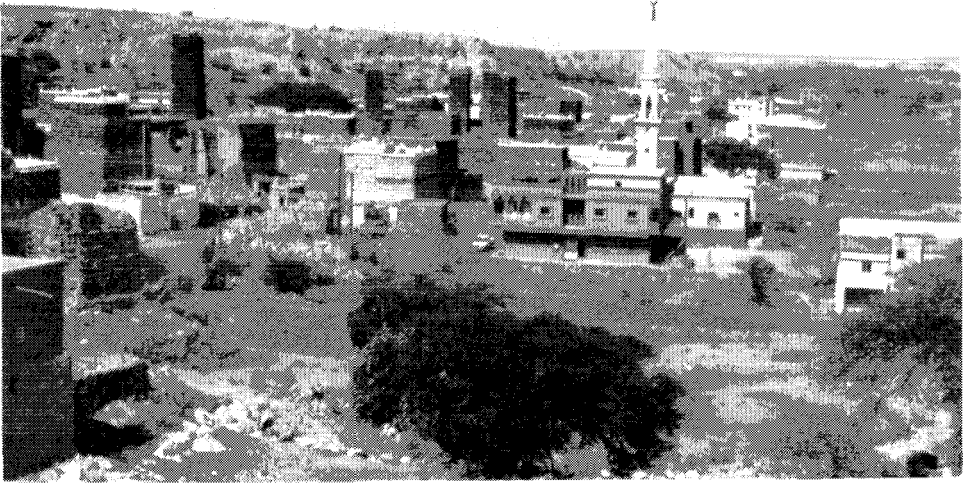


Fig. 4 A picture shows three physical institutions: the mosque, Friday market and the treasury.

Al-Alkhalaf used to have a Friday market for the Bani-Bisher tribal settlements and surrounding nomadic tribes. The settlement council provided a vast open space located on the east side of the settlement for the market. This location facilitated equal control of the market by the two moieties living in the community (Fig. 4). Commercial transactions such as selling, buying and bartering of mostly local products and some imported goods for necessary daily requirements took place in the market. Most of the transactions were barter. Cash was rarely used.

The establishment of these weekly markets required obligations from the inhabitants of the settlement which hosted them. Al-Alkhalaf residents assumed responsibility for safeguarding the visitors, the marketers and their commodities for three days, the market day and the days before and after. The market was subdivided into zones. Each zone was administered by a head of a kin group. Another responsibility of a zone leader was assisting in hospitality management in the absence of khans, restaurants, and rest facilities.

The market served as a place for exchange of news, declaration of crimes and punishments, recitation of poetry, and for recognition of individual groups or tribes for their good deeds. Tribal or governmental rules and codes were also publicly announced. The tribes considered the traditional market as a sacred place where no *tha'ar*, the killing of a killer of a relative is permitted. If such an act is committed within the three protected day of the markets, the tribe will be responsible for retreat or paying the *diah* or blood money.

Al-Mi'shar (Bait Al-Mal): The Treasury or Exchequer

Historically, Bait Al-Mal is the house of treasure in the Islamic state. Muslim society practices a common system of finance known as treasury or exchequer. Legally, all

Muslims have equal shares in this type of financing system. Kharaj and Zakat (alms) of capital, and wealth products of land and animals were collected from rich people and recirculated back to the poor and to prisoners and used for community expenditures. Usually, the local government or a representative is responsible for collecting and saving such earnings in the common exchequer and later spending it on the management of the affairs of the Muslims, their settlements and the Muslims themselves.

In Al-Alkhalaf, Al-Mi'shar was one of the most important institutions. Physically, the treasury was a one story building located south of the Friday market area. It was continuously replenished by designated contributions, such as one tenth of the yearly or seasonal grain crops and livestock. The crops were stored in the treasury while the livestock was sold and the money kept there. It was kept open for any person who wished to contribute his obligatory charity (Zakat) into it, freeing himself from the burden of distributing it personally. Loans are allowed from this fund up to a specified amount for a person in need who had a warrantor. Usually the keepers of the treasury were appointed by representatives (Al-Nowab) and approved by Al-Sheik. The treasury also had one secretary appointed by Al-Sheik. Al-Mi'shar was discontinued as were the many other social, cultural, and political activities with affiliation to the central government. The concept has been modified to voluntary contribution so each kin group that has established savings by yearly contribution can benefit from it.

Al-Madafin: The Crop Storage

Historically, the south-western region of Saudi Arabia was known for its affluence and surplus crops (Al-Otaiby, 1989). This initiated the concept and development of strategic crop storage known as *madafin*, underground silos for the storage of grain and sorghum. They are carved out of solid rock several meters deep in a vase-like form. The interior is plastered with a locally produced cement-like material known as *qadhadh*. According to settlement elders, the volume varies between 10-30 cubic meters. Some families have many *madafin* while others share with other kin-groups.

Households generally store what is in excess of their consumption needs either in the storage in the house (*Al-Mikhwal*) or in the warning and defence towers (*qasabah*). Al-Madafin were usually reserved for long term storage.

The Political History

The community in Al-Alkhalaf is a sub-tribe of the wider mother tribe of Bani-Bishir. It is viewed as a finite political unit within the Bani-Bishir.

Historically, Al-Alkhalaf was administered by Al-Sheik who was assisted by a settlement council of eight people (*Thamaniyah Al-Jama'h*) representing the lineage at the climax of development. The council was assisted by another eight people serving as advisors. These 16 people were elected by the kin-groups in the settlement. The representative was a male with a high degree of integrity, insight, reverence, and

social status. He was supposed to be a scholar of the tribal conventions with considerable knowledge of the social customs and morals. In contrast, settlements or towns

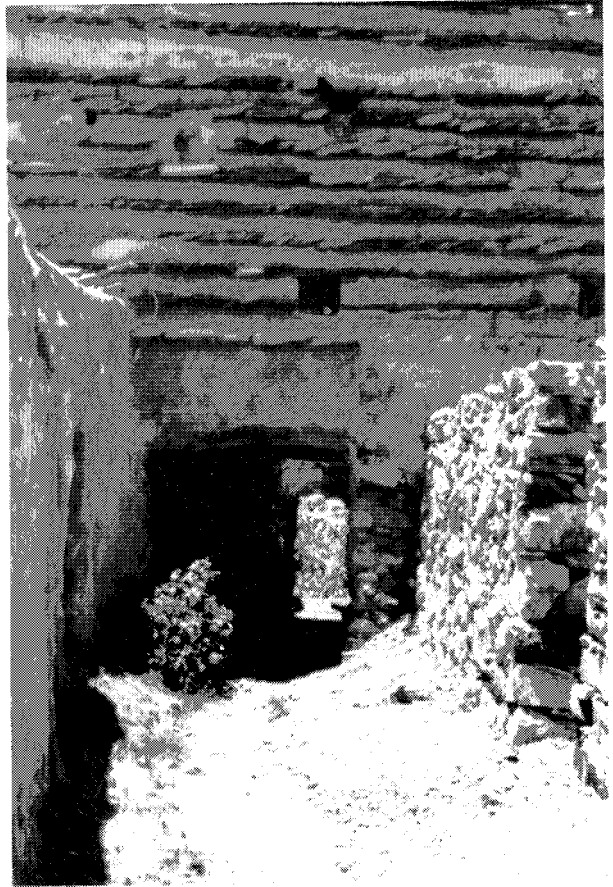


Fig. 5 Al-Sabat bridges the air right of alleyways in Al-Alkhalaf urban form. It is an implementation of Islamic faith which urges cooperation and respect between neighbors.

inhabited by heterogeneous groups had an overseer (*Nuthara*) who was appointed by the ruler with a recommendation from the judge (*Al-Qadi*) or appointed directly by the judge to administer the urban affairs of their settlement (Al-Hathloul, 1981, 129-140).

The Council of Eight (*Jama'h*) had a dominant role in shaping the urban pattern and public buildings of the settlement. All decisions related to settlement development were agreed upon in the oral minutes of the council meetings.

The social requirements and tastes of the master builders and community inhabitants influenced the character of settlement architecture. The residential quarters, for example, were a dense grouping of houses in the immediate vicinity of a moiety elder's house and under the control of the inhabitants. However, decisions about the location of new facilities, distribution of land and control over public spaces within

the settlement fabric were governed by Al-Sheik and the settlement council (Figs. 5, 6, 7 and 8).



Fig. 6 The compact built form of the residential quarters gradually evolved with full respect to privacy of families.



Fig. 7 The mosque and Al-Qasabah are two major urban elements which manifest peace and power, both encouraged by Islam.



Fig. 8 A panoramic view shows the harmonious integration of the built form and the agricultural and natural landscapes.

The political organisation was developed to protect the social and economic institutions. The status of the social and economic institutions were important for environmental and political reasons. These very same reasons also inhibited sudden growth and development in Al-Alkhalaf. The classical features of an economic base of a centralised political authority did not exist in the area. There was no small minority controlling the majority of land holdings, animals or water resources. In general terms, political leadership in Al-Alkhalaf is predicated on the need to resolve all inter-group conflicts, enforce rules accepted by the community, and to face external political spheres of interaction in combination with socio-cultural activities.

The traditional socio-economic system formed the basis of a decentralised distribution of political authority in Al-Alkhalaf. Settlement territory designated for the whole community was controlled and managed by the political leadership. A moiety might build their own defence towers (*qasabah*) located inside the settlement, but the ones outside the settlement, either in the fields or pasture land along the Al-Alkhalaf territorial boundaries, were built, used and maintained by the whole community.

This should not be taken to imply that political leadership as such was unimportant. On the contrary, political leadership was important as long as it was set in the context of the local, traditional, socio-economic system. The tribe, represented by the major lineage, was the main focus of political leadership (Fig. 9). Coterminous with its

territorial control and subsistence pattern was the leadership of *Al-Sheikh*; the ruler. Most inter-tribal conflicts were left for the leadership to resolve.

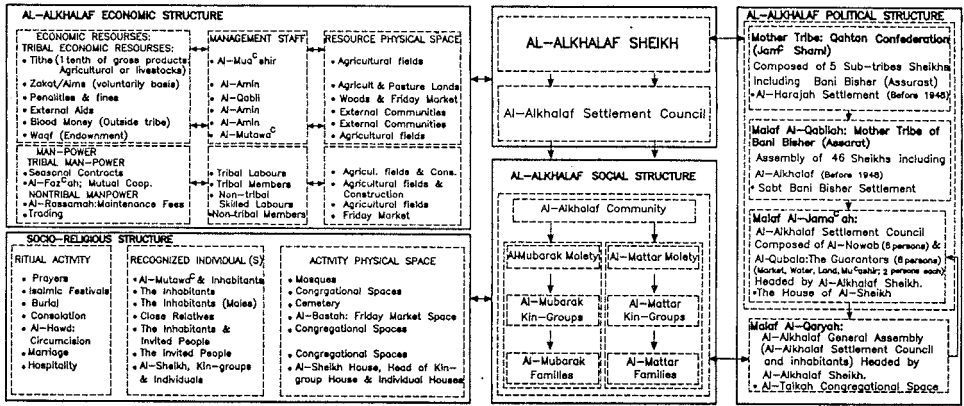


Fig. 9 Schematic drawing shows the functional relationship between institutions of Al-Alkhalaf.

Political Leadership Roles

Following is a discussion of the role of Al-Sheikh and his support staff.

Al-Sheikh: This position is equivalent to that of a chief. It is a semi-hereditary position, with the sheikh's most senior or capable son becoming a strong candidate once his father is either dead or incapable of performing his duties for the tribe. The sheikh's main duties were to represent the group during visits with allies or at inter-tribal conferences, presiding over the tribal confederation council, resolving inter-tribal conflicts and general administration. During inter-tribal conflicts, Al-Sheikh may also become the military leader if he is capable, otherwise this position is filled by another capable man. The sheikh may lead prayers and oversee the welfare of orphans and poor members of the community. He manages the settlement council and assembly. He also leads, with other senior members, the procession of the ceremonial dance, *the Arda*, on various occasions of inter-tribal celebration. He is usually chosen by the settlement council from a respected and strong minor lineage known for courage, generosity, wisdom and fairness. He usually lives in a large house of his own with large reception spaces. It is a formal position reflected in the tribal etiquette requiring any stranger visiting the territory of the tribe to meet first with the sheikh before proceeding on with any other business.

Al-Nowab (Representatives): The representative (*Al-Naib*) was another important position in Al-Alkhalaf's traditional political organization. These men made up the settlement council, *Thamaniat Al-Jama'ah*. They were usually senior males, respected for their courage, generosity, and knowledge of traditional customary laws. Each representative protected the interests of his lineage in the settlement council. He also participated in settling disputes and oversaw the fulfilment of the rules and regulations accepted by the community. If a dispute was settled with the assistance of a

representative, the latter became the guarantor (*qabeal*) of that particular individual. If the individual did not fulfil his/her obligation, the representative, as a guarantor, was required to fulfil what was agreed upon. Al-Nowab helped to formulate any new laws concerning a wide range of issues after thorough discussion in the settlement council. They also accompanied *Al-Sheikh* to formal meetings with guests or representatives of other groups. *Al-Naib* was chosen by the senior members of his lineage; however, his position relative to *Al-Sheikh* was semi-formal. His participation in the various ceremonies was not mandatory, and other senior members of his lineage could take his place, whereas *Al-Sheikh's* absence, unless for health reasons, was rather conspicuous and bore political implications. *Al-Naib* was assisted by other senior members of his kin-group representing the interests of the various minor lineages composing it. These senior members made up the next level of political leadership within Al-Alkhalaf.

Al-Qabeal (Guarantor): *Al-Qubala* (plural of *Qabeal*) were senior members of the various kin-groups that made up the family. They helped their representatives fulfil the tasks assigned by the settlement council, and they were the closest political members to the individual households. Each moiety in Al-Alkhalaf had four guarantors. Two were assigned to the management of the weekly market, open land, forests and water while the other two controlled the tithe. Any respectable senior member of the kin-group could function as a *qabeal* if he was present in a meeting of the tribe. In this case, it is an informal position whose main purpose is overseeing the fulfilment of the obligations required from members of the kin-group toward the tribe. *Al-Qubala*, the guarantors, are expected to be technical experts whose knowledge about the various forms of the physical environment, social rules and regulations are counted upon to guarantee the functioning of the tribal system.

The above people were advised by the following recognised experts:

Hassab al Nijoum: A star expert and a kind of astronomer who used the movements of sun, stars and the lunar cycle to estimate the beginning and ending of agricultural seasons and religious celebrations.

Al-Mu'asher: This person was assigned to collect the tithe from the farmers after the harvest and supervise its storage, sale and use for collective purposes, such as the redistribution of shares during drought and support of needy members of the tribe. Al-Alkhalaf had four tithe collectors equally representing the two moieties. They also used to oversee the building and maintenance of common facilities such as the mosque, cemetery, watch towers, well-digging and payment for road or other community construction.

Al-Ameen: This person served as secretary to the treasury. He was directly connected with *Al-Sheikh*, and was assigned by the sheikh.

Al-Mudawel: This function could best be described as the queuing expert. He was a man familiar with the distribution of mandatory hospitality contributions made by

each household in the settlement. Each contribution was measured by the amount of land ownership and/or animal ownership of each household according to a special formula. He also knew whose turn it was to make the contribution and who should prepare himself for the next possibility. Al-Alkhalaf had two odawel, each representing a moiety.

Al-Khubbat: *Al-Khubbat*, a surveyor, used a six meter long yardstick to measure various land areas. Among the farmers he was considered indispensable for any land transaction, division of land for inheritance, or calculating land ownership for the purpose of estimating the household mandatory contribution to the tribe hospitality expenses.

Al-Mutawi: This man was knowledgeable in religious teachings, could read and write and served as the imam, the leader of prayer. Usually he taught in the mosque. He was responsible for the management of documents regarding property, keeping written agreements, deeds, and agreed upon customary laws. He was a sort of legal expert and an archivist. He was usually familiar with the history of many conflicts and with different approaches for conflict resolution. He was greatly respected and trusted. He performed the marriage engagements and wrote the contracts and agreements between people.

Al-Mosami: This man used an instrument to predict the flow of water underground and located sites for any new well excavations.

Many of these positions were hereditary, and some of them served areas other than Al-Alkhalaf. *Al-Mosami* and *Al-Khabbat* usually appeared during the weekly market activities where their experience was available to the whole tribe of Bani-Bisher.

Political Institutions

Al-Alkhalaf had three different political forums where meetings and the recording of minutes took place:

Malaf Al-Qabila: This was the equivalent of a general assembly of the whole tribe. It included the sedentary and nomadic sub-tribes and was open to all sheikhs of the sub-tribes. The assembly usually took place either in the courtyard of the mosque of the mother tribe, in a wide open field at the weekly market, or the reception room of the *Sheikh's* house (the *majlis*). According to Al-Bishri (1993), Al-Alkhalaf was the leading tribe of Bani-Bisher before the death of the last sheikh of Al-Alkhalaf, Ali Eben Mehi. After that, leadership was transferred to the Al-O'sran settlement 30 kilometers north-west of Al-Alkhalaf. Most of the meetings used to take place in Sabt Bani-Bisher, the Saturday weekly market.

During this malaf, tribal affairs were discussed and settled. Tribal rules, regulations and codes concerning tribe issues as well as the relocation of the mother tribe was discussed and settled (Aloshban, 1987).

Malaf Al-Qariya (Settlement Council): The local issues of the settlement were the responsibility of the settlement council. Rules and regulations concerning various aspects of settlement life were formulated at this council, which was presided over by *Al-Sheikh*. It was open to all the people of the settlement. It took place under *Al-Talkah* tree south-east of the Friday mosque after the Friday prayer upon a request from *Al-Sheikh* or any member of the settlement council. The announcement was made directly after the prayer. *Al-Sheikh* managed the discussion, sharing the floor between moieties.

Malaf Al-Jama'ah: This was a closed meeting of *Al-Sheikh* and the representatives (*Al-Nowab*) of the two moieties in *Al-Alkhalaf*: They discussed matters of importance to the settlement in a closed place at the house of the sheikh. They invited *Al-Qubala* to their meetings when needed.

It is interesting to note that these political institutions kept formal written and stamped minutes of meetings even while oral agreement was prevalent in the society.

Concluding Remarks

Vernacularism, the product of so-called non-professional people in planning and architectural theory, can be seen in the traditional building and environmental management of *Al-Alkhalaf*. It was a vernacularism based solidly on religious teaching, and it established indigenous social, economic and political institutions which proved to be enduring and efficient. Tasks were accomplished without political interference, using rational and objective decision-making, and public participation was encouraged. Consultation among the group was the basic principle in the decision-making process and the resolution of any problem facing the settlement, moiety, lineage, family or any individual member in the society.

In the traditional stage of a community, urban structure is clearly defined, local government is established, population growth stable, and urban migration negligible. In *Al-Alkhalaf*, there was an explicit recognition that its growth was matched by the important political role played by them in resource allocation and by their own ability to improve economic efficiency and to respond to the demand for an improved quality of life.

The new central municipal management created an affordability crisis for those in remote and small communities. A combination of circumstances produced this crisis including the decision-making process, budget allocation, and implementations of rules and regulations.

The future outlook for *Al-Alkhalaf* could lead to perplexity, if not outright pessimism.

The community is now beset by a number of social and environmental problems. Copying the management models of the modern cities, however attractive, is not necessarily the desired solution. Hard lessons have already been learned in adopting

the municipal management model in place of the vernacular model. Large scale disruptive development occurred driven by the search for modernisation, a result of the desire for prestige, an objective not encouraged by Islam. The failure to manage the urban environment of Al-Alkhalaf has led to uncontrolled land use change, inadequate infrastructure and physical decay.

At first sight, Al-Alkhalaf appears to require primarily physical solutions to ensure the conservation of individual buildings and the townscape, but it is not a purely physical design issue. It is an issue of how to generate political and community support as well as financial and institutional resources for regeneration. The fact that Al-Alkhalaf is the largest village in Asir heightens the value of its distinctive quarters and buildings. They have potential to generate revenue from tourism. Traditional structures need to be conserved and rehabilitated, not individually but with a strategy which promotes an on-going process of revival, achievable by social, economic, and political processes which put the local community action and input first.

The requirements to adopt a uniform pattern of planning simultaneously throughout the country discourages locally appropriate strategies and creates an overload at the central authority. A new vernacularism represents an innovative approach to environmental management. It is an attempt to introduce uniform planning of a local nature to the huge numbers of villages, towns and cities - planning which again recognises the importance of Islamic concepts still treasured and routinely practised in Saudi society.

As many of its indigenous institutions have disappeared, Al-Alkhalaf could benefit from a revival of their role by the updating of their by-laws in writing. It would be more beneficial than developing new types of institutions based on past traditions since the people of Al-Alkhalaf had already successfully implemented codes, regulations and policies that protected and organised the overall environment.

Vernacularism is attractive through its aesthetic variety, its independent self-production, its putative egalitarianism and its adaptation to its surroundings.

When man uses the vernacular to create an alternative to that of internationalism or modernism he possesses a living environment which is authentic and rooted in its indigenous culture.

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