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The Story Line

Introduction

- What Is Healthcare Architecture And How Does Islam View Them?
- Islamic Values In The Contemporary Healthcare Architecture
- The Case Studies-Malaysian Experience In The Contemporary Age

Summary

Introduction

What is Islam?

"Islam" literally means to submit to God's will or Law"

and another meaning is "Peace".

 Like all other great religion, Islam condones good universal values that transcend time, place, race, colour, creed, social status, gender and its application to Muslims and the Non-Muslims as creatures of God.

In healthcare, Islam and Muslims had played major roles in the history of medicine. However, little has been said or written about the healthcare facilities Islam had established since its emergence.

Objective of the Presentation

- Thus, the objective of this presentation is to provide a general overview of:
- what Islam is ,
- how its values were being assimilated in the context of designing and planning healthcare facilities or healthcare architecture in medieval history
- As well as its application in the contemporary world with Malaysia as a case study.



What Is Healthcare Architecture And How Does Islam View Them?

Healthcare Architecture

 Healthcare Architecture confines only to architecture for health i.e. buildings or architecture that are purpose-built or adapted to bring about wellness to patients or those who seek physical, mental and some time spiritual well-being such as clinics, health centres, hospitals, sanatoriums and other for the same function.

How Does Islam View Them?

- Islam is a way of life based on definitive source of Islamic doctrines
- the Holy Qur'an and
- the Sunna (traditions of the Prophet Muhammad, peace be upon him).
- These laws were then transcended into the design of any facility for the purpose of accommodating and facilitating that very way of life.

- Even though the holy book does not exactly mention the words *architects, planners, engineers*, etc., God has mentioned Man as its inheritors and trustees.
- Man thus enjoy a certain nobility and greatness over other creation.
- By being God's khalifah or vicegerent on earth, he/she has a certain role and responsibility to creation.

- "When Man works for this universal harmony; he is a Muslim in the complete sense of the word. He is virtuous. On the other hand, when man works against this natural order, he creates discord, injustice and evil. He is vicious".[1]
- By virtue of the intellect and freedom of the choice given to him, Man is thus responsible for whatever he does.

[1] Islam the Natural Way, Abdul Wahid Hamid, MELS, London, 1989.

Islamic Law or the Shari'a

In Islamic Law, there are five (5) "fundamental rights" that are to be guaranteed to all citizens:

- Preservation of Life;
- Religion;
- Property;
- Personal honour ('ird);

and Sound mind (aql).
The foremost attention (in law) is
to be paid to those who have

suffered loss of mind and hence loss of honour."

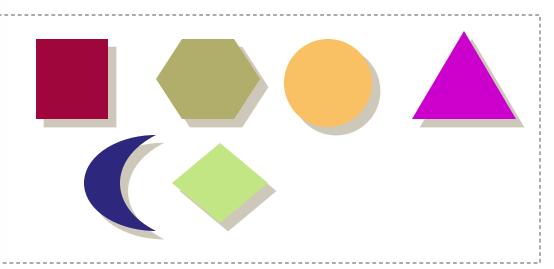
The principle of "no harm" from a Hadith or Sunna that means

"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 hurt by the group or the society",

insinuates that the facility provided should be **safe** for utilisation of the purported user.

Safe meant here is both physical (noise, smoke, obstruction of sunshine or ventilation and eyesight into private areas) and psychological.

The resultant architecture from the different cultural background of the Muslims from all parts of the world may portray differently in the physical form although they were established with similar concepts and values



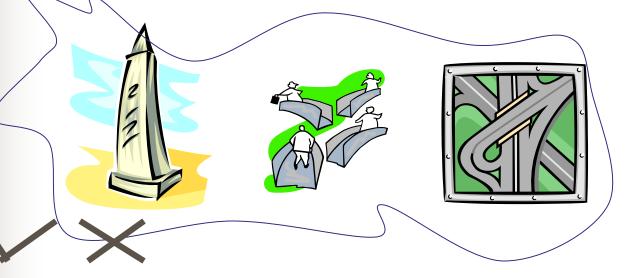
Over generalisation of the physical architecture as they may only be appropriate for certain cultures but inappropriate to some other cultures could also provide a wrong picture to what Islam actually views them as.

Cultural influence and not religious Some cultural influence contrary to religious tenets or against the Shari'a is not acceptable to Islam

Islam had provided clear rules on what is acceptable and what is not in its Shari'a Law and in areas that were unclear, Muslims are encouraged to discuss with those whom the society had regarded as people-in-theknow, the jurist, the ulama', to provide the necessary guidance.

On Modern or Contemporary Issues...

Islam encourages one to make intelligent judgement with moral consideration or ijtihad in certain circumstances not just mere rational ones.



Without the lions

What is Islamic

Architecture ?

a h a m b r a

court of the lions

more than just Q spectacle of domes and minarets, of arches and kiosks, of palaces and gardens or mere decoration ...it is a true expression of a strong determined faith, and rich people enthusiasm.....

express the religious beliefs, social and economic structure, political drive, aesthetic motivation and artistic sensibility."

a Functional Architecture, using local materials and free form artistic dogmas such as symmetry or the artificial and expensive Greek and Roman orders.

- of adaptability i.e. it can adapt to available space or existing architecture;
- of economics with value engineering i.e. it is not to be planned or design with unusable or wasted spaces;
- of technology or functional base aesthetic i.e. the form or decoration resultant from structural or functional expression;
- safe for the user;

of moderation, the structures and built forms are arranged in such a way to be utilitarian in nature, modest in design and without extravagant to keep the balance of the spiritual needs against the imposition of any psychologically oppressive physical conditions.

The result is free elevations, free forms and often original and exciting compositions reflecting function, simplicity, comfort, beauty,which are the a major requirement of the Shari'a."

 Like all religions of the world, Islam covers the life of a human being from before birth to after death.

The healthcare expression of from Womb-Tomb and from Cradle to Grave only covers part of what Islam governs the Muslims.

Healthcare Architecture

Islamic Healthcare architecture therefore confines itself to playing a role in assisting humans (regardless whether they are Muslims or Non-Muslims) back to **healthy state** while he/she is alive on this earth.

What is complete health in Islam?

For Muslims, the state of well-being or health is the state of attaining health physically, spiritually and mentally (psychologically) so as to provide them the ability to always submit oneself to the Creator in all his/her faculties in tact.

How does Islam and Medicine came into being

On the emergence of Islam as a religion, Muslim physicians such as Ibn Srabiyun or Serapion, Razis and Avicenna emerged from the 9th to 12th centuries, base on the Greek era in the form teachings from Asclepius, Hippocrates, Rufus and Galen, provide Europe with ideas and practices as basis for modern medicine.

Islam values the existing medical heritage, theories and practice with the aim of finding ways of dealing with medical problems common to all people such as disease, pain, injuries and successful childbearing.

These knowledge were then assimilated and elaborated by a community of both Muslim and non-Muslim physicians across the vast area stretching from Spain, North Africa to India and the East and. has shown great variation as well as diversity as it developed over the 12th centuries until today.

Local conditions and factors governing communications, the institutions and policies responsible for the delivery of medical care were subjected to political and social fluctuations although they possessed a shared tradition.

- Among factors governing the general health of the Islamic community :
- dietary and the fasting laws;
- the general rules for hygiene;
- burial of the different religious communities of Muslims, Jews, Christians, Zoroastrians and others;
- the climatic conditions of the desert, marsh, mountain and littoral communities;
- the different living conditions of nomadic, rural and urban populations;
- local economic factors and agricultural successes or failures;

- population migration as well as travel undertaken for commerce;
- attendance at courts; or as a pilgrimage;
- the injuries and diseases attendant upon army camps and battles;
- and the incidence of plague and other epidemics as well as the occurrence of endemic conditions...."[1].
- Islamic Culture and the Medical Arts: Medieval Islamic Medicine page 2, http:www.nlm.nih.gov/exhibition/Islamic_medical/Islamic_02.htm 1.

Healthcare Architecture of the Islamic Medieval Era

- Facilities includes hospitals, asylums, dispensaries, health centres or clinics, homes and hospices.
- The hospitals, which were large urban structures, were mostly secular institutions open to all, male and female, civilian and military, adult and child, rich and poor, Muslims and non-Muslims.

- these healthcare facilities served several purposes including:
- as a centre for medical treatment,
- a convalescent home for those recovering from illness or accidents,
- an insane asylum,
- a retirement home giving basic needs for the aged
- and the infirm who lacked a family to care for them
- as well as the terminally ill.

Healthcare Facilities

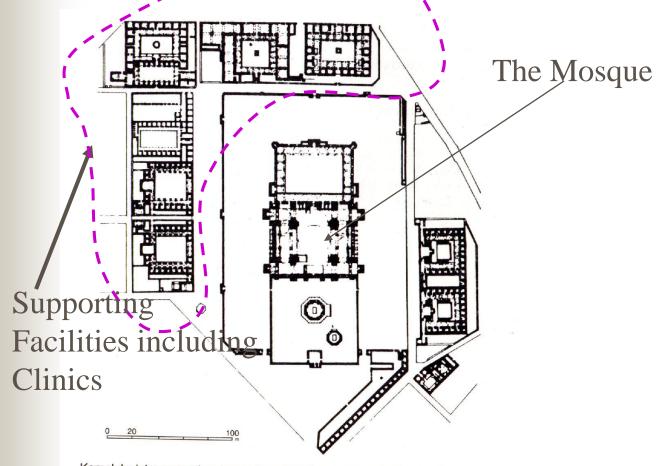
- Most of the hospitals of the medieval Islamic era were established in Cairo, Damascus, Granada, Seville, Cordoba and Baghdad.
 - By the 12th century, in Baghdad alone there were 60 hospitals. In the 13th Century, there were hospitals in Turkey and the Indian provinces.[1]
 - These hospitals were well organised with different wards for different types of illnesses, outpatient departments and theatres where medical students could attend lectures.

[1] *Medicine Through Time-Renaissance-Hospitals and Training*, http://www.bbc.co.uk/education/medicine/nonint/renaiss/ht/rehtfc.shtml

 The first known institution to be set up by the Umayyad caliph al-Walid in 705-715
A.D. was a hospice for lepers and the blinds in Damascus.

The hospital or bimaristan proper only started from the Abbasid caliphate period from 750 to 1257 when all major cities were compulsory to be complemented with a hospital.

Sulaimaniyah Complex, Istanbul (1550-1557 A.D)

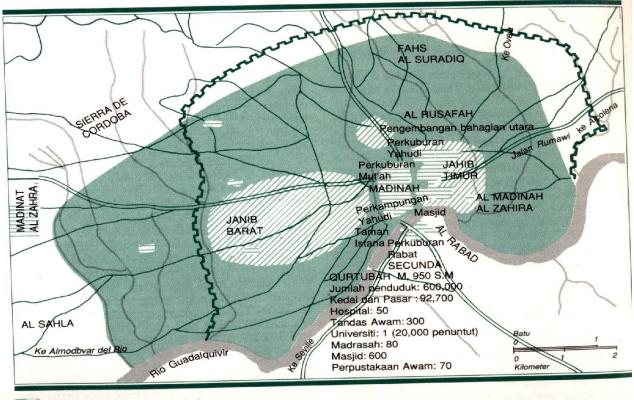


Kompleks ini mengandungi empat madrasah, sekolah pengajian hadis, sekolah rendah, sekolah perubatan, hospital, *caravansary*, rumah rehat awam bagi pengembara, masjid, perkuburan, mandian Turki, dapur kecil dan pasar.

Rajah 22.10 Kompleks Sulaimaniyyah, Istanbul (1550 - 1557).

Cordova, Spain 950AD

Peta 56: Qurtūbah (Cordoba): Mutiara Barat, 950 Masihi.



- Kawasan kediaman dan kebun Anggaran lokasi benteng kota
- Jalan raya
- ____ Laluan
 - Sungai

Among facilities provided were 50 hospitals, 300 public toilets.....

- Conversion of palaces to hospitals with expensive furnishing and beddings were a trend in Cairo, Damascus, Baghdad and even in the Indian Sub Continent of the Islamic world.
- These were inspired by the Islamic teachings about the general welfare of the poor and specifically about care of the ill people as quoted in the Qur'an:

"You shall not attain virtue unless you spend (for the welfare of the poor) from the choicest part of your wealth" (3:92)

- As it was a requirement that those who provide the services were qualified personnel, these hospitals were also established as teaching hospitals.
- Many hospitals or asylums were established solely as mental hospitals while larger hospitals only provide quarters for mental patients.
- Mobile dispensaries were made available to look after the health needs of the countryside as well as daily visit to the sick in prisons

Examples of the Wellknown Healthcare facilities of the Islamic Medieval Era

- Adudi Hospital, Baghdad
- 982 A.D with 24 doctors of different specializations.
- Nuri Hospital or Nur Eddine Bimaristan, in Damascus in 1154 or 1175 as a teaching hospital.

The Mansuri Hospital, Cairo, Egypt in 1284 as the largest hospital hospital of the day

Nuri Hospital, Damascus

- Has lecture halls,
- treatment halls,
- laboratory for pharmaceutical industry,
- sleeping dormitories or wards and other important facilities contributing to the treatment of diseases.
- provision of worshipping halls near the clinics
- rehabilitation department for the mentally retarded and neural disease
- as a teaching hospital, patients' record were kept.



The Mansuri Hospital, Cairo.

- Men and women were admitted in separate wards.
- All races, creed, and sex, age group, single or in groups, foreigners or local citizens, Muslim or non-Muslims, were accepted without any limit to their inpatient stay until they are fully recovered.

- wards were equipped for treatment of things as diverse as fever and eye diseases as well as internal medicine and surgery,
- had its own pharmacy,
- male and female attendants,
- lecture rooms,
- a well-stocked library,
- a mosque for the Muslims and a chapel for the Christians.
- a hospitable place for a wholesome recovery of patients, the entire visit,
- stay and treatment were free.

Other therapy

- Music were generally use as treatment for the mentally sick, depressed person besides being an entertainment for other patients as well. The Al-Nuri Hospital of Damascus were also known to have introduce music and concerts other than episodes before the patients.[1]
- Story telling were also among the therapy use to sooth the sick.
- [1] Nur Eddine Bimaristan: great medical edifice of the Islamic Civilisation.http://www.arabicnews.com/ansub/Daily/Day/9901161/1999 011635.html.

Medieval Islamic Hospitalsummary

- served all irrespective of colour, religion or background;
- As a non-religious building, hospitals were run by the government, an appointed physician, rather than the mosque or church personnel;
- Built in all cities and towns as well as complexes part of community facilities
- manpower in these hospitals were also of different faith and background but able to work together towards common objectives i.e. towards the well-being of patients;
- only the qualified physicians were licensed to practice in these hospitals.

- Nurses were also trained in these hospitals;
- The wards were generally divided into inpatient and outpatient department;
 - the inpatient on admission were given special clothes while their other personal items were being stored for safe keeping until they were discharged.
 - On their discharge from the hospital, they were also awarded with some fund to support him/herself for a limited span of time so as to be able to return to work in good form

- In respecting privacy of the individual and gender base as accorded by the Shari'a Law, the hospitals provide separate wards for male and female furnish with nursing staff and porters of the respective sex;
 - Convalescent patients were provided in separate sections within these wards;
 - For infection control, patients with infectious diseases were place in isolation or in different wards;
 - Spacious wards, waiting rooms for visitors and patients were among the characteristics of these hospitals

- In meeting the Islamic obligation of the five times daily prayers of all Muslims, sick or healthy, plentiful clean water supplies with bathing facilities, for both patients and staff, whom necessitate taking a bath prior to prayer, were provided;
 - equipped with the best equipment of the time;
- provision of libraries with the latest books,
- auditoriums for lectures and meetings,
- housing for staff and students were among the facilities provided in the main hospitals;

- Pharmacology continuous research was also done in this facilities,
- Patients' records were kept in the hospital for the continuous medical care;
- Open 24 hours a day
- While hospital was free of charge and many doctors did not charge for their services.



Islamic Values In The Contemporary Healthcare Architecture

The VALUES among others are

- Timeless.
- According to Place;
- Climatic and environmental conditions;
- **Economics** conditions;
- Knowledge based (rational and revealed);
- Technology;
- Standards;
- Cross Cultural;
- And focus to produce the expected result i.e. providing the necessary well-being of a human being, physically, mentally and spiritually.

These values includes the importance of basic "material" STANDARDS such as :

- health regulations that requires cross ventilation and
- penetration of sun-rays,
- potable water,
- sewerage system,
- drainage system,
- accessibility,
- communication,
- technologies and
- other positive effort to facilitate humans as the applied values agreeable to Islam.

Dr.Ahmed Farid Mustapha, in his paper entitled "Islamic Values in Contemporary Urbanism", delivered at the First Australian International Islamic Conference in August 1986

Healthcare Architecture has always been an urban phenomenon of a different scale and influences thus affect healthcare architecture.

Thus the consideration of the Shari'a Law, climatic constraints, building materials, the social and economic situation as well as available technology, amongst other consideration, of an urban setting, pre or post industrial age in the Muslim world (as listed in Dr.Ahmad's paper) affects healthcare design.

Principles of the Shari'a Law include

- the sacredness of family life and the support of children;
- limiting the relationship of sexes outside the family circle;
- protecting, raising and educating children;
- public health;
- enjoyment of life and economy (to avoid squander).

In the light of urbanism, the Shari'a place strong emphasis

- on the need for privacy;
- building heights;
- building forms;
- external spaces;
- aesthetics;
- architecture;
- social interaction;
- and again the climatic constraints, local building materials, technology and so on.

The design should address the following concerns (not in any order):
(1) Public health in terms of provision for infection control, places and spaces for hygiene or personal wash, clean water supply, clean environment, natural light and good ventilation;

- (2) Privacy and self integrity or honour in terms of the provision of private spaces for male and female with visual and audio privacy;
- (3)Safety and security in physical and psychological sense by way of providing spaces for next of kin,home or familiar environment and halal food from the kitchen;

(4) Good orientation for physical structure (towards Qiblat) and planning layout; (5) Artwork that does not contravene the Shari'a such as absence of human or animal statues, nudity, expensive works and sacred

objects as well as special position.

 (6) Accessibility and conveniences for the users of the facility-patients, staff, visitors and other personnel;

(7)Space or services that provides continuity to everyday life such as school for children, library for some and conveniences of the busy office worker with IT connection to the outside world thus provide less stress for the patients;

(8) Gardens and courtyards as an extension of indoor spaces to outdoor spaces and yet safe and secured, to induce mental and physical healing; (9) Spiritual ease in terms of spaces or convenience to perform five (5) times daily prayers or meditations and reflections; and

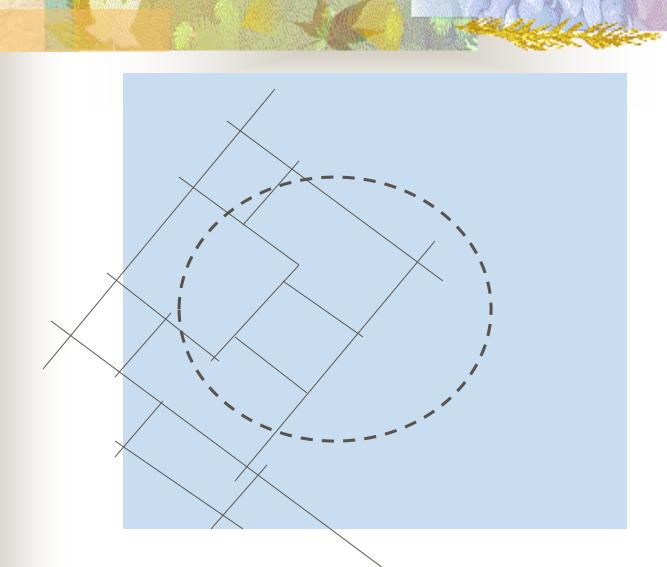
(10)Maintenance free as much as possible.

The architecture should address the requirements of :

- the environment within; and
- physically transform them as naturally as possible to tangible and workable spaces inter and intra dimensionally;
- reflect its the function
- practical,
- build-able efficient and
- available in terms of technology, material and the economic situation.
- designed for human being, respecting human scale and fill with humane spaces.

- Islam encourages progress through newly acquired knowledge for the humankind.
- Thus, new standards or approach in space requirements, new medical breakthrough with state of the art equipments and new medical procedures should continuously be evaluated for their appropriate usage.

- Exchanges of ideas that could bring better and enhance result to the well being of patients and other uses of the facility is therefore acceptable in Islam.
 - Plane-tree, patient focus, human centred or any other concepts that reflects care for the humanity in its holistic sense is acceptable to Islam and the healthcare architecture it represents.



Malaysian Experience of Healthcare Architecture Towards Islamisation In The Contemporary Age

Islam is a world religion.

Malaysia as a Muslim country from 1400 A.D onwards had already policies on the assimilation of Islamic values in its governance as stated in the Malacca Law prior to the Portuguese and Dutch invasion in 1511 A.D and 1641 A.D consecutively.

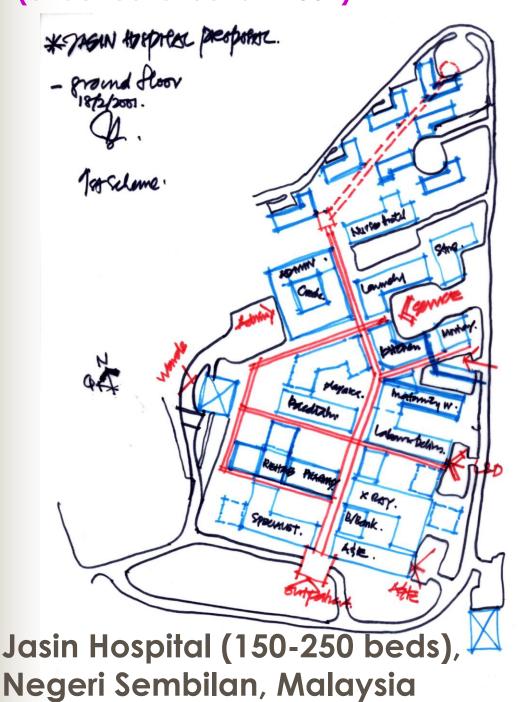
This was again enforced when Malaysia had her independence in 1957 from the British.

The 5 Year Malaysian National Development plans include development policies with the instruction to assimilate and integrate the Islamic values in the governance since the mid 80s.

Since then public facilities, had been planned, designed, built and occupied with these values incorporated at the various level and in stages. Malaysia tries, in the assimilation of Islamic values into the projects amongst which as listed and described below:

(1) In the site layout of any healthcare facilities buildings as best as possible to be laid in the orientation of the Qiblat i.e. towards Makkah. This is to make sure that the utilisation of space for prayer in whichever room is possible.

Site Layout (under construction-2002)



- (2)In the needs to focus towards patients as the main recipient of the services,
- the facilities were planned and designed with patients having to move less and services comes to patients instead. Thus the designed of the spaces such as the outpatient clinics being a one-stop centre.
- With the use of automation, samples are taken within the clinic and transported to the laboratory for testing without patients being told to move to the laboratory as before.

 Also with ICT, information reaches the desk of the physician on time to advise the patients the required treatment.

 Treatment where possible are also handled within the same convenient area or via telemedicine wherever possible.

- (3) Towards containing the family and as Asians are fond of bringing the whole family to any healthcare facility as visitors or as an outpatient, facilities like
- the play area for the accompanying children,
- the large waiting area,
- the cafeteria,
- facilities for nappy change accessible for both male and female, and breastfeeding rooms were provided.

- The consultation/examination rooms are designed to accommodate as least accompanying relative or the children.
- In the paediatric ward, mothers are allowed to be with their children.
- Mothers' facilities are also provided in the special care nursery to allow continuity in the breastfeeding as well mother-care as part of the therapy to ill babies.

- For the critically ill patient, relatives waiting area are also provided adjacent to the ICU, the operating department besides the main visitors hall. Telemedicine, although still in its infancy age, are also encouraged to provide this service to the people at remote areas. Patients on convalescent are referred to the nearest hospital or clinic for continued administration near to home.
- Home delivery of babies are still preferred except for critically ill patients.

- (4) The need to address to the disable besides the patients that include the frail, the elderly, the blind and the hearing impaired, accessibility in the forms of
- provision of parking areas for these people besides ramps, lifts,
- special toilets and other were also introduced.
- The locations of the required adjacent departments are firstly for the patients then the staff circulation in themselves.
 Information and goods flow can be implemented via automation and ICT system.

(5)The segregation of male and female patients and other users of the facility can be seen

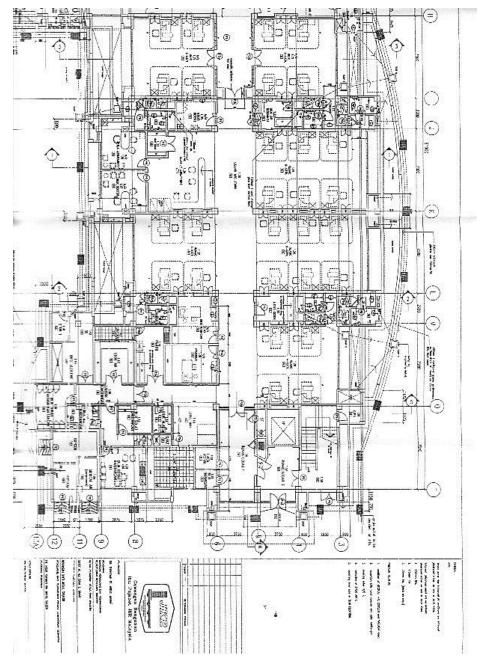
- in the provision of separate wards for male and female in all the discipline,
- separate toilets,
- separate change rooms,
- individual compartments or rooms for multi space areas in the use of curtains.

(these facilities are design with flexibility should the number of the gender differ either way)

(6)For privacy and integrity of patients,

- areas for examination procedure are provided with curtains within the room;
- patients are never examined without the presence of the 3rd person i.e. the nurse or attendant of the same sex to ensure safety of the patients;
- where possible separate routes are planned and designed for patients on wheels i.e. beds or trolleys to avoid using the main hospital street;

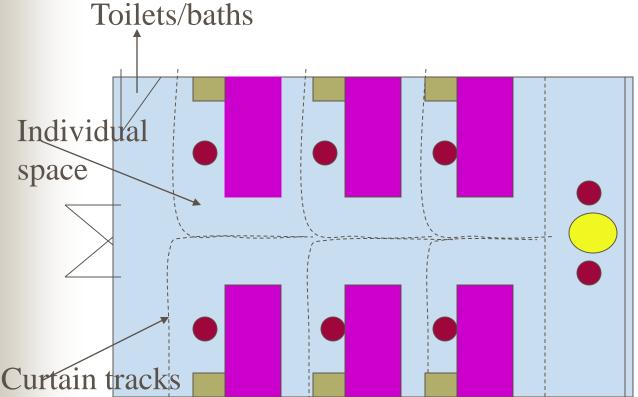
Part of the new Malaysian Standard 4 storey ward block



Courtesy from the Ministry of Health Malaysia

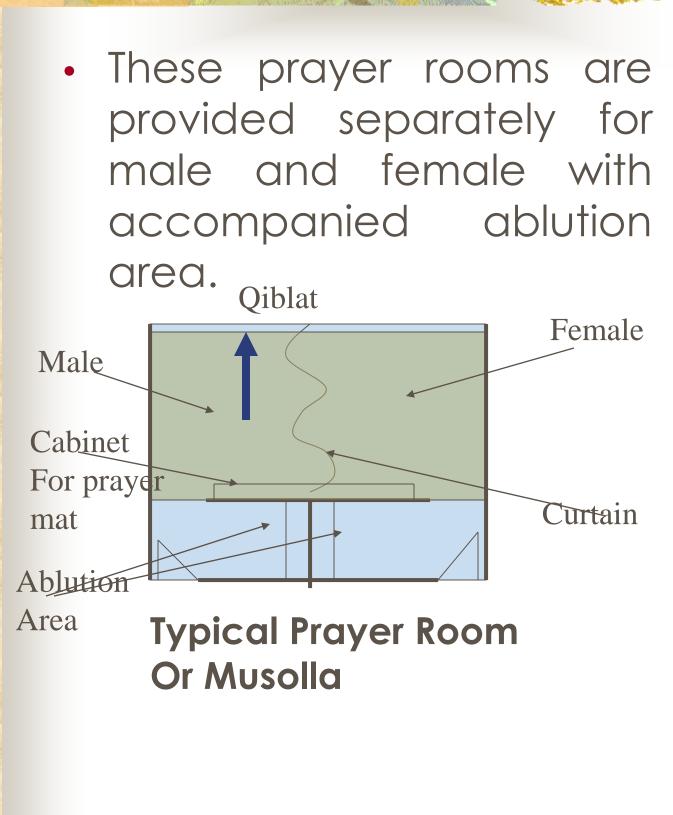
 each bed space in the multi-bed area are confined to maximum 6 beds with each patients enjoying their own personal space with cabinets and visitor's chairs.

Multi-bed ward space



- In the labour room, patients are provided with
- single labour delivery rooms for privacy.
- Husband or next of kin are allowed to be with patient to facilitate labour other than to provide bondage between spouses.

- (7)To compliment the obligatory five times daily prayers for Muslims patients, staff and also visitors,
- prayer rooms are provided at all the wards, and all departments that require changing such as the operating theatre departments, the CSSD, the ICU, the Special Care Nursery and others.
- For mass prayers the larger prayer rooms or Suraus or *Musolla* are provided accessible to all off the hospital street shared by all.



(8)In the labour rooms, the reception of the Muslim babies although handled by all doctors Muslim or Non Muslim, male or female obstetrician, a Muslim doctor or nurse or the spouse will recite a prayer to the ears of the child as required by Islam. The after birth or placenta for Muslim patients are given back to the family for proper burial. Prior to birth, mothers to be are encouraged to recite the Qur'an to provide familiar soothing sounds to the babies within.

(9)In death, if it happens in the Emergency department or dead on arrival, a holding area for the dead with relatives waiting area is also provided. In Islam it is important that a Muslim body be kept with accompanied recitation of the Qur'an and prayers until he or she is properly buried.

In the design of the mortuary, the Muslim bodies are provided with

- separate refrigeration units to hold them temporarily. In Islam a body must be buried as soon as possible to avoid the dead from suffering spiritually. Thus relatives of the patients will collect post haste for burial.
 - Prior to that the ritual of bathing and prayer of the body is ether done within the mortuary or at the graveyard. Thus there are provision within the mortuary, place for bathing and special prayer for the dead separate from the non-Muslims.

(10)In the **provision of food**, only one kitchen was provided. In line with government policy that all public kitchen as Halal kitchen, the former Halal and non-Halal kitchen were change to just Halal kitchen for all. This not only attain to hospitals or healthcare but also in public schools and government agencies.

(11) In Malaysia, the government **provide and run** these facilities.

- Only about less than 10% of the actual costs of the drugs are chargeable to the patients. For general outpatient treatment only RM1.00 (about US 0.38 cent) was charged; for specialist outpatient about RM 5.00.
- For those who cannot pay, they are to be referred to the social worker for the necessary endorsement of their status for which they will be exempted from payment at all.

 However for expensive treatment such heart operation or cancer, sponsors will need to be notified through the media. (12) Government servants are given special treatment for which through the "caring society policy", besides spouses and children of the employee, the parents can also benefit from the scheme.
(13)In the government privatisation of healthcare services only the

privatisation of healthcare services, only the maintenance, laundry and housekeeping services had been privatised. Critical or patient-care services are still run by the government. (14) On medical education, aside from teaching hospitals attached to universities, most large and medium public hospitals also provide postgraduate training for the medical staff to specialist level as well as training for the para medical staff and nurses. In some instances, private medical schools local or foreign, have signed memorandum of understanding (MOU) with the specific hospitals to utilised them as part of their clinical training.

The Reality

- Architects designing these facilities are not totally aware of the realisation of the Islamic requirements in these projects.
- Most Islamic values is translated into places of spiritual performance only and not visualised them as the hidden values which they can be conceive through proper planning and design for the daily living.

Although Islam encourages the provision of landscape elements such as gardens that is safe and secured, due to costs of the projects, these are the first to be cut from the budget with the hope that it will be done perhaps at a later date.

They are not many well to do personalities that are willing to part with their wealth for the sake of healthcare for free as they were done in the past.

In Summary

- This Study on Islamic Perspective to Healthcare Architecture is only an overview, an introductory insight to the subject and thus does not reflect a comprehensive whole as yet.
- However, in its limitation, the study had uncovered that healthcare architecture in the Islamic aspects goes beyond the physical realm of providing the physical facilities to only the physical sick.

- The architectural form, though flexible in its approach, should not reflect nor give connotation that it support iconography forbidden in Islam e.g. to avoid crosses in plans, openings or decorations.
- The provision of buildings that could support societies whom could live, produce, worship, entertain, happy, efficient, economic and less suffering, so as to produce societies that be an assent to humanity, contributing to its development, its civilisation and future generations

- The architecture should accommodate in its functionality, features that could enhance remembrance of God (Allah) without detrimental to the required clinical procedures of infection control and good medical practices accepted worldwide.
- Change is inevitable in the healthcare provision but that change should be improvise towards a humane environment as required by all and not machine or technology driven.

The planning principles in the process of design should take note that the proposed scheme should be able to meet the function of its users and their way of life including requirements of the medical/clinical procedures. It should be innovative and creative in finding ways or solution to avoid unwanted function deemed to happen and should not condone function that is contradictory to Islam.

Architects working today can take advantage of opportunities that new materials and mass production techniques offer.

They have opportunities to explore and transform the possibilities of the machine age for the enrichment of architecture in the same way that craftsman explored the nature of geometrical and arabesque patterns towards submission to God.

 Ref:The future of Islamic Architecturehttp://islamicart.com/pages/archtcre/fiture.html

As part of the Urban fabric, the architecture should consider the Islamic requirements such as privacy, climatic advantages, and positive spaces.

- Whatever the design, it should reflect the human development i.e. designed for the human being, respecting human scale and pedestrian orientated.
- It condones universal value and should be approachable by all.

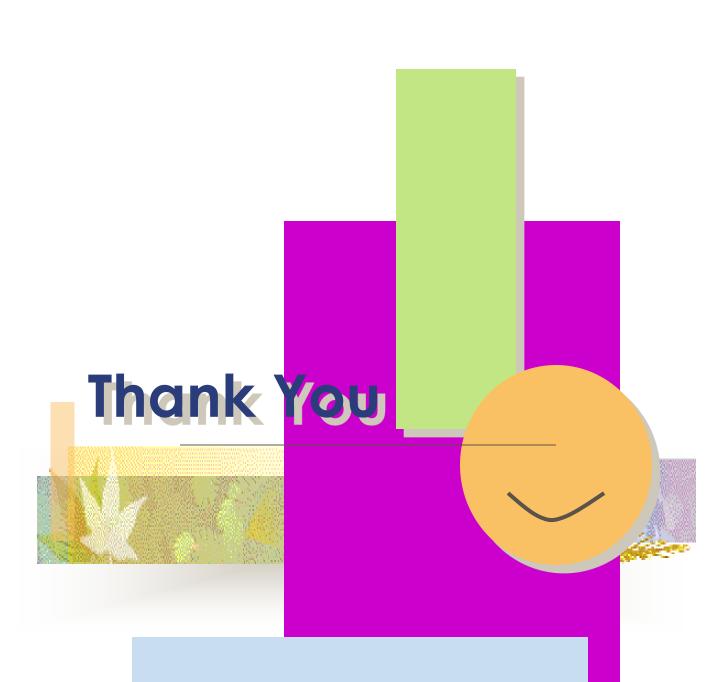
Ref:Ahmed Farid Moustapha, August 1986, **"Islamic Values in Contemporary Urbanism"**, Paper presented at the First Australian International Islamic Conference.

- Rising costs in the provision of healthcare is still the concern in all countries, developed or developing, that takes away the actual focus of healthcare towards the wellbeing of the patients.
- Perhaps research can be done with the focus on how to attain or contain these costs efficiently without depriving the needy the required treatment as well as to sustain the provider the required funds to operate optimumly.

in the Sincerity implementation of these projects with the hope of getting blessings from the almighty (Allah) here and hereafter and not just for material gains solely should be the aim by architects and their respective clients.

Islam is not against profit or business, but excessive gains and through unduly means is haram to Islam.

Wallah huallam (Only Allah Knows) !



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