

Bismillah Al Rahman Al Raheem

**Islamic Values
In
Contemporary Urbanism**

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Abstract

Islamic Values in Contemporary Urbanism

The traditional town in the Muslim countries has been formed by environmental constraints and principles derived from the Islamic Sharia (Law). What are these constraints and principles, and more importantly, are they valid in contemporary Urbanism?

The author examines the situation and attempts to formulate some answers drawing from his experience in both hot areas and mild areas of the Islamic world. This response deals particularly with residential quarters.

In The Name Of Allah, Most Gracious, Most Merciful

Introduction:

I would like to thank the Islamic society of Melbourne, Eastern Region, for inviting me to present this paper at their first conference entitled:

"Islam, a Comprehensive Way of Life."

It is a coincidence that the paper which I presented in 1979 at the first conference between Islam and Christianity in Australia at Monash University, was also entitled: "Islam, a Comprehensive Way of Life"! This paper was published in the proceedings of that conference. Explained in it were the spiritual aspects of Islam, as well as directives, recommendations and laws affecting our daily lives; the latter fulfilling the meaning of Islam: "Submission to the Almighty" in relation to human behavior as a whole.

I briefly explained some examples, such as the theories of "Freedom of Thought", "Freedom of Religion", and the theory of "Equality".

The Holy Quran and Sunnah also give broad outlines in other aspects of human conduct. These cover areas such as economy, social

behavior, family ties, defense, and urbanism; and have promoted a comprehensive civilization that has lead humanity to happiness, justice and development through 14 centuries.

This paper will examine some aspects of urbanism as directed, understood and applied by Muslims, particularly in the hot and mild areas of North Africa and Arabia where the author has had his experience.

Human civilization flourished wherever Islam ruled with it's true spirit in countries such as the Arabian Peninsula, El Sham, Egypt, Turkey, Morocco, Spain..

Islamic Values In Contemporary Urbanism

Urban development is a major issue in contemporary societies, whether eastern or western. Governments all over the world pay tremendous attention to the issue, and large portions of their budgets are spent on new towns, new neighborhoods and new housing projects and frontiers.

The rapid development in industrial activities in particular has led to complex social, economic, technical and political transformations that have affected the values and the physical form of cities, towns and villages.

There is no doubt that the industrial nations have surpassed the Muslim world in material development. They have established clear standards based upon formulated values in almost all aspects of human activity, including that of urban development. The product has been settlements which completely follow these values and standards, and which in some cases have been suitable for their environments.

Also, there is no doubt that some material standards have crucial importance, such as health regulations that require cross ventilation and penetration of sun rays, as well as potable

water and sewerage control. Modern building methods and materials have their major role in this development.

Important inventions such as the automobile, enabling the city to expand horizontally, and the elevator, enabling it to expand vertically, have only added to the complexity of the urban situation in Muslim and non Muslim countries alike.

The Muslim nation facing this situation has to examine both its past and present history, as well as that of other nations, in order to benefit both its future generations and humanity at large.

Muslims believe that Islam is a comprehensive way of life and that the Sharia (Islamic Law) presents all the basics which define guidelines for man in this life. It not only reveals the way between man and his Creator, but also the relationship between man and man, and that between types of societies.

The questions to deal with here are:

- (a) Are there elements in the Islamic Sharia which refer to urbanism?
- (b) Were the settlements in the Muslim world affected by these elements?

- (c) Can we benefit from these elements or principles in our urban developments, or is the whole issue unexplorable so that we should follow the standards defined by contemporary practices and schools of thought in planning, urban design and architecture, produced from the west or east, reflecting their own philosophies, ways of life and technologies?

In order to answer these questions we should first know the general objective of Islamic Sharia.

The objective of Sharia² is the preservation, through the observation of its guidelines, of: The spiritual contentment of man, the physical and mental well-being of man, and his descendants, and the correct way of dealing with property. All of this has the ultimate aim of creating the healthy and virtuous individual, family, society and eventually the ideal world.

² Preservation of: Al deen (Religion), Al nafs (self), Al akl (Mental Strength), Al nasal (Descendants) and Al maal (Wealth), including natural resources.

There is no doubt that these general principles have affected urbanism, since it is impossible to imagine preserving and developing the spiritual and mental capabilities of ones self and children, family and society as a whole, in a polluted physical environment that has no organization or is spoilt by crime and evil.

I Influences That Have Affected Islamic Urbanism

There were many influences that affected urban development in the pre-industrial age in the Muslim world. The most important are the following:

- A. The Islamic Sharia.
- B. Climatic Constraints.
- C. Local Building Materials.
- D. The Social & Economic Situation.
- E. Available Technology.

A. The Islamic Sharia

We believe that the Almighty has delivered His message through messengers in stages, the final stage being Islam.³ The followers of this message did not disregard previous human achievements or deny them, but benefited from and built upon them. They understood and observed their relationship towards the Almighty, and they strove to undertake their personal and communal achievements through following the Sharia. The founder of the new town Faas (Fez) in northern Africa, Mawlay Idris Al Azhar, prayed this before begining construction:

Oh my Lord, You know that I don't intend by building this city to gain pride or to show off, nor do I intend hypocrisy or reputation or arrogance, but I want You to be worshiped in it; Your laws, limits and the principles of Your Quran and the guidance of Your Prophet to be upheld in it, as long as this world exists. Almighty, help its dwellers to do righteousness and guide them to fulfill that. Almighty, prevent

³ Moustapha, A. F. "Islam a Comprehensive Way Of Life". 1979

from them the evil of their enemies, bestow Your bounties upon them and protect them from the sword of evil. You are able to do all things."

General Sharia Principles:

1. Sacredness of Family Life and the Support of Children

Islam has given great attention and care to the family, considering it the nucleus of society. The first matter which is given attention after spiritual needs is the immediate physical environment where the family is living, i.e. the dwelling unit.

"And of His signs is this: He created for you mates from yourselves that ye might find rest in them, and He ordained between you love and mercy. Lo, herein indeed are portents for folk who reflect." (The Romans-21).

Family life is strongly recommended, early marriage is encouraged and facilitated, and bachelorhood is discouraged.

The Muslim community has responded to this by offering each family an estate (lot) of its own to build its dwelling on, feel secure on and be at peace in. Hence, family privacy in all regards is encouraged and there is the general

desire not to encourage external openings that will allow others to see into the dwelling, which is reflected in building elevations.

2. Limiting the Relationship of Sexes Outside of the Family Circle

While Islam has opened the door to its utmost limit for marriage, it has closed the door and forbidden contact between the two sexes outside of the family circle, except in special circumstances such as means of livelihood, as in trade, or for educational or medical reasons.

The Sharia states severe punishments for illegitimate relationships, since these lead to the destruction of the family and severe harm to innocent children, as well as the spread of disease in the community.⁴

Looking at women outside the immediate family is discouraged:

"Say to the believing men that they should lower their gaze and guard their modesty; that will make for greater purity for them: and God is well acquainted with all that they do. And say to the believing women that they should lower

Venereal disease and new epidemics such as aids.

their gaze and guard their modesty; that they should not display their beauty and ornaments, except what (must ordinarily) appear thereof .. " (Al Noor 30-31)

The Islamic community has responded by offering special care to protect the female, i.e. special spaces for the ladies within the dwelling and within certain public buildings, particularly mosques.

3. Protecting, Raising and Educating Children

Islam encourages the education of the individual from his childhood to the end of his life. Islamic education is a continuous process derived from acts of worship such as prayer, fasting, zakat (poor tax) and pilgrimage, or from other deliberate deeds such as learning, memorizing the Quran and acquiring knowledge in technical fields or physical education. Islamic history is rich with examples of the fruits which this education has contributed to knowledge, the arts and chivalry, achieving the optimum in moral behavior and human values. The great scholars such as Ibn Sina and El Kuarizmi are well known contributors to science; Malek, Abou Hanifa, El Shafie and Ibn Hanbal were religious

and legal authorities; while Salahudeen is a well known ruler and military leader.

All of this has been reflected in the urban environment by the provision of spaces for secure neighborhoods, spaces for worship and for learning as well as open spaces for training. These spaces developed in later stages to become institutions, such as the University of "Al Azhar", in Cairo (over 1000 years old) and the famous mosques with their schools all over the Islamic world.

4. Public Health

The Prophet (P.B.U.H.)⁵ said: "Cleanliness is from faith."

Truly, the Muslim has to undertake abolution at least three times a day in order to perform the five prayers and also has to take a shower at least once a week with running water.⁶

The Muslim is commanded to clean his

⁵Peace Be Upon Him.

⁶ Many Muslims now take a shower more than once daily due to the existence of modern facilities.

house and the sidewalk in front of it.⁷ Even sitting next to the sidewalk or beside pathways has⁸ certain courtesies, including the cleanliness of the space and hailing, out of respect, the passers-by.

In later stages, the role of the municipal representative was formulated and the "Muhtasib" existed to look after food standards and cleanliness as well as "looking after the good and preventing the bad in the community", known as "Al Amr Bil Marouf Wal Nahyi An El Monkar".

Special spaces developed within the dwelling and the community for cleanliness, such as the bathroom and the public bath.

5. Enjoyment of Life

"Say: Who hath forbidden the beautiful (gifts) of God, which He hath produced for His

⁷ The sidewalk (Al fina) was originally part of the lot. The owner had the right of temporary use of it, but was responsible for its maintenance.

⁸ This means spaces adjacent to the streets and walkways such as courtyards and side gardens.

servants, and the things, clean and pure, (which He hath provided) for sustenance?

"Say: They are, in the life of this world, for those who believe, (and) purely for them on the day of judgment. Thus do We explain things in detail for those who understand." (Al Araaf 32)

The early Muslims understood by the spirit and the will of God that they would be an "Intermediate" nation: no monasticism, no separation from material life, and no excess in worldly instincts and desires either. The Prophet, his companions, and their followers through the centuries have had complete integrity in their behavior, living up to the moral principles of Islam, applying them in their daily lives and refusing double-standards or the idea of separating "church from state", leaving "what is Caesar's to Caesar, and what is God's to God"; since all is ultimately for God!

Consequently, we have found deep participation by true Muslims in worldly affairs, such as agriculture, craftsmanship, industry and commerce, as well as in the building of urban environments. These environments were enriched by positive spaces and functional buildings, enhanced by internal gardens and fountains with running water for cooling the internal, open or closed spaces, and for

enjoyment. Mosques developed to become functional and beautiful structures for worship and education, decorated in many cases with simple, durable, easy-to-maintain and colorful materials.

6. Economy. Avoiding Squander

"O children of Adam! Wear your beautiful apparel at every time and place of prayer: eat and drink: but waste not by excess, for God loveth not the wasters." (Al Araaf 31)

".... and squander not (thy wealth) in wantonness, Lo; the squanders were ever brothers of the devils, and the devil was ever an ingrate to his Lord." (Al Israa 26-27).

Land in Islamic towns has always been controlled and efficiently used. No internal or external spaces were wasted. The sizes of lots offered to families were controlled and not large.⁹ No doubt, the hot climate had its impact here, but the general attitude of the Muslims was humility, economy and equality, as derived from the spirit of Shara.

⁹ Excess of lot sizes is a major deficiency in contemporary cities.

unit, its roof, gardens and courtyards. This enabled the male and the female to enjoy living in the dwelling and perform their activities in its spaces without the invasion of neighbors. The objective of this privacy was not for convenience sake, but as a basic requirement¹¹ for the preservation of the family.

Every dwelling unit had one or more courtyards. One was used for reception, or as the male quarter, while the second, or central one, was for the family, or the women's quarter. A third would be for service.

The courtyard is certainly the characteristic which distinguishes the traditional Islamic

house.¹² We could call traditional housing inward looking or "Introvert". Almost all openings derive light and ventilation from the courtyard. If the architect had to open windows on the outside wall, they would be above eye level or covered by the beautiful Islamic screen (Mashrabiya) allowing light and ventilation while still providing privacy.

Today we can still find remarkable examples of houses all over the Islamic world that combine privacy, with function and beauty.

2. Building Heights

Stemming from the principle: "No Harm" (Darar), an individual is not allowed to harm the

¹² We have earlier mentioned that Muslims did not deny or refuse the knowledge of previous civilizations, but rather built on them and preserved all their positive-Islamicly approved achievements, while denying and stopping all negative or "Wrong" practices according to Sharia. Courtyards and interior gardens are a clear example of this. Islamic architecture adopted the courtyard concept and used it as a standard; in contrast to today's "Extrovert" practices that have rejected the courtyard completely.

¹¹ This could now be called the "Conservative" way of life versus present day permissiveness, which in our opinion has destroyed the family in the west.

society or vice-versa. An early value reflected in contemporary town planning is "Nuisance". Consequently, building form and size and the activity in a building or on a lot (land use) should not affect the neighbors negatively. In a high or medium density situation, building several storeys would prevent air and sunlight from reaching the neighbors and would invade their privacy. This concept thus promoted the limiting of buildings to one or two storeys.

The net result was that the typical Islamic town, as a whole, was a low-rise development. If we combine that with the "Closeness" of buildings, dictated by principles of economy and the requirements of the climate, we can describe the traditional Islamic town as a high density/ low rise town.

3. Building Form

The strong desire for privacy, as well as climatic constraints, has always led Muslims to build their houses around courtyards, as mentioned before. The overall concept in the Islamic town was the "Introvert Composition". This was clear in the courtyards of dwellings, mosques, schools, hospitals etc. Maximum attention was given to interior space, whether

closed, open or semi-open. Exterior elevations were not given attention except at later stages. Since the roofs of buildings were often used, parapets were at least two meters high (for privacy) thus offering the dwellings additional height in comparison to dwellings in other cultures. Planting was mainly in interior gardens and courtyards, which in some cases grew over external walls to cast shadow and beauty into the streets. Almost no planting existed in outside spaces, clearly contradicting the contemporary planning principle of highway beautification.¹³ Buildings were attached, resulting in a continuous urban fabric, or city "Super-Blocks".

4. External Spaces

External spaces were limited to a minimum for the use of pedestrians, horses and camels. Street widths were minimal and based upon the principles of "Right of Way", later developed by Islamic jurisprudence. Town squares were adjacent to mosques and market places.

The shopping mall (suq) was a narrow pedestrian passage (by present standards) but developed to be a rich urban experience, still

¹³ At an exorbitant cost.

clearly reflected today in old markets such as that in Cairo, Tunis, Fez, Aleppo and other Muslim cities.

Most of these external spaces were completely paved with stone, enabling the residents to maintain them with ease.

The pedestrian nature of the Islamic town enables one to enjoy and feel the form of external spaces; a badly needed value in contemporary cities.

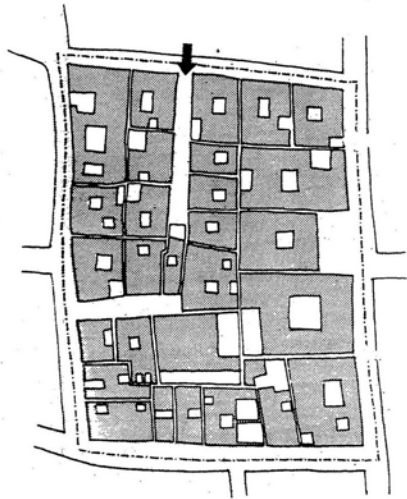
Dead-end streets were common, providing peace and privacy to neighbours.

Irregular passages fulfilled the same objectives.

5. Statues, Pictures and monuments

Islam denounces the practice of raising leaders and kings to superhuman or eternal status, building statues and tombs for them, or even drawing their pictures with the intention of giving them special, sacred positions. Consequently, artists in Islamic civilization have refused to do this work and have stopped this common human practice,¹⁴ thereby limiting its

¹⁴Such as on pottery, wood work for furniture and building elements.



Figl (2)

“The traditional Islamic Town” coherent Urbanism, High Density and low rise. The internal garden (Patio or courtyard) is the basic characteristic in private and public buildings.

squander on items of no real value to humanity. There is no doubt that Islamic art in building and pottery, metal and leather was of the most beautiful in human history, but all of it had social and functional dimensions. Public buildings or squares were thus void of statues or pictures of humans and animals, or expensive abstract elements such as obelisks.

6. Architecture

New types of structures developed to fit Islamic requirements. The mosque plan¹⁵ is different from the church plan. Mosques with schools, and later with housing for students annexed to them, were new forms in the urban space. Orphanage homes, or homes for the aged did not evolve since the extended family was a deep part of the Islamic system. The responsibility of the male for the female, for the

¹⁵ Mosque plans were rectangular with the long side facing Mecca in order to allow more individuals in the front rows, according to Sunna (Practice of the Prophet). Mosques took the form of a square but never a rectangle with its short side facing Mecca (church plan). Mecca was the first place of worship for the Almighty, built on earth by Abraham (P.B.U.H)

elderly and for children was the rule. However, hospitals, public baths and market places interconnected with mosques or independent, were all new forms in the urban environment.

Islamic architecture was a "Functional Architecture", using local materials and free from artistic dogmas such as "Symmetry" or the artificial and expensive Greek and Roman orders. The result was free elevations,¹⁶ free forms, and often original and exciting compositions that still stand as masterpieces of world architecture, reflecting function,¹⁷ simplicity, comfort and beauty, which are major requirements and objectives of the Sharia.

¹⁶ Examples of "Free" elevation and "Functional" buildings are strongly demonstrated in houses in "Old" Madina, Cairo, Fez and Tunis.

¹⁷ Some leaders have built tombs but these are unacceptable practices by Sharia, even though the outcome has been beautiful monuments.



Fig (3)

The mosque is an excellent example of "Islamic Architecture" Demonstrating: function, beauty of proportion, use of light, color, material, and structural clarity.



7. Social Interaction

Sharia orders the care for humanity at large, specifically, the nearby community and direct neighbors up to forty neighbors.¹⁸ Communal

" Tradition.

prayer five times a day strengthens social ties. Islamic acts of worship have in most cases a social implication as well as individual impact.

The continuity of the urban fabric, or the attachment of buildings, was another factor to increase "Face To Face Relationships", social contacts and solidarity. All this resulted in a strong social order, "Neighborhood" or locality feeling, and social consciousness in Islamic towns; another value badly needed in our contemporary urban spaces.

(B) Climatic Constraints

Local climatic conditions in the hot or hot/mild zones, where the majority of Muslim nations are, have been adequately noted, and suitable solutions have been established, becoming norms in urban development. The harsh, hot climate presents a constraint over dwellers in that part of the world, namely the Middle East and North Africa, shaping their architecture as well as the urban setting.

If we combine the previous factors of privacy and economy with the climatic constraints, the courtyard is the most suitable solution.

Hot, arid climates necessitate central

courtyards, surrounded by spaces or walls in order to avoid the severe, dry summer or cold winter winds. The coastal towns require cross ventilation, inviting wind rather than blocking it. Consequently, courtyards there were located next to external walls which were often perforated to permit wind.

Perforated openings (or walls) have developed into the beautiful "Mashrabiya" or sunscreen. This mashrabiya allows sunrays to penetrate, wind to flow and privacy to be maintained. It also adds to the architectural quality of internal or external spaces and elevations.

The "Wind Tower" is another functional feature that collects the prevailing winds and directs them to the main living spaces during summer, particularly at night or on days when the wind is cool.

The fountain in hot, dry areas is a cooling device which has added life, beauty and quality to the living spaces and courtyard gardens with its flowing water.

(C) Local Building Materials

Muslims have mainly used local building and finishing materials, such as mud, stone,

wood, glass, stucco and woolen carpets. Facades were covered with white plaster or mud to give them a smooth finish in order to reflect the sun and to prevent insects from penetrating.

Most of these materials are long lasting and economical to use. Simple industries and crafts developed, such as stone cutting, color glass and components of doors, etc.

(D) The Social and Economic Situation

The social and economic situation of the state at any given period of Islamic history had its impact on urbanism.

The spirit of Islam encourages science, knowledge and human development in all aspects of material and spiritual matters, enabling man to strive for the good of humanity at large. If an unsettled period prevailed, this was reflected in building activity, and had its impact upon urban development. Whenever the opposite occurred, i.e. a strong state, enjoying the confidence of its people and living in accordance with Islamic Shariah, buildings were original, from elaborate to simple.

(E) Available Technology

Islam not only encourages the development of science and technology but its basic acts of worship necessitate the existence and development of technology.

In order to pray one has to know the direction of Mecca. This cannot be achieved without a compass or the knowledge of astronomy, particularly in dark nights and during traveling. Praying on a clean surface necessitated the use of rugs, thus stimulating the highest development of rug industries, art and technology.

The same applies to Pilgrimage, which was performed by many nations by crossing the sea, necessitating the development of ship building technology. Similarly the obligation to perform certain Islamic functions such as prayers and ablutions or bathing, necessitated certain technological achievements. The dwelling was subjected to new building techniques, introducing utilities such as pipes for water and drainage.

Early buildings were simple trapiated structures, but through time Muslims adopted and developed other techniques such as huge domes for mosques and tall minarets.

Summery

The previously mentioned influences have caused Islamic Urbanization to have the following basic characteristics:

1. High density, low rise⁹ development: (HD/LR).
2. The "Introvert" concept on both the urban scale and the building scale.

This has produced:

- a. Privacy.
 - b. Climatic advantages.
 - c. Positive urban spaces.
3. High coverage of land with buildings.
 4. A continuous urban fabric, irregular in shape and form with identity and originality.

Urban development in Muslim countries could also be characterized as: "Human Development", designed for the human being, respecting the human scale and pedestrian orientated.

⁹ Exceptions are in Yemen and Hadramour, where available materials, construction techniques and scarcity of agricultural land, could be reasons for the limited high rise. The development nevertheless, was high density.

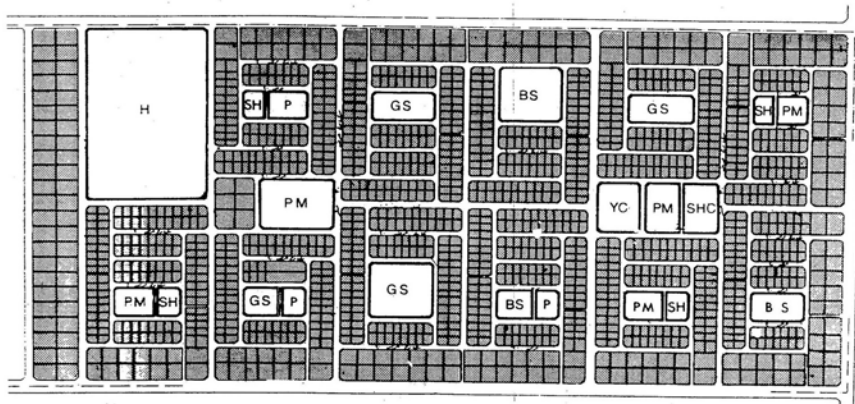


Fig (4)

Typical subdivision in contemporary cities:
 disintegrating the society, expensive to build
 and maintain.



Fig.(5)

Contemporary cities: Lack of architectural coherence.

II. Contemporary Urbanism

It will be difficult to list all the circumstances which have contributed to the development of contemporary cities in the Islamic world in this paper, since every city has its own history, and so positive and negative achievements.

The following are the main circumstances which have caused the present physical form of these cities:

A. Economic Development

The present intensity of economic activity caused by industry, population growth and world development as a whole, has contributed to the huge growth of Islamic cities. The economic base of these cities was exporting natural resources, commerce or industry or other activity, but in all cases was of a great impact both in terms of size and quality of urban life.

B. New Inventions Particularly the Automobile and Elevator

Although inventions such as the wheel, the

horse and carriage, and then the locomotive, caused the extension of towns and cities (mainly along circulation corridors), the invention of the automobile had tremendous impact on city growth in all directions horizontally.

The elevator, on the other hand, caused buildings to become high rise, for extensive economic use of lots, particularly in the central district of the city (C.B.D.), leading to the city's growth vertically.

C. Industry

The development of light or heavy industry and the establishment of factories and industrial cities, including thousands of workers and their families, has helped urban development and sprawl to a massive, unprecedented level.

D. Population Migration

The concentration of economic activities in cities and the positive development of community facilities, such as schools and health facilities, have raised the general standard of living of urban dwellers. On the other hand, the difficulty of getting a means of livelihood, plus the population increase in rural areas, have

caused a wave of migration from agricultural areas to urban centers, contributing to their growth.

Most of these new neighborhood building forms and planning techniques in our cities have been copied from early non-Muslim planning, subdivision standards and methods from contemporary western cities. The majority of these are:

1. Apartment blocks with a very high population density (high density, high rise) or with some density control (medium density, high rise) allowing large open spaces between buildings, similar to the theory of Le Corbusier.²⁰

2. Independent dwelling units in the form known as "Villas", leaving between them huge wasted, open spaces and producing neighborhoods of low density, low rise nature, where the upper class of the society often live.

These two prevailing systems of urbanism have generally been established on subdivisions well known as "The Grid Iron Plan" by unqualified individuals lead only by a "Commercial" mentality that aims at a speedy, high profit. Also, the element of land speculation has been a main factor rather than noble social goals and objectives.

²⁰ "La Unite D'habitation", by Le Corbusier.

The Results of These Sub-Divisions Were:

1. A dangerous environment for both pedestrians and vehicles.

2. No social²¹ integration, since there are no joint opportunities for meeting during movement or in public areas. The individual depends totally on the automobile.

3. Uneconomical costs of utilities, such as potable water, sewerage, electric lines, telephone lines, roads, external landscaping and sidewalks. These costs are very high due to the wasted space between buildings. This accounts for an extra expense of up to 50% or more in comparison to compact development. The cost of maintaining these utilities is also very high.

4. An excessive consumption of energy, especially in hot climates, caused by building regulations that have left the vast majority of structures in the city exposed to the external climate, particularly sun rays and heat, all day long. Villa type development, high rise apartments and private open spaces are exposed to the hot sun all day, causing the extra use of mechanical cooling (and heating) devices, leading to a high demand on electrical energy

²¹ No doubt, contemporary communication and media have counteracted this point.

and the rapid consumption of these mechanical (capital) devices themselves. Most building practices and by-laws have not enforced energy saving standards and have permitted architects to use unsuitable materials in walls and roofs, and large glass openings. The use of the automobile has added to the energy bill, since one must use the car to fulfill any minor activity.

5. The mixing of vehicles and pedestrians, causing a maximum of health problems due to air pollution²²

6. Excessive water consumption to irrigate large spaces that have been left exposed between buildings and adjacent to automobile roads.

7. Dwellings that, whether villa type or apartments, overlook each other and destroy

²² Limited pollution was caused by animals moving in streets, but this was minimal compared to the present air and water pollution caused by automobiles and industry.

one another's privacy completely.²³

If we add to the above points the present building regulations and by-laws, we shall find that the result is incohesive architecture, discord in the overall urban theme and extrovert structures that do not respect climatic considerations or Islamic principles or even the functional human values mentioned before.

III. Proposals For Benefiting From Islamic Urbanism

A European, visiting professor²⁴ to Saudi Arabia stated in one of his lectures that if we (in the Muslim world) continued to plan our cities the way we were doing, we would lose our religion! He added that if we let our urban

²³ Some citizens have been forced to build fences of up to ten meters high to protect their external gardens from their neighbors view; a funny solution to achieve privacy. This is due to the shortcoming caused by planners and architects.

²⁴ Professor Egbert Kossak, head of department of planning, Stuttgart University, in a lecture at King Faisal University, Dammam, Saudi Arabia, 1977.

development pattern depart completely from our traditional physical forms, we would destroy our original social values!

We do not quite agree with him in this strong comment, since we believe that Islam is the Divine religion of the Almighty, who has promised to protect it:

".....Lo! We, even We, reveal there reminder,²⁵ and Lo! We verily are its guardian." (Al Hijr 9).

Allah has promised eternity for Islam, its development and its spreading to all mankind. Muslims have faced circumstances that would have normally uprooted any faith, but Islam, with its vitality and truth has survived all these trials, harsh conditions, and persecutions and has been able to reach almost all geographical regions, nations, languages and climates.

Still, we have to agree with Prof. Kossak that changing the basic material, social, behavioral or economic principles of Islam, considering them to be "External" or "Secondary", must eventually affect the Islamic personality; its way of thinking and its psychology as a whole. If we have any intention of preserving the Islamic

²⁵ This reminder refers to the Holy Quran in particular. The Quran today stands as the only authentic Holy Book.

societies, we have to do our best not to destroy many inherited traditions and values, including the basic values of the traditional Islamic town.

We do not believe that there is one idea model for urban development but several, some of which are better than others, and that there are variable social, economic and geographic conditions which necessitate different solutions.

Nevertheless, from observations, both academic and practical, in both eastern and western cities, we can state that the most suitable model for urban life, particularly in residential areas, is the high density/low rise development (HD/LR). This is identical to the basic value in the Islamic town. Overall, we could summarize our recommendations as the following:

Urban Characteristics²⁶ Of The Proposed Contemporary Islamic Residential Neighborhood²⁷

1. High density development with attached buildings for the efficient and economical utilization of land, reducing walking distances and utility lines within the neighborhood. Cost of external fences is also reduced.²⁸

2. Separation of pedestrian and vehicular traffic, leading to a safe urban environment for the family. Pedestrian activity is encouraged in walkways of human scale, enriched by shadow from walls or landscape.

3. Provision of a "Main Activity Pedestrian

²⁶ Peter Land, "The experimental Housing Project, Lima, Peru."

²⁷ All religions and races have lived in the Islamic city for centuries. Churches and synagogues all over the Muslim world today are a clear proof and witness of this.

²⁸ In some contemporary housing projects the length of plastered brick walls is several hundred kilometers, an additional undeclared cost of contemporary practices.

Spine" around which all services exist; schools, shopping, religious and community buildings. This is equivalent to the shopping mall or "Kaisaria" in the Islamic town, being the most important element for movement and activity in the neighborhood. All secondary walkways are connected to this spine.

4. Streets that do not cross the residential area, but penetrate deeply into it, serving dwellings as well as the activities along the main pedestrian spine. These are connected to the external "Ring Road" and compose an alternate finger system.

5. Houses that are attached, walkways of a limited scale and external spaces, controlled in size. It is feasible to landscape these spaces economically.

Housing Characteristics In The Contemporary Islamic Neighbourhood

1. Every family owns a dwelling built on an independent plot. Houses are attached. Windows open onto internal courtyard gardens and do not overlook neighbors' roofs, gardens or semi-open spaces, thus offering complete privacy to the family. The woman has complete freedom in this private space to enjoy sun and fresh air



Fig. (7).

Courtyard beauty in a contemporary dwelling, Riyadh, Saudi Arabia 1973.

and to watch her children at play.

Despite the complete privacy and "Independence" of each housing unit, the attachment of one house to another creates a sense of "Gathering" of the community and neighborhood.

2. Courtyard gardens are mainly internal, surrounded by walls²⁹ and are central to the dwelling. Nevertheless, open spaces could be classified in the following three categories:

a. The "Visitors" garden or courtyard, mainly for male visitors, external and adjacent to the visitors

²⁹ The definition of the Garden of Eden in some texts is: "The garden surrounded by walls" which resembles our contemporary definition of a garden courtyard.

room or "Majllis".³⁰

b. The internal courtyard for the family.

c. The backyard for service and storage.

3. Each family can choose its own house plan within previous guidelines and limitations. The structural design and construction details permit horizontal or vertical expansion.

4. In the case of complete housing projects (vs. land subdivision only) standardization and prefabrication techniques are adopted for economy, but allow variety in form, color and size of unit and spaces. This achieves individual identity and a mix between different classes of the population.³¹ A capable team of architects and engineers could easily achieve this and design the "Ideal" contemporary, efficient neighborhood, preventing social and economic segregation, yet achieving economy and

³⁰ The "Majllis" traditionally had three functions as the guest room, dining room and sleeping room for male visitors. This concept would save considerable costs, particularly in poorer countries.

³¹ The Islamic society in modern definition is a classless community, socially, economically and racially.

function.

5. Dwelling units are single or double storied, but Islamic privacy can always be maintained. The use of the sunscreen or "Mashrabiya" is feasible, recommended or mandatory, according to the situation. The elevated "Garden Houses" or "Terraced Houses" are possible, but the terrace is open to the sky, avoiding overlooking the neighbors.

Proposed Areas For Benefiting From The Concept Of Contemporary Islamic Urbanism:

1. New neighborhoods of present cities.
2. New towns around existing metropolitan areas.
3. New frontiers, particularly those of hot deserts.
4. Tourist towns.
5. The old parts of cities, particularly those of special historical value such as in Egypt, Tunisia and Morocco.

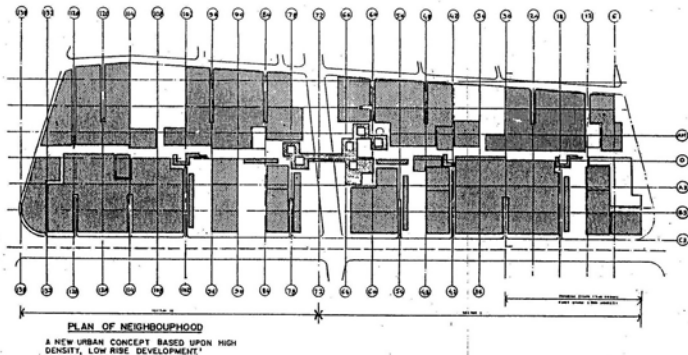


Fig. (8)

The experimental housing project, Lima Peru.

IV. Contemporary Projects Incorporating Islamic Urban Principles

We present the following examples in order to show the possibility of using the

Islamic values of urbanism in our contemporary world, for different communities with different social backgrounds in different parts of the world for different economic levels.

It would not be exaggerating to say that the principles and values of Islamic urbanism are of the best that we need to achieve for our contemporary urban settlements, with the objective of establishing "Human Societies".

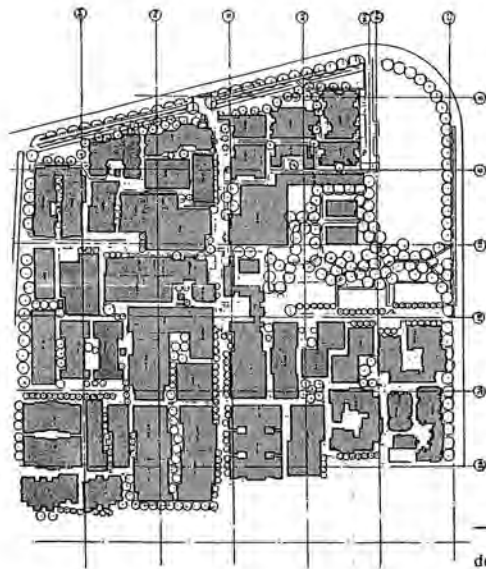


Fig. (9)

Plan, First Building Stage
The experimental housing
project, Lima, Peru.

Societies that can live, produce, worship, and entertain with happiness, efficiency, economy and a minimum of waste and suffering. Societies that will be an assent to humanity,²² contributing to its development, its civilization and the coming generations.

²² Some scholars believe that national development can never be achieved in inefficient urban places such as most of the old overcrowded capitals of the third world.

**A. The experimental housing project:
Lima, Peru.**

This project was designed and built under the direction of the United Nations. The team leader was Peter Land.³³ It was for a district in the city of Lima, Peru, South America, and was to contain about two thousand housing units for limited income families.

The plan was drawn for a central pedestrian spine, a cul-de-sac street network, perpendicular to the surrounding loop. An international competition was launched and several solutions were chosen from competitors' submissions.

Architects from all over the world participated, and several of their designs were built for comparative purposes, but all were low rise/high density courtyard houses, well placed in a landscaped neighborhood, complete with services and utilities. Different building methods were used, i.e. standard or advanced technology, comparing of standardization techniques, costs

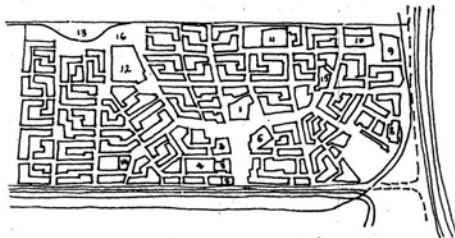
³³ Professor Peter Land, presently a professor at the School of Architecture at IIT, Chicago, Illinois, USA, is a pioneer in the subject of low rise/ high density courtyard housing.

and quality. The project stands now as a unique achievement.

B. Algourna village, Upper Egypt

Designed by the famous architect, Hassan Fathi, with the Islamic values of the old Egyptian village, a low rise/high density courtyard development was built for the peasants in upper Egypt.

Hassan Fathi obtained the first gold medal ever to be offered to an architect, from the International Union of Architects (UIA) in 1984-85, for his theme: "Architecture For The Poor", which was clearly displayed in this village. All buildings were built with adobe in simple vaulted or domed structures. The theme focussed on the necessity of self-help, low cost techniques, avoiding the use of extremely expensive materials, mainly cement and steel, for that vast majority of low income people all over the world. These materials, in addition, have low quality insulation characteristics that qualify them as the most unsuitable for hot climates, even without their considerable, additional cost. The proposed techniques should, as well, be able to reach the vast number of



Legend:

- | | |
|--------------------|----------------------------|
| 1. Mosque. | 10. Social Center (w). |
| 2. Village Hall. | 11. Girls' Primary School. |
| 3. Theater. | 12. Boys' Primary School. |
| 4. Sporting Club. | 13. Hammam (Public Bath) |
| 5. Crafts Exhibit. | 14. Church. |
| 6. Khan. | 15. Artificial Lake. |
| 7. Market Place. | 16. Park. |
| 8. Crafts School. | |
| 9. Police Station. | |

Fig (10)

Algourna Village by Hassan Fathi.

deprived people with a minimum of technical help, since their governments are already way behind in existing programs for decent housing in standard reinforced concrete structures.

C. New Neighborhoods in Madina

The government of Saudi Arabia distributes housing lots in approved subdivisions and in certain districts. The Amanat³⁴ of Madina Munawara has undertaken the responsibility of designing the government owned land as part of the overall master plan.

Each district was composed of different neighborhoods that contained all services. A pedestrian network was separated from that of vehicles. The nucleus of the design was the cul-de-sac, surrounded by about 14 to 16 attached courtyard houses that formed small community.

³⁴ Amanat means honesty, is used as secretariat but in this context as the Municipality.

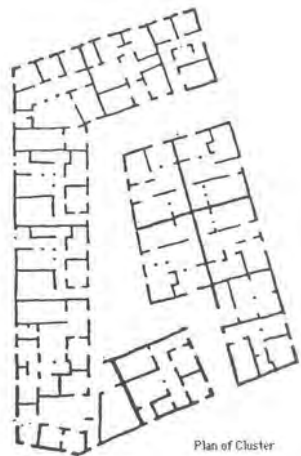
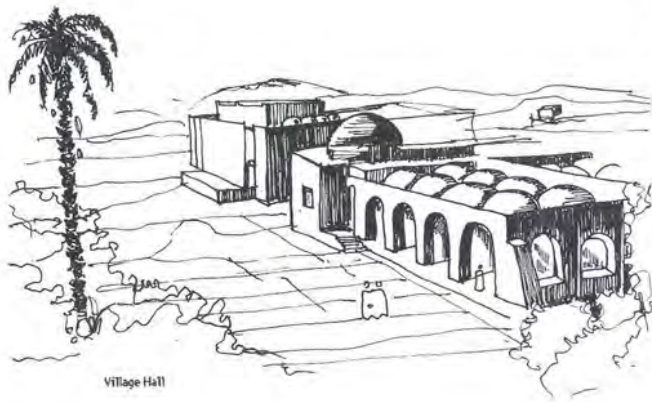
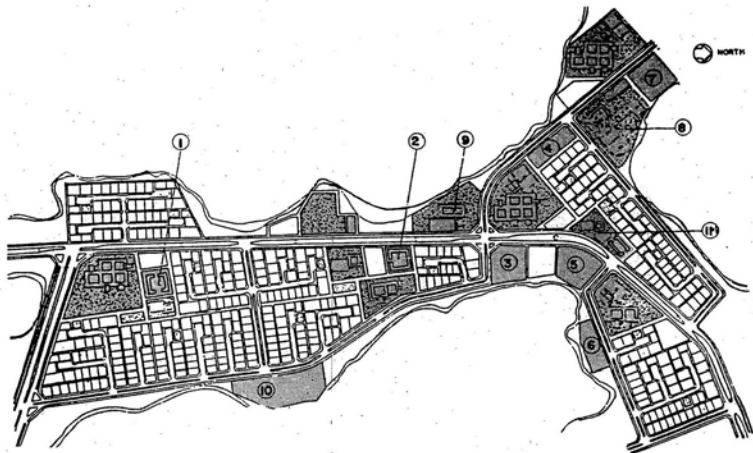


Fig. (11)

Algourma Village by Hassan Fathi.





1. Neighborhood Shopping & Mosque
2. District Shopping
3. Fire Station
4. Cemetery
5. Police & Traffic
6. Municipality
7. Passport Control
8. Club
9. Health Facility
10. Utility

Fig. (12)

Alrabwa New District, Madina Munawara 1983

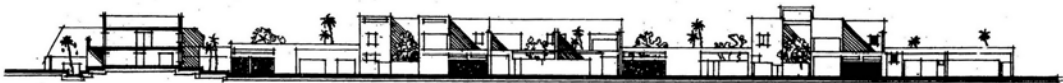


Fig. 13

Cross sectional elevation of a typical cul-de-sac.

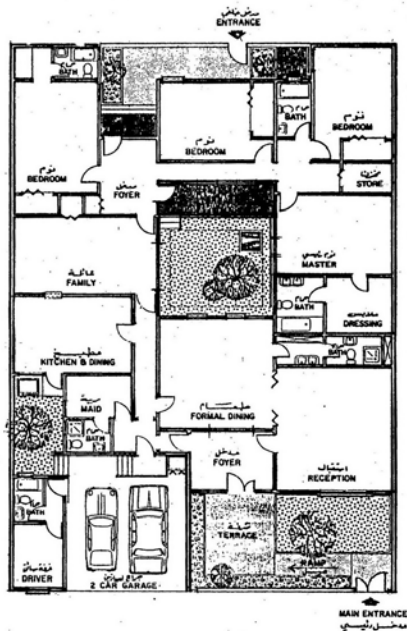


Fig. (14)

Prototype Dwelling, Al-Rabwa District,
Almadina Almonawara.

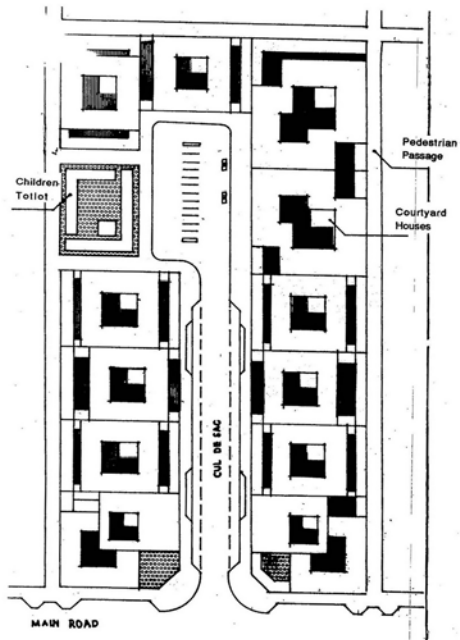


Fig. (15)

Typical cul-de-sac street in Alrabwa district, Medina, with attached courtyard houses.

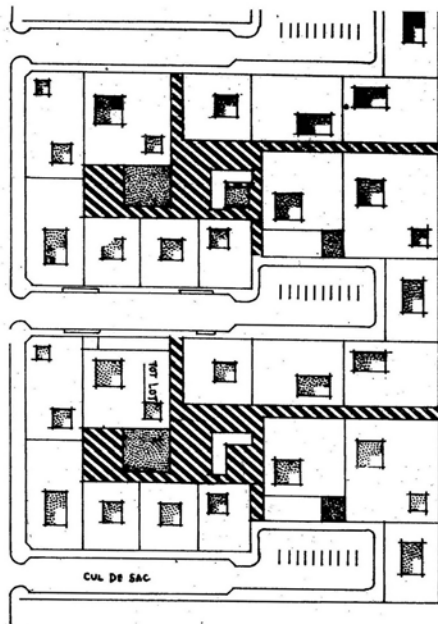


Fig.(16)

Alternative proposal for cul-de-sac, Medina 36

External spaces were carefully landscaped and a recommendation was made to design all public buildings with courtyards, leaving no wasted external spaces between them, i.e. building on boundary lines directly, without setbacks, except where otherwise specified.

A guiding manual was prepared for citizens and ten different house plans were presented for reference.

D. The Ministry of Foreign Affairs
Staff Housing Project Riyadh,
Saudi Arabia.

Designed under the direction of the Riyadh High Commission for Development,³⁵ a district for about 600 housing units was completed in 1983. These units vary from large to small but the overall scheme was designed to meet the basic requirements of the Islamic contemporary neighborhood.

Financing was available, and the designers produced one of the best architectural, landscape architectural, planning and engineering works of the decade. All services are available and of excellent quality;

³⁵ A special board set up to undertake major developments in Riyadh, Saudi Arabia.

kindergartens, schools, club houses for males and females, shopping, mosques and recreational parks are all part of this successful development.

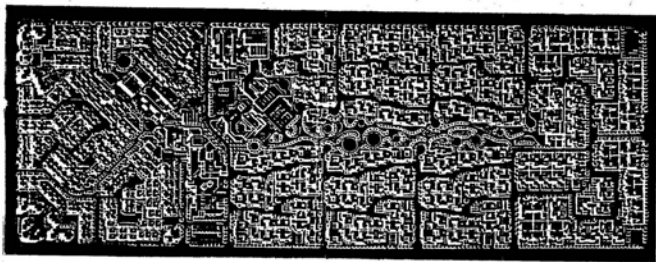


Fig. (17)

Master plan, Ministry of Foreign Affairs Staff
Housing Project, Riyadh, Saudi Arabia.

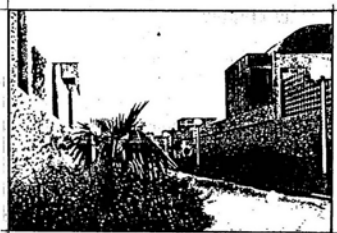
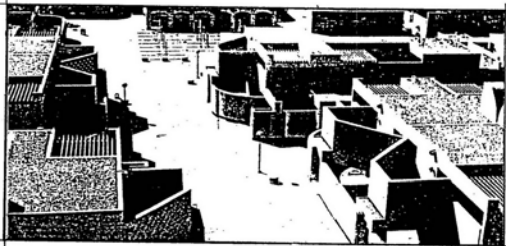


Fig. (18)

Parts of the Ministry of Foreign Affairs Staff Housing Project, a successful example of a contemporary Islamic neighborhood.



V. Conclusion

From this presentation, displaying influences on "Islamic Urbanism", contemporary urban development, concrete proposals and contemporary examples, we hope that we have introduced some basic facts that shed light on Islam's program and the contribution of Muslims to a now vital part of human activity, namely, urbanism. We hope to have shown that "Islamic Urbanising" values and principles in this field are worthy of study, consideration and implementation in our present urban developments.

The lessons learned here are related to lively issues and should not be considered mere historical knowledge for academic exercise, but rather guidelines that tackle difficult contemporary issues, affecting both east and west, rich and poor. We advocate that the issues of Islamic urbanism continue to be active and vital for a correct approach to urban planning, design and architecture for all mankind.

Ahmed Farid Moustapha Dhul - Hijjah 1406
August 1986

VI. Appendices

Appendix (1)

Islamic urban values, basic Islamic values, rights and duties related to urban development.

Appendix (2)

Qualitative comparison:

A proposed criteria and assessment between contemporary "Islamic" neighborhood design versus present subdivision practices.

Appendix (3)

Cost comparison:

An approximate cost comparison between contemporary neighborhood design versus present subdivision practices.

Appendix (1)

Basic Islamic Values, Rights and Duties, Related to Urban Development.³⁶

(A) Values:

1. Viceregency on earth:

Man is the representative (Khalifa) of Allah and subordinate to Him. Man is not free to do as he likes, but he must be guided by the revelation. Stemming from this are the requirements of justice, righteousness (Ihasn), perfection and avoiding over utilization.

2. Revival of the land through building:³⁷

Ownership is a consequence of such revival.

³⁶ Obaid Al Sibayi, "Towards Affirming Islamic Architecture", diploma thesis, The Institute for Technology, Fine Arts, Architecture and Urbanism, Tunisia, 1982.

³⁷ Revival can also be through cultivation of the land.

3. The right to housing:

Within this are to be found tranquility, serenity, protection from the external climatic elements and from people, (eyesight and noise).

4. The economics of urbanism:

The recommendation to minimize the costs of all building activity.

5. Equality in the society:

Equal opportunity in land distribution and ownership.

(B) Rights and Duties:

1. The philosophy of freedom:

In the context of preserving the five necessities; religion, self, sanity, property and descendants.

2. The principle of "No harm".³⁸

No harm should be inflicted by you on others, whether you will or will not benefit, nor shall the individual have the right to hurt nor will he be hurt by the group or the society. This

³⁸ "La darar wala dirar fee al Islam", Hadith.

has, of course, many implications in land use.

3. Housing and its conditions:

The freedom of the occupant within his house, and his protection from cold, heat, wind, rain, the eyes and noise of passers-by and neighbors.

4. Freedom of access:

The right of the road (to be kept clean and free from obstacles), defining the width of the road, and the width and use of the footpath or sidewalk.

5. Ownership:

a. Absolute ownership: subject to the condition that no harm is inflicted upon others (eg: noise, smoke, obstruction of sunshine or ventilation and eyesight into private areas).

b. Ownership for use only: footpaths or sidewalks.

6. Private ownership for public use (Hiyaza).

7. Privacy of buffer zone (Hareem):

The transitional or private area around almost all things; the individual, the family, the

dwelling, the tree,³⁹ the well, the river...! All have areas around them 'which should not be approached, abused or which are considered sacred (Haram).

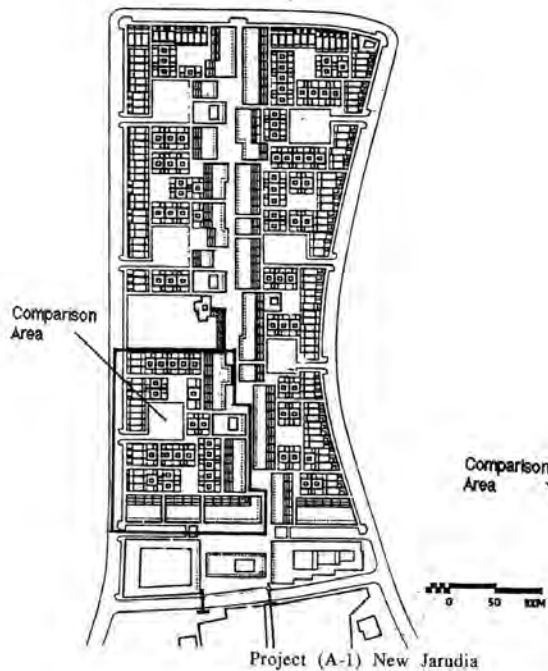
Appendix (2)

Qualitative comparison

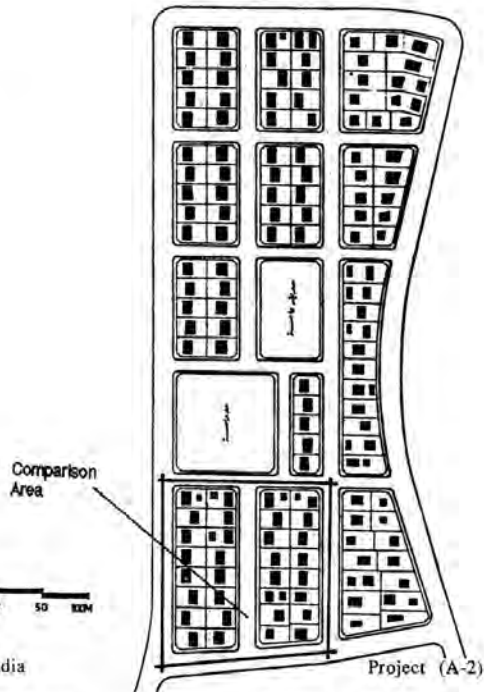
A proposed criteria and assessment of contemporary Islamic neighborhood design versus present subdivision practices.

Project (A-1) is a proposal for a new neighborhood at Jarudia Village in the Qateef region in the Eastern Province of Saudi Arabia, while project (A-2) is a typical subdivision for the same parcel of land using a grid-iron pattern.

³⁹ The hareem of a palm tree is about 10 meters. the word "Hareem" has been widely used by orientalists and the media to hurt Islam, referring to women (i.e. Harem), even though it has a wide, noble, practical and important meaning in Arabic.



A proposed development in the Eastern
 of Saudi Arabia based upon "Islamic"



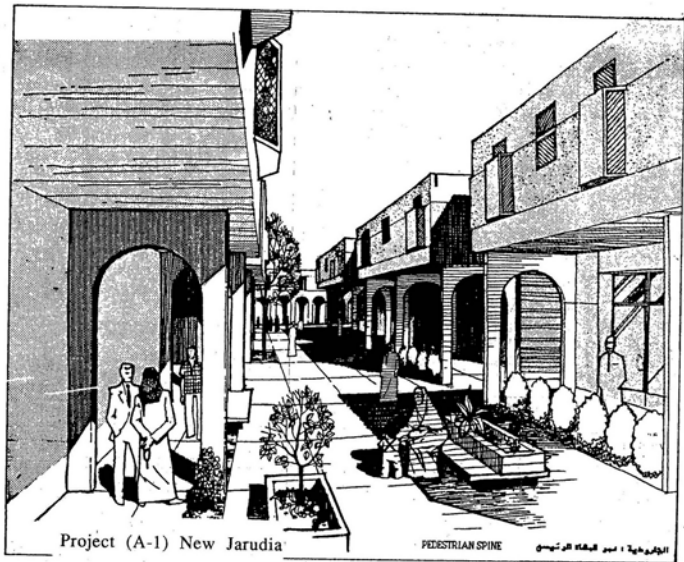
A typical hypothetical subdivision for New
 Jarudia, based
 upon present practices 44

Qualitative Comparative Analysis

Suggestions For Housing (1)	New Jarudiyah Plan Project (A-1)	Estimated Score Out Of 10	Conventional Grid-Iron Designs With Present Building Bylaws, Project (A-2)	Estimated Score Out of 10
Avoid Setbacks	Setbacks Are Avoided	1	Not Provided: Setbacks Mandatory By Building Bylaws	0
Sheltered Walks And Arcades	Provided	0.7	Not Provided: Setbacks Mandatory By Bylaws (2)	0
Provide Street Furniture	Provided	0.5	Not Provided Because Of Nature Of Subdivision Ownership	0
Provide Small Shops As Part Of Dwelling Area	Provided (under arcades)	1	Not Allowed In Most Cases; Some Owners Convert Garages To Shops	0
Provide Internal Pedestrian Street With Partial Shading And Gathering Space	Provided	1	Not Provided	0
Provide Parking For Each Housing Unit	Provided For Majority Of Housing Units Except Apartments	0.5	Provided	1
Provide Covered Recess Above Entrance, Don't Group House Entrances	Most Cases, Architectural Detail Provided	1	No Recommendations Made In Bylaws, Architectural Detail Not Normally Provided	0.5
Use "Mashraslas" For All Exterior And High Silts For Ground Floor Level	Provided	1	Not Provided; Not Required In Bylaws	0
Landscaped Courtyards For All Houses	Provided	1	Size Of Lots And Setbacks Don't Permit; Not Provided	0
Provide Covered Arcades And Covered Parts In Interior Courtyards	Provided	1	Not Provided; Not Required In Bylaws	0
Provide Privacy For All Housing (from outside viewers)	Provided	1	Not Provided And In Most Cases Completely Violated (2)	0
Conformity With Standards	Total New Jarudiyah	9.7 (97%)	Total Conventional Designs	1.5 (15%)

(1) Jamil Akbar, "Support For Courtyard Houses": Adjusted Table

(2) Score Should Be Negative for (A-2)



A proposed development in the Eastern Province of Saudi Arabia based upon "Islamic" urban values.

Appendix (3)

Cost comparison:

An approximate cost comparison criteria for part of a contemporary Islamic neighborhood design, versus present subdivision practices.

Project (A-1) and project (A-2) described in appendix (2).

**Comparative Analysis Of Cost Estimates
For Contemporary Subdivisions (1)**

Utility	Unit Price Saudi Riyals	New Jarudiyah Project (A-1)(*)		Typical Contemporary Subdivision (A-2)(*)	
		Total Measure Of Utility	Total Approx. Cost (SR)	Total Measure Of Utility	Total Approx. Cost (SR)
Street Lighting (including cables)	250 SR/M	1170 M	292500	816 M	204000
Main Electricity Cables	250 SR/M	1170 M	292500	816 M	204000
Main Telephone Cables	100 SR/M	1170 M	117000	816 M	816000
Main Street Pavement (hot asphalt)	60 SR/SQ.M	3144 SQM	188640	7000 SQM	420000
Parking	60 SR/SQ.M	1634 SQM	98040	(\$2)	0
Main Sidwalks (2M) Wide (cold asphalt)	50 SR/SQ.M	3430 SQM	171500	1732 SQM	86600
Concrete Curbs (cornerstone)	60 SR/M	1170 M	70200	816 M	48690
Main Potable Waterpipes (2 inches)	150 SR/M	1170 M	175500	816 M	122400
Main Rainwater Drainage Pipes (16 in)	2300 SR/M	1170 M	2691000	816 M	1876800
Main Sewage Pipes (10 inches)	2000 SR/M	1170 M	2340000	816 M	1632000
Fences (outside walls)	400 SR/SQ.M	1008 SQM	403000	1924 SQM	769600
Total Cost (SR)			6930680		6180090
No. Of Dwelling Units		114 Units		32 Units	
Cost/Unit (3)			60795 (SR)		193127 (SR)
Area Of Unit		180 M2		250 M2	
Total Building (all units)		20520 M2		8000 M2	
Cost Per SQ. M Of Building (4)			315.4 (SR)		772.5 (SR)

(1) New Jarudiyah (A-1) is a project designed on the basis of contemporary Islamic Urban Values while project (A-2) is a typical subdivision based upon grid-iron.

(2) No special parking lot. Parking is in the street.

(3) Typical contemporary subdivision costs are more per dwelling unit by about 217 % than in New Jarudiyah Project(A-1).

(4) Utility costs per square meter of buildings are 144% more in the typical contemporary subdivision (A-2) than in Jarudiyah Project (A-1).

(*) Area of lot used for comparison: Project (A-1) = 27215 M2; Project (A-2)= 27360 M2 (SR) Saudi Riyals. One US Dollar = 3.75 Saudi Riyal

Area calculations⁴⁰ for selected part of (A1) project

Type (A) units (courtyard houses)
22 units @ 230 SQM2 (av.) = 5,060. M2

Type (B) units (town houses)
17 units @ 230 SQM2 (av.)=3,910. M2

Type (C) units (terraced villas)
26 blocks (composed of 3 units each)@
500 M2 (av. for 3 floors) =13,000 M2

Total = 21,970 M2

Cost per SQM =6,930,680./21,970. = 315.4 R.S.⁴¹

Area calculations for the selected part of (A2) project

32 units 250 M2 (av.) = 8,000. M2

Cost per sq. M = 170,186/8000 = 680.7 R.S.

⁴⁰ Area of all units assumed based upon personal experience in Saudi Arabia.

⁴¹ R.S. is the Saudi Rial = 3.75 U.S.\$ (1987)

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