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Islamic influence in architectural and urban design (For a sustainable Islamic architecture integrated into the Present uses)

## • الملخص:

ترمي هذه الورقة البحثية إلى تسليط الأضواء على بعض الجوانب البارزة للمورث العمراني الإسلامي وخصوصياته المعمارية.

كما تحاول كشف الإسس الاجتماعية التاريخية والدينية (أو الروحية) لهذا الأخير. وذلك من أحل البرهنة على أن التخطيظ العمراني للمدينة الإسلامية لم يأتي عشوائيا، بل وفق تصورات، ومفاهيم منحدرة من الشريعة الإسلامية، وتقنيات، ومواد، وتصاميم مضبوظة نظريا ومندمجة اجتماعيا.

- الكلمات المفتاح:

الإسلام، عمران، موروث، تصميم، ممارسة.

#### Abstract:

This paper develops some emerging aspects of the architectural and urban Islamic heritage. It attempts to bring a synthetic highlighting on the socio-historic and religious foundations of this latter.

Our purpose is to manage to show that architecture and Islamic town planning are not the result of a spontaneous practice, but of series of products theoretically reflected, technically controlled and socially integrated.

In the end, this has allowed us to plead in favor of a critical revisit for a still functional and viable architecture.

Sensitizing and popularization of architecture and Islamic design by massmedia, school and university are requirements of its rehabilitation.

### Key words:

Islam, Architecture, Inheritance, Design, Practice.

#### • Résumé:

Cet article développe quelques aspects saillants de l'heritage architectural et urbain islamique. Il tend à donner un éclairage synthétique sur les fondements sociohistoriques et religieux de ce dernier.

Notre but est, également, de montrer que l'aménagement urbain et la conception architecturale ne résultent pas de pratiques spontanées mais d'une série de concepts, de matériaux et matières théoriquement réfléchis, techniquement controllés et socialement intégrés.

Ce qui nous permet, en fin d'analyse, de plaider en faveur d'un second regard critique sur une architecture traditionnelle encore viable et fonctionnelle.

La sensibilisation et la vulgarisation de la conception architecturale et urbaine islamique par les mass-media, l'école et l'université constituent des préalables incontournales à sa réhabilitation.

#### Mots clés:

Islam, Architecture, Heritage, Conception, Pratique.

## INTRODUCTION (PROBLEMATIC)

Islamic civilization, posterior to old and ancient civilizations, left a considerable legacy, as well on the plan of the scientific, technical and artistic productions as on that of the material manufacture.

Its heritage, in its material and immaterial (tangible/intangible) dimensions, was not born from a spontaneous generation, but it is the fruit jealously maintained of an accumulation and a combination of ideas, knowledge and practices.

Among this legacy, the architectural and urban production occupies a choice place, because it expresses in a palpable way of the durable built objects which incorporate materials, technology and techniques of construction, but also, because it conveys, by the produced geometrical forms, the drawings and decorations, a unified thought of varied and crossed cultures.

The Islamic civilization which occurred in the physical, social and cultural Arab space, was strongly inspired of the latter and thus became the example and its reference, but and without constituing a barrier with the local cultures.

Thus, beyond diversity due to specificities of the local cultures, and which generated as many variables in the architectural product, Islam, carrying a new social project, a role of catalyst in the unification of the social thought in the Islamic countries played, particularly in the Arab world where Islam occurred and was propagated by carting a lifestyle based on simplicity, modesty and decency (Ibn Qotaiba).

From the Maghreb to Asia and Spain to deep Africa, this architecture with the facets and the multiple geographical horizons is characterized by a rich and varied architecture, as well in the field of the form as to that of the contents and the architectural details.

From the 19th century, in consequence of the facts and historical events (colonization, wars, recombining of the official borders and

political changes), and in front of the technological advance of the occident, the Islamic world was found in an unfavourable position in the new power struggles which are, consequently, drawn up.

This sociocultural and historical production, of which a part is still viable and functional, is on the way to become an image of the past, a curiosity of museum, a referential value and in the end is going to be considered as symbolic.

In addition, the Universalization of the systems of production, Exchange and multiform Communications and the Globalisation on the economic, social and cultural levels, and the policies which they under tighten, let plane fears, especially that the development of the various nations of the world continues to be characterized by an inequality of the chances and better means of existence, creating a gap, increasingly deep, between rich and poor.

The logic and the rhythm imposed by the strongest nations on the materially stripped nations seem right now to threaten fragile balances of the nations called under developed or developing.

Among felt fears, there is the risk of loss of the local and regional cultural identity to the detriment of a model of Thought, Production and standardized Westerner Consumption.

The resistance to denaturing change of the developing societies will be function of the level of self-awareness, of the capacity to dig in the terroir and to renovate or recycle, which cannot be self-integrated in the process of the global evolution of the Human society.

This is why, we are challenged to revisit in a critical manner our "muséified" and "living" inheritance which is still functional to put the junction between the past and the present and try to perpetuate it in the future, like an "exchange value", uncreasingly renewed and revalorized, inserted into the daily life and adapted on the fluctuations of the social thought.

Thus, a didactic parallel is put between genetic inheritance and the architectural and urban heritage. The genetic inheritance inherited

from the Past (parents) determines, on the whole, the Present (the offspring) and makes it possible to produce the new for the Future, by the mixture of the genes.

"To be continued, Life thus needs a still alive past, in the sense that it goes on to produce its effects" (Guerroudj T., 2000).

Thus, the architectural and urban heritage Islamic should not be conceived like an isolated object, but like a matrix anchored to the Past and the collective memory of a people, a nation and a means to reach dubious banks of the Future. In addition, excesses to want to make of any object of past element a referential frame are, also, to avoid because, they will contribute, in the time, to confuse between the Original and the Copy.

This question which is the subject of specialized researchers, not only in the traditional fields of the history and archeology, but also of architecture to extirpate the intrinsic value of the studied object and the socio anthropology, to decipher the other values and significances which are contained, is another manner of maintaining the roots to protect the tree.

In this spirit, we will briefly approach, in this paper, some features of the urban facts in the arabo-islamic society, the interpretation of the ethical values, morals and religious structures and, finally, some elements of jurisprudence and legislation relating to architecture and urban construction.

# 1. The urban fact in the Arab society:

The Arabic and Islamic socio urban thought after the advent of Islam found itself under a double process of Continuity and Rupture.

• Continuity developed in the fields which did not enters in contradiction with the precepts of Islam. El Faraby and Ibn Sina, for example, continued the reflection on the Ideal City of Plato and made the comparative analysis between the thought of this and that of

Aristotle's, while leading on the proposals of the "Virtuous City" and the "City of Justice" like models adapted to the islamic society.

All fields of knowledge of that epoch, in contact with growing Islamized space, were systematically adapted by the enthusiastic scientists and Moslem thinkers, anxious to learn and understand their environment by applying the precepts of Islam which encouraged with knowledge and the investigation scientists "أطلبو اللعام من المهد إلى اللحد" (Muhammad, BPUH).

During that Golden age of great progress for Humanity, various scientific disciplines were accomplished.

 Rupture, as for it, was posted in a categorical way in the lifestyle, the behavior and the control of the Moslem society.

A clear coding of prohibited and creditable acts and required in social morals gave birth and form a new social space configuration which appeared in manners (vestimentary effects, commercial transactions, foods and drinks, weddings, etc...) and in the architectural and urban achievements.

It is within this dualistic framework that the re-creation of the city and built spaces, under the arabo islamic dynasties, was done on the territories conquered with Islam.

In this spirit, the urban fact in the arabo islamic society fits, also, in a double logic of rupture and continuity compared to what was previously produced at the Islamic era.

There is on the one hand, the old cities, former to the advent of Islam, and on the other hand, the new cities or "Médinas" founded within the framework of the territorial expansion rising from the conquest and the new needs imposed by the need for administration for the new territories and the profession of faith.

So, in the first type of cities, we notice the addition of the Mosques, Medersas, Palais and Dependences with a more or less functional pre-existent town planning, in the second type of cities, which one names from now on "Medinas", it is a new Islamic town

planning, closely related to the immediate needs of Hadara (in the Khaldounian approach) which surdetermines the structure of urban and architectural spaces.

Yathrib would be the first model of the Islamic city as far as Prophet Muhammad (bpuh), while residing at Medina (Prophet city) ", to some extent, modelled spaces and places, which became the space expression of this civilization... and where the Chari'aâ defines with precision the social life from which the dwelling rises..." (Pelletier J. and Delfante CH., p 120). Spaces, places and dwellings of Medina became in time, a model of inspiration for the foundation of other cities.

## 2. Some guiding principles of Islamic architecture.

Islam is a religion of observances which regulates, at the same time, the private life and the Communitary one. It covers Five vital domains: the dogmatic definition of the beliefs, suitabilities and uses, ethical principles, worship practices and social rules.

From there, there is a precise coding of the Obligations, of what it is allowed, of what it is not, and of the major Interdicts.

Obligations "Fard - الفرض goes from the practices related to the rules of ritual purity to the establishment and maintaining of Justice, Solidarity, equality, love of next and Peace.

The Interdicts and the permissions go from the principles and the manifestations of the belief to the social and commercial relations, homely life, sexual morality, decency, food, drinks, magic and sorcery, until the relations of respect and benevolence with the not-Moslems (أهل الذمة). The greatest sin being concomitant practice of polytheism (Chirk - الشرك - الشرك ).

Through what is allowed toletated and forbidden, Islam filters what must be socially accepted, both in the individual and collective behaviour as well as the material realization.

From this, the architectural conception of dwelling, equipments and even urban space will take as referential the canonized (religious) foundations of Islam.

Among the main principles wish make up the prism from which the urban and architectural realizations will be expressed, we introduce the following concepts:

# 2.1. Phasing out (Dematerialization) and Abstraction: at first, islam erases the image

The destruction of statues and idols by Ibrahim (bpuh), at first, and Muhammad (bpuh) later, constituted a breaking with beliefs of the past, including the monotheistic religions.

Also, among the principal reiterated recommendations, later, by the religious scientist and scholar "Ibn Tumert" addressing the Almohades is as follows:

"Occupy yourself to learn Tawhid (التوحيد), because it is the base of your religion, in order to push back far from the Creator any comparison or any association, any idea of imperfection, reduction, limit, direction; because the Almighty exists before the places and the directions! That which locates him in a place or a direction, gives him a body form and that which makes a creature of him is like the admirer of an idol. And that who dies with these beliefs will remain eternally in hell" (Ibn Tumert/ trad.Levy-Provençal, 1928, pp: 7-8)

Phasing Out (Dematerialization) and abstraction are two inseparable concepts of the same reality.

The creator raises his creatures at a level of sensory and extrasensory perceptions.

It's by senses and logic that the man must learn again to understand the essence of and his indefectible links with Allah.

It is no longer the time nor the temporal phase of the great demonstrations of the divine power by the production of the great miracles, as it was the case during the time of Moses where the Red Sea opened by the divine will, letting pass only Moses and his People and absorbed the Pharaoh and his unbeatable army and where Jesus Christ recovered the sight to the blind and ressuscitated the dead, in addition to many other manifestations of the divine power, quoted in the holy books.

# 2.2. THE SYMBOL REPLACES IMAGE OR SUPREMACY OF THE SPIRIT OVER THE MATER.

Image is a fixation of a given moment full of movement. It expresses a focused framework in order to concentrate or even to adore the matter frzen and fixed being.

But Islam invites to a complentative thought that displaces in the infinite space of the divine creation where Allah is omnipresent, but not shown as Ibn Toumert has mentioned in a place or direction.

That is why Islam advocates and expresses through symbolsor signs carrying of significance the supremacy of of mind over matter.

Freed from the cuffs of the iconographic representation representation, the art of Islam will blossom thanks to Ornament of abstracts forms instead of gaining the spirit and to train it in an imaginary world. It dissolve mental fixation and loose the awareness or consciousness of interior idols (Burckhardt T., 1985).

### 2.3. ART AND MATERIAL REALIZATION

The expression of "Hadara"-i.e. urban civilization - (A.Ibn Khaldun), art will find all the greatness of Allah, latitude of expression outside the field of physical image and diverse figurines.

Geometrical forms, arabesques, flowers, vegetal and representations of dead nature will offer unlimited possibilities of expressions and will make the beauty, the balance and the harmony with a different view.

Architectural composition, calligraphic and decorative arts will know a new impulse with Islam and contact with rich and varied local cultures.

Architecture and urban space will be made according to the precepts of Islam. The new architectural edifications and cities foundations will be done according to the spiritual and material needs of Islamic society.

The juridical-political and ideological superstructure will guide Muslims to determine the infrastructure or material basis of society. We build some way because we think that we live in that way. That is to say, that is a perfect symbiosis between social environment and built environment (or space).

# 2.4. MODESTY, SEXUAL MORALITY AND ARCHITECTURAL CONCEPTION.

Islam advocates the respect of human beings in the level of their mind and their body. It protects the privacy of the individual, prohibits sexual attack, and prohibits the suicide, body mortification, tattooing and other bad acts.

Conjugal life can be conceived by rules of marriage. also mixity between the two sexes is prohibited. That is why Muslims are obliged to put children in separated beds. Subsequently, we could divide the physical space (in a house) into two types: masculine and feminine space.

The Ottomans call the two spaces: The "Haram-Lek" i.e. the feminine space which is for "Harim" women can move easily without being seen by men.

In the other side, the "Salem-Lek" is for men. It is the living or sitting room where they receive neighbors, friends and guests – i.e. those who are not "Maharim". This room is situated on the ground floor, far away from the open space of the house (Haouch, wast eddar) which classifies and controles the domestic space from indiscreet person and public eyes (Bahnassi A, 2003).

The Arab house, turning the back outside and opening inside on the patio "Wast Eddar" which regulates and treats on a hierarchical basis domestic spaces, veils from inquisitive eyes, like the image of the veil worn by the Moslem woman.

The system of enclosure built up in norms as well at the architectural level as with that of town planning, will have thus as a finality to preserve the intimacy and to encourage meditation, in an existence turned towards the interior (introvert). This spirit of the Arab, at the same time, enthusiastic of freedom and jealous of his intimacy, will be found bathing in a new environment where the coding of the acts and attitudes is dictated by the religious precepts to which he fully adhered.

The Patio by frequently gathering the members of the same family in its center, in the absence of the foreigners, makes it possible to reinforce the family tie. The opening of the patio towards the sky, in addition to lighting and the ventilation which it distributes, is an invitation to meditation.

# 2.5. UNIT AND UNICITY IN ISLAM: HEIGHT, VOLUMETRY AND ASPECT OF CONSTRUCTIONS

The precepts of Islam contained in the Coran, Hadith, Chariaâ and the customs preach modesty and humility, as they urge the Moslems to be interdependent and plain. The construction of a dwelling in urban environment must thus yield to the technical, moral and social requirements. And should not be of any harm to the neighborhood (مبدأ لاضرر ولاضرار).

This will induce the builder to be aligned on his vicinity as well in volumetry (آبخنب التطاول في البناء) for, at the same time, preventing, masking, the sun and the light, as in that of the general aspect of the joint frontages to avoid competition with the magnificence and the visual segregation, external signs of richness and poverty.

Interior of the dwellings perhaps however decorated according to the means and tastes of the owners, but in the limits and the compliance with social and moral rules in actuality.

# 3. Some elements of jurisprudence and legislation relating to architecture and urban construction

We will present here, on a purely didactic basis, the works of two Moslem thinkers: El Mawerdi and Ibn Rami on the questions of legislation and jurisprudence relating to Islamic architecture and town planning.

In his work entitled "The Governmental Statutes - الأحكام السلطانية", El MAWERDI enacts the rules of use of the grounds and the resources of the various rural and urban areas and the rules of urban and architectural construction, in connection with the religious customs and bases.

EL-MAWERDI, who enacts the laws of use of the grounds, as a Sheik (Professor) and an Imam (Man of Faith), is based at the same time on the uses in progress, in his time, but in connection with the religious precepts, in particular the Book Crowned (Coran) and Sunna (Words and Facts of the Prophet, bpuh) like on Kî' yyas (Comparison of the facts and situations) and Ijtihad (Jurisprudence). This in order to allow on the one hand, a tacit acceptance, by all, of the enacted rules and harmony between the Law, the Faith and the Human activities, on the other hand.

"At the time of Omar, the Companions founded Al Basra, which they divided into districts intended for the members of their respective tribes, and they gave to the principal artery a width of sixty (60) accross the central town square(Mirbad), and the ordinary streets with a width of twenty (20) bent, and lanes with a seven width (07) bent. In the middle of each district they installed a roomy place intended to be used as a stable for mountings and to receive the burials, and they placed in dwellings which were touched. They did not act thus without being agreed put after examination or without an indisputable text. Bachir Ben Kaâb reports, according to Abou Horeyra, that the Prophet, bpuh, said: "When people are in disagreement in connection with a way, do it of seven (07) bent". (El Mawerdi/trad Fagnan E.1984, p386).

From this text, we will try to highlight the following key ideas:

Firstly: Al Basra city (Iraq) did not develop in a spontaneous way with the liking of fixings of populations, but on the basis of a considered plan and a clearly definite vision of the occupation of the grounds.

Secondly: the Roadway system is treated on a hierarchical basis: the main road has a width of sixty (60) bent, i.e., 30 meters, which is a true avenue, which does not envy anything in dimension the large urban arteries of our time. The secondary streets had a width of twenty (20) bent, that is to say an influence of 10 meters. As for the lanes, they are fixed at a minimal of seven threshold (07) bent, that is to say

an influence of 3,5 meters, in accordance with Hadith of the Prophet Muhammad bpuh, which says: "When people are in disagreement in connection with a way, do it of seven (07) bent".

Thirdly: the city is divided into districts with regular dimensions in the center of which a vast place with the multiple functions is arranged (destined mainly to be used as a stable for mountings and to receive the burials, inter alia uses).

Fourthly: constructions are coupled; they are not scattered dwellings as it is the case in rural area, but according to a principle of joint ownership and adjacency accepted after agreement or on the basis of legal text (Nawazils and Fetwas) existing.

Fifthly: the space distribution is, above all, a social distribution because each district is occupied by a tribe. The purpose is to harmonize the reports/ratios of vicinity, to maintain the social cohesion and at the same time the intimacy of the close relations (Maharim = مار علم ), and to make it possible to reduce the conflicts and/or to regulate them inside the families.

In addition, the occupation of spaces is not fortuitous because it is a response to strict regulations, as it is stipulated by the texts in legal matter, of which we present two extracts, as example:

- a "an impasse installed between close owners becomes a common property, and no one has there a privative right" (El Mawerdi/trad. Fagnan E, p: 388).
- b Imam Malek Ibn Anas, which is an irrefutable reference, and whose a current is asserted and which bears his name 'Malekism', raises ambiguities and the differences between an advisable Practice of use (to the tolerance level) and a Law resting on the Law. He slices on the question as follows: "When an individual is known like occupant a site and that the fact is notorious, his right is higher than that of another individual, which results in to cross short to any

discussion and to extinguish the competition. Such is the decision to be taken, although it seems to harm the general interest in [favouring an individual] transforming into a property right what is only a tolerance" (El Mawerdi/trad.Fagnan E.,p: 404).

One of the works of the Arab Thinker Ibn er-Rami (copy of the manuscript deposited at the Central Library of the University of Rabat, Morocco), is rich in information on the rules and processes of construction.

This work entitled: Stated Rules of Construction ( الإعلان بأحكام), was authentified by the researcher Abderrahmane Ibn Salah El Atram (1423 H)

This academic study undertaken within the framework of Magister presented to the faculty of Charî' â University Imam Muhammad Ben Saôud, had the characteristic to update and classify the main questions treated in this work by Ibn Er-Rami at his time, on the processes of construction, while exposing, in particular, the rights of use of the grounds, in the respect of the joint ownership, the vicinity, the religious and moral precepts, and, on the basis of the rules of town planning into usage at that time, and the cases in which Malekit's had stated of the "Fetwas" as rules to follow.

These rules were laid down in various forms, (Fetwas, Ordonnances, Decrets touching as well the equipment and public spaces, such as the Mosques (Position, Orientation, Dépendances, space of Prayer, Teaching, Residence, the space particularly harming of the water rooms for Ablutions, etc...), Palaces, springs, bridges and arranged passages (by taking account of the harmful effects that they can generate), and the residential buildings (directly seen, opposite, height of constructions, sunning, etc...).

These measures which eliminate the unwise and random acts as regards construction in particular, and of town planning in general, aimed to avoid the development of interindividual and collective conflicts, and to maintain a balance harmonious between physical

space (the material aspect) and the society which lived there (the spiritual aspect). As they made it possible to manage in a suitable way "the land wallet and the vast spaces" acquired as a result of the conquest of Islam.

This brief presentation enables us to say that Islamic architecture and town planning are not the product of spontaneousness, but considered on the basis of clear sociocultural matrix.

For this reason, Denis GRANDET (1988) says to us that: "the arabo islamic society is built during the centuries, at the same time, like institutions of social spaces and like construction of urban spaces in an indissociable way".

### Conclusion

It is important to look further into the reflection on the architectural and urban Islamic Heritage, for a better comprehension of its genesis, its functioning and consequently of its a better management, like its identity value and referential frame for our collective memory and for our future projections as regards installation, of town planning, or failing this, of meaning architecture adapted to our culture, our environment, our means and with our lifestyle.

If a living language is not currently spoken and practised, it is doomed to die. The same thing will happen to architecture when not renewed, actualised and practised all along the life.

Without forcing the criterion of patrimonialisation of any object of the past, Islamic architecture must admit diversity, keep unicity and méthodologically divides the structural aspects of the functional aspects (integration of the architectural and urban standards current and climatic comfort and other needs).

The prices of Aga Khan, King Fahd and the Organization of the Arab Cities in islamic architecture et design, made it possible to discover the talent of many architects who could succeed to exceed the difficult transition from traditional to the modern one. Thus, it is advisable to analyze the elements which contributed to the success of this class of architects in their projects of renewal.

School, University and the training centers must sensitize the rising generation with the Islamic legacy.

Jean JAURES said rightly: the tradition does not mean to preserve ashes, but to keep the always lit flame.

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