The Impact of the Religious Thought and Beliefs on the Sustainability of Urban Process and Production

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ABSTRACT

The relationship between belief and the architectural and urban production of cities made up an important topic in various studies that dealt with the impact of religion on shaping the city. Considering that belief and transactions usually determine the activities practiced by the social system in the city. Where the performance of the social system is reflected in urban production and the relationship between the elements of the city. This study is a comparative study designed to determine the nature of the influence of religion and belief on the processes and sustainability of building products in different cultures (Iraqi, Egyptian, Greek, Roman, and Eastern civilizations). Where the problem was addressed according to a descriptive and analytical approach, that reveals the features of sustainability in the architecture process and product of ancient civilizations influenced by religious thought and beliefs. The method used to achieve the goal of this research begins by defining the sustainability characteristics of architecture, urban products and intellectual indicators as criteria for comparison, and then presenting the results and conclusions that have been reached.

1. INTRODUCTION

Civilization represents the framework in which people coexist, as it is perceived as a human phenomenon that exemplifies a complex and integrated system characterized by historical continuity through the transmission of its value paradigms across generations based on fundamental principles representing the spiritual and intellectual content of the civilization (religious doctrine, innate tendencies, beliefs ...). The research deals with the influence of spiritual aspects of human perceived concepts about the universe, existence and the reflection of the divine will through human will at all levels of the city. It also discusses the impact of religions, beliefs forces, and determinants in regulating the behavior of individuals, and then explores how the community symbolizes the spiritual content in the city's urban products which would help it assert itself as a driving force throughout history. Hence, an attempt will be made to investigate the religious and beliefs impact or significance of urban products in different human civilizations. The research problem is represented by the need for a comprehensive cognitive framework for the role of religious thought and beliefs in the sustainability of architectural process and production). It aims to build a comprehensive theoretical framework for the concept of religion and beliefs thought and its role in the sustainability of and production of cities. The following method is used to realize the aims of the research: Building a theoretical framework for the concept of religious thought and defining the indicators of cities sustainability performance in terms of spiritual significance, beside the application of indicators to various ancient civilizations.

1.1 Human action and product: The implicit system and the apparent system

The complexity of the human phenomenon was evident in the different viewpoints of thinkers of what is human nature and its ambiguity from the surrounding creatures. Perhaps the secret of man lies in this swinging nature between the contradictions in himself and the surrounding universe.

1.1.1 The implicit system (spiritual)

It is the constant aspect of human knowledge that does not change, where the boundaries of time and space cease to exist, as it deals with the origins of human composition which is represented by the building blocks of existence that Almighty Allah gifts to humans in the form of images placed in our subconscious or the world of nothingness (whole from parts) [1]. It is also characterized by its continuity and ability to pass through generations in the form of Archetypes that make an impression in human minds and are embodied through the process and products of man. Innateness to Muslims is represented by the acknowledgment of existence in the spiritual world which is realized by the heart. Schulz refers to it in his attempts to define archetypes by stating that they can be identified through the act of living by the general principles of embodiment and spatial organization [2].

1.1.2 The apparent system (physical)

It is the variable aspect of knowledge acquired by man through his senses and it represents the inter-systems (part), and is characterized by its relativeness and attachment to time within the bounds of a relation that connects sense with experience [3].

Religious thought as the peak of human consciousness works to preserve human action in harmony with the divine will. Religion is a way of life that affects all levels of society through the following concepts [4]:

(1) Doctrine: it represents the relationship between man and his Creator, a spiritual relationship that is realized through the signs of God's power in the universe and its existence as the universe and man reflect the principles of the Creator.

(2) Sharia: it represents the foundations and rules governing the relationship of one man to another as it is a relationship between two identical parts in the spiritual and materialistic realm.

(3) Ethics: it represents the nature of relations that gives the impression of commitment and consistency on social behavior.

There are two sides to everything, including phenomena: the apparent and the ulterior. The former can be tangible, being realized by the senses, and the latter is realized through the guidance of senses. However, the realization of its essence and significance can only be realized through a perceptual approach. The unity of self-existence of man (materialistic - spiritual) is not achieved through the experiences that are bound by the limits of his senses but through the openness to existence to be realized through mind and soul. Thus, this deepens his consciousness and releasing the underlying intellectual and spiritual energies leading to a higher level in the hierarchy of humanity [5]. Even though religious concepts possess deep and underlying dimensions that cannot be realized, they contain the provisions of everything in the universe. It is only possible to reach the deep sub consciousness through intellect and action as the thought identifies the metaphysical (subconscious), while action embodies the practices that regulate human behaviors linked with the subconscious through religious practices and worship, aiming to liberate man from the physical realm and turn him to the spiritual one [6].

1.2 Concepts: Process- product- sustainability

The influence of religion and beliefs as the intellectual content upon which the urban process is based does not appear in the product only, but its impact is evident from the start of the urban performance process. Investigating the impact of religion, therefore, requires an understanding of its role in both the process of urban process and its outcome.

1.2.1 Architectural urban process

The process of urban performance is based on the concept of coherence of life processes that are influenced by specific rules of the human subconscious, acting as a hidden order behind what gives the impression of chaos and randomness represented by individuals' actions [7] (Figure 1). The value of the urban process does not appear during the event, but appears at a later stage (output) when it results in a developmental change in the recipient's sense, as its value lies in the overall combined effects of the conceptual structures on which the process is based and its clarity for the recipient. Implementation can only be achieved through an integral relationship between the mental actions that occur during the performance process with the mental actions in the process of receiving [8].

This is consistent with what some affirm that the value of the urban impact lies in its intellectual content and that its sustainability lies in the strength of the apparent and

underlying spiritual expression embraced by its formative elements and their reflection in the mindset of the recipient and the extent of their understanding and experiencing of the event or process [9].
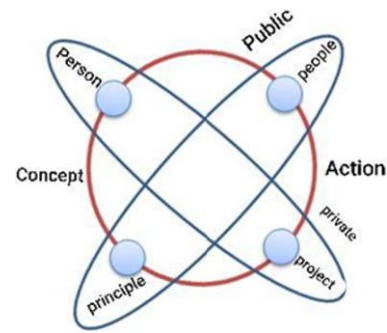

Figure 1. The urban process: Methodology based on the background of the spiritual values of society in the human subconscious [7]

1.2.2 Architectural urban product

The product represents concepts that describe or represent a given subject and express its essence [10]. Large-scale urban environments and urban environments that are integrated with nature try to adapt and conform to rules that suit the product's sensory and physical requirements [11]. Therefore, the urban product, with its physical formations, expresses the framework in which events and actions are organized, as well as the connotation that it symbolizes (Figure 2). It is an expression of the state of homogeneity between intellectual concepts represented by practices and spiritual values represented by worship, that are linked to each other according to organic relationships. In such kind of relationships, worship forms the spiritual force that works to eliminate the internal contradictions of man and unifies his approach with society and provides him with energy for practices.

(a) The spirit of harmony with nature through concave lines to express man's humility and respect for cosmic space

(b) Emergence of mass from the earth as an expression of the unchangeable spirit of immortality

Figure 2. Different civilizational insights into the relationship between mass and space (researcher)

Thus, the influence of religion and beliefs is manifested through the urban process and product to all three main areas where an urban phenomenon is represented:

(1) Cognitive: It is evoked in a prior manner by the creative self that creates the urban product or as perceived by the recipient.

(2) Behavioral: Society is highlighted in that output expressing the practical presence of practices and worship governed by the Sharia in the urban space.

(3) Organizationally: The product is embodied in a network of relations in the physical formation, expressing the realistic and symbolic presence of the three basic structures of religion: doctrine, Sharia, and ethics.

1.2.3 Architectural urban sustainability

It is the process of developing the urban space environmentally, economically, and socially, and its goal is the comfort of the human being. It is concerned with the appropriate exploitation of wealth and the improvement of services within a balance that guarantees the development of structures and equipment without damaging the natural and environmental resources. Moreover, it is directed to the benefit of contemporary society, taking into account the needs and rights of future generations [12].

In 1991, the Center of the United Nation for Human Settlements (UNCHS) defined a sustainable city as a city in which achievements in the social, economic, and material fields have been achieved to continue.

It can be said that urban sustainability is a state of balance and reformulation of the environmental, economic, social, and even political and institutional determinants and goals of the city that enables or provides a greater opportunity to achieve sustainable urban development. So, urban sustainability of a city combines the sustainability of natural resources with the technical, financing and societal sustainability of that city under the shade Sustainable urban development [13].

2. INDICATORS FOR EVALUATING ARCHITECTURAL URBAN PRODUCT

This paragraph seeks to identify the spiritual significance of urban products in different human civilizations to ensure the representation of religious thought and beliefs in the forms that the urban product has taken through its presence as a preliminary practice of the possibility of elucidating the beliefs and spiritual concepts of these products on one hand, and indicate the degree of sustainability and formative effectiveness of this content that, in turn, indicates the depth of what these civilizations had offered on the other. Achieving this goal requires an evaluation of the urban performance in civilizations in terms of spiritual (religious and beliefs) content by the following indicators:

(1) Targets: Each civilization has goals and objectives that it sets for itself and aspires to reach. The essence of urban process aims to secure the means for these ends through intellectual and emotional creativity. Regardless of how different the aims and objectives of civilizations' contributions, the continuation of civilization means progress by accumulating the ability to create a paradigm that everyone aspires to achieve, which serves a function in terms of expanding horizons and creating harmony and balance for the elements of civil structure. Society strives to realize the spiritual image it has created for itself for future stages [14].

Thus, the organic link between the spiritual forces of goals and evolution is not difficult to pinpoint due to the absence of the possibility to single it out. Spiritual forces are the goal.

(2) Range: Civilizations and societies differ not only in their goals but also in the time range taken to achieve their goal. Time in this context is an authenticity indicator for urban product. Time features appear to varying degrees depending on the fundamental aspects of civilization input and the effectiveness of its response to it. Evidently, whenever this data is well established and capable of highlighting the features of spiritual and intellectual orientation and its aims and harnessing its energies to strengthen it, the more it becomes in conflict with time to shorten it and produce a durable urban product capable of passing the values and concepts to pass through all generations [15].

(3) Continuity: It refers to the ability to sustain the momentum of achievement in an ongoing movement in an upward direction while ensuring that the distinctive and sensible privacy is maintained through expressive systems that embody the interaction between spiritual symbols and man. Since a civilization's output worth is measured by the value of its main component which is man, the lack of spiritual meaning means the absence of significance for that civilization. And it is assumed that if a civilization ceases to be productive through man then that gives an indication of its demise [16].

3. PRACTICAL STUDY

After the concept of thought and belief and its relationship to architectural and urban production was explained in the previous paragraphs. The research will conduct an analytical and descriptive study of a selected number of ancient civilizations to verify the hypothesis which states that: Each architectural or urban product has its own spiritual systems that worked on its origin and sustainability, as the urban product changes according to thought and belief.

According to the Toynbee Scale in the studies of history, humanity has witnessed over twenty civilizations. Each civilization has its own spiritual systems that have aided in its establishment and emergence of these aforementioned systems that vary with the change of religious ideas and beliefs associated with it. Each ideological period has its own spiritual systems, which have had a clear impact on the development of the cognitive, psychological depth of man consciously or subconsciously and thus their influence on the formation of the urban environment in this research Iraqi, Egyptian, Greek, Roman, and Eastern civilizations will be evaluated by their urban product through their intellectual, spiritual, and ideological structure, depending on the previous indicators (Targets, Range, and Continuity). As it will depend on analyzing the literary texts that dealt with those civilizations and extracting their design characteristics. To determine the extent of the relationship of thought to its origins, continuity, and permanence.

3.1 Mesopotamian civilizations

Several civilizations from the fourth millennium BC succeeded on this earth, the most important of which were the Sumerian civilization in the south, the Akkadian civilization in central Iraq, and the Babylonian civilization. Architecture in the Mesopotamia region is characterized by several features determined by the nature of the climate and the land [17].

3.1.1 The Sumerian civilization

The Sumerian urban and architectural production ruled spiritual concepts and beliefs related to the creation of the universe and their view of it, as they believe in the division of the universe system represented by the cosmic mountain into separate parts, each of which works as a stand-alone whole. That is, they believed in the multiplicity of levels of the universe, which was reflected in their cities which were a collection of parts as a result. Mesopotamian cities were found to be distinguished by the existence of two walls, one of which is the wall of the urban core and the other is the outer city wall. Walls, in fact, appeared as one of the important landmarks and since the first formative stages of the city around the third millennium BC. The Sumerian city planning was based on the principle of complete separation between the private part (temples and the royal palace) and the public part (the residential sector and other commercial and service facilities) [18]. This was reflected in the Sumerian society through democracy of Sumerian civilization: Evidence indicates that the democratic tendency reflected in the principle of equality was the most distinct characteristic of Sumerian society, which was reflected on the formative structure of the city (urban, social, political and administrative). The physical structures that symbolize the existence of God, represented by religious structures such as temples, palaces and so forth, have taken a central position to represent polarized spots through their own spiritual forces. Therefore, the planning pattern that is characterized by regularity and geometry is the most powerful expression of the power and greatness of the celestial forces and the humility of human beings facing them. Housing units and the rest of the secular buildings are organized around this attractive spiritual power within a simple schematic pattern characterized by formal and apparent lack of regularity with a predominantly organic character as a symbol of equality, democracy and the superiority of divine powers considering them the higher powers that control the city [19]. Paved streets and fresh water distribution networks are found in many of these cities, in addition to wastewater disposal networks and other city equipment [18]. It also took into account the climatic aspects and the influence of the hot winds in its design, so the streets were suddenly changed to mitigate the harmful effects of these winds [20].

3.1.2 Babylonian civilization

As for the Babylonian civilization, we find that the religious thought and intellectual beliefs prevailing at that time have been reflected in the general planning pattern of the city. Babylonians believed in the unity of the levels of the universe, which was reflected in the city's architecture and the sacred and administrative buildings. They used the perfect square shape and other pure forms. The network design of the city of Babylon, divided into square and rectangular sectors, symbolized the unity of the levels of the Babylonian universe, and thus characteristics such as stability and equilibrium emerge in all levels (parts and whole). This is clearly evident in the planning of temples zones, as the intersection of geometry and orthogonal planning with its strong, pivotal orientation can be found, which provides a sense of sobriety and visual equilibrium that is remote from dynamism [21]. The innovations of the Babylonian civilization indicate religious character and represent a spiritual product [22]. The roots of Babylonian intellect were directed towards glorifying the role of gods as symbols of power and influence, which is reflected through the large geometric blocks of temples and palaces and

the meanings they carry as part of an integrated spiritual system that praises the ruling god. This is in addition to the general planning pattern characterized by its "celebratory" axes that extend in a perpendicular movement. They are planned to fit with the ceremonial events held to venerate the gods and rejoice at the king's victories as offering to the god [23].

The interaction between architecture and urban product of the Babylonian civilization with the natural environment were clear. This interaction was represented in the gardens that were characteristic of its cities. and the evidence for that is the Hanging Gardens of the city of Babylon which, despite its geographical location that is characterized by its desert climate, it has used the natural elements represented in green spaces and water. These natural elements were the city's air conditioners soothing the heat. This was integrated with the principle of orientation inward in the architectural composition of its buildings, where they used the plan with a central courtyard or a group of courtyards on which different spaces open, and in all cases there is a large central courtyard representing the heart of the building [24].

3.2 The Nile valley civilization

The civilization of the Nile Valley coincided with the existence of Mesopotamia civilizations, and the religious factor in this civilization was associated with a set of strict beliefs and divine laws based on the idea of eternity. The Egyptian religious doctrine is based on the principle of perpetuating the dead as a symbol of the continuity of the universe through the Trinitarianism principle with its substantial philosophy that believes that the universe is but one connected substance, complemented by another essence that links man to the soul, down to the third essence that connects man with animals, the death world and the gods. The philosophical thought of the Egyptian civilization emphasizes eternity through the sides of the triangle that connects its vertices in a continuous motion that mimics the perpetuity of the universe [25]. The strong central axis leading to sacred religious sites of rectangular, square, or triangular (pyramidal) geometrical shapes relied on proportional relations of standardized systems between its parts, especially those derived from the dimensions of the triangle 3:4:5. This triangle carries in its dimensions an indicator referring to the essence of monotheism as a symbol of the eternal connection between man and God through the transcendental spirit [22]. The pyramids are a mere physical manifestation to contain the vital force underlying the meaning of immortality in the ancient Egyptian thought built to preserve the essence of the soul as an expression of universe continuity.

The architects in the Nile-valley civilization have succeeded in devising solutions to meet the needs of their society under several influences, on top of which are religious beliefs and the prevailing environmental conditions. The roofs of the pyramids were directed towards the original destinations with high accuracy, and ventilation was made for the king's room. It is also noted that the pharaohs used natural ventilation systems in their buildings [26]. The pharaohs' architects also used natural lighting, as it was used to illuminate the funeral path of the Pyramid of Unas in Saqqara [27]. The temple architecture in the Pharaohs era was associated with astronomical and cosmic cycles such as the movement of the sun in the celestial constellations, as the architectural thought in that era went beyond the stage of adapting to the

surrounding environment to conform with the entire universe [26]. The rise of the Pharaohs' civilization near the Nile Valley had a great role in the settlement of the Pharaohs, so they established very sophisticated agriculture and planted

The presence of gardens near the Pharaohs' palaces, were meant to soften the atmosphere inside and outside the cities, and protect them from the sandy weather that characterizes the region, so as to keep on a balanced climate. The urban environment from a natural and climatic point of view, so be an environmentally built environment consistent with their natural conditions [24]. Therefore, the natural environment inside the Pharaonic cities was balanced without defects. Preserving and developing this environment were one of the priorities of the ruling authority, as parks occupied an important role in the palaces and cities of ancient Egypt, and the chess plan allowed these cities to secure the regular spaces necessary for balance [28].

3.3 Greek civilization

Greek civilization represents a creative intellectual culture in which religious doctrine has taken a firm position. The society was characterized by high-level civic relations. The early philosophers were able to cultivate and refine them in accordance with the regulatory laws that emerged from the spirit of religious belief. The Greeks tried to reflect their religious thought in city planning by creating regular planning systems symbolizing justice and equality, emphasizing the spirit of religion. This led to the adoption of a grid system with straight axes and intersecting streets, which is more evident in the area of religious sites such as temples lined up on the centrally located Acropolis plateau with majesty and greatness [25]. As well as the spiritual polarization that confronts man through the entrance to the sacred complex to gradually flow around the Parthenon edifice to reach the temple of the gods, which represents the epitome of sanctity and symbol of eternity. The general framework of the Greek city displays a response to the natural lines to reveal the city in a tightly irregular pattern.

The effect of the non-straightness of the optical axis linking religious and secular buildings fades due to the existence of a state of visual equilibrium based on theoretical geometric theories of religious origins that reflect a state of proportionality between the parts with each other and with the whole [21].

In the Greek era, however, the theories of architecture and planning in the West began to take their philosophical framework, and the grid layout of the Greek city appeared. Aristotle mentioned that this system was formulated by the Greek engineer Hippodamus 500 BC, and one of the most important factors that drove him to invent this system was the recommendations of doctors, as Hippocrates recommended that the city should be planned so that sunlight could enter its dwellings [29]. The ancient Greeks, for example, planned the city of Olynthus in the fifth century BC in a way that allow all its streets to receive an equal amount of sunlight. They also constructed most of their buildings facing the east with large openings toward the south. This method of construction allows obtaining the largest amount of solar radiation in the winter when the sun is low in the sky, which is the season most needy of the sun [30]. The Greeks also did not try to overwhelm their buildings with nature, but they tried to place buildings in nature as one of its elements by using anthropometric analogy. The assembly of buildings was not done on the basis of the design that the architect puts in at one time in time, but was done on the basis of planning thinking that helps to integrate the construction of public buildings over a longer period of time, and the spatial formation of the acura in the city center was linked to the beautiful nature of the site. The Greek city appeared with its automatic image as related to the nature of place on Mother Earth. The vegetation that surrounds the acura and spreads across the city is evidence of the extreme care that the Greeks gave to nature. The cities' sites have been chosen in places of a complex topographic nature and are dealt with in a way that preserves the natural environment. Additionally, the choice of city sites in most cases is in sites that are protected from the harmful effects of strong, and dominant winds, having a view of the surrounding landscape [24].

3.4 Roman civilization

The influence of religious thought was more evident in the Roman civilization than in the Greek, in spite of the inter-relatedness in terms of spiritual and philosophical ideas of both civilizations. This was evident in the rooting of religious values in the self of the Roman citizen to elevate the gods whose wisdom extended to regulate the finer details of his life. The religious edifices were erected in the Forum with a central location and were characterized by their human scale.

There is no doubt that the Romans enriched their architectural and urban experiences through what they inherited from Greek and Assyrian architecture. Therefore, the Roman Empire maintained the ecological balance within its cities, as the expansion of the empire made its regions exposed to different climatic factors, from regions with a moderate climate to others with a hot climate. This led to the creation of architectural features that suit each region separately. So, some difference in architectural details or some variety in architectural additions can be noted. The Romans took care of gardens and orchards, and also built pigeons, gymnasiums, and libraries, so their sport was muscular and intellectual, so they enjoyed psychological and physiological comfort. Roman cities were also distinguished by the fact that they were built with the same local materials found near each city, and thus diversity existed in its general form [24].

As for the secular aspect, the subjugation of the world was Rome's constant ambition and obsession which, in turn, was reflected in the structural colossus and luxuriousness of palaces, victory arcs, senate and theaters. Together, they form attractions located at the intersections of circulation routes in the city, having emerged as evidence of law's prevalence [31].

Through systematic thought and religious revelation, the Romans were able to achieve a planning system that solved the problems resulting from populace expansion. The rigid geometric system and straight optical axes have gone beyond the irregularity of the natural topography through the processes of earth leveling and creating regular external city borders. All of the aforementioned carries expressive indications of the human respect for his city and his will to preserve its purity considering it the image of Heaven and the place where gods on Earth reside [32].

3.5 Eastern civilizations

Religious and beliefs represent the essence of oriental philosophies. Meditation is of great importance in oriental thought for the purpose of understanding physical entities and realizing their essence. As a result of the complexity of oriental

thought and its dealings with post-sensory worlds and intellectual formulas, it led to the use of excessive moral and sensory symbols due to the limited ability of language to communicate and express concepts [33].

The concept of beliefs, philosophy, and oriental thought was reflected in the city, where openness to nature represents an attempt to unite them through the process of meditation through space, which represents a fundamental spiritual dimension in which mysterious values are transferred to the human self. This value represents the collective self that works to unite society in the city, as the street represents a reduction of worldly life by penetrating the city towards the sacred temple to embody the containment of all religious and secular activities of the society, as it is subdivided by orthogonal secondary paths to form the paradigmatic pattern of direction and dynamic continuity.

The philosophy of Feng Shui is one of the oldest philosophies in China, which has been applied in many aspects of life there for several centuries. The recent philosophy found practical solutions for adapting to the place as well as finding alternatives and solutions to its negative effects and those of the surrounding environment, starting from interior design and ending with city planning. The Feng Shui philosophy in designing visual features was also based on blending nature with man [34]. The principles and practices of feng shui aim to create a coordinated built environment in which one can live and work, representing a traditional Chinese architectural theory for selecting preferred sites as well as designing and planning buildings and cities. For centuries, the Chinese have relied on this intelligent relationship with nature to ensure their protection and survival in this world [35].

This process, in which the urban output is generated and observed by the innate religious tendency of man in his quest for harmony with nature and the universe, was clearly manifested in the urban products of human civilizations, whose performance in civilization varied with the durability and effectiveness of this content in the minds and beliefs of peoples.

Orientation to, and relationship with the environment were of the utmost importance in planning the ancient Chinese city. Parts of the Chinese building have also been organized in harmony with the forces of nature and the local environment. Chinese city planning emphasized the need to link the built form with the environment.

From the crystallization of this evaluation concept, it is now possible for us to explore the religious and belief content of the urban product in human civilizations with the depth of its ability to communicate and the permanence of the presence that expresses the efficiency and sustainability of urban performance.

4. RESULTS

After the study cases were described, the results that were reached through the analysis of those cases will be clarified, and these results are shown in Table 1 and Figures 3-13.

Table 1. Results of the urban environment formation of the selected civilizations

The civilizations	Structural characteristics		The Targets	Range, and Continuity
The Sumerian Civilization	Equality		democracy	social sustainability
	The organic urban fabric		democracy	social sustainability
	Human scale		democracy	social sustainability
	Central position of temples and palaces		the superiority of divine powers	continuity
	Regularity and geometry in planning		the superiority of divine powers	urban sustainability
	Simplicity		the superiority of divine powers	continuity
	Creativity		the superiority of divine powers	continuity
	collection of parts		universe's division system	social sustainability
	private and public space		universe's division system	social sustainability
	freshwater distribution networks		environmental treatments	environmental sustainability
	wastewater disposal networks		environmental treatments	environmental sustainability
	Road networks direction		environmental treatments	environmental sustainability
The Babylonian civilization	stability		strength of the religious thought	social sustainability
	visual equilibrium		strength of the religious thought	continuity
	system		strength of the religious thought	permanence
	sobriety		strength of the religious thought	sustainability
	pure shape	square	unity of universe levels	permanence
		rectangular		permanence
	network design		unity of universe levels	flexibility
	Large geometric blocks of temples & palace		the prevalence of spiritual forces	social sustainability
	the perpendicular fabric		the prevalence of spiritual forces	flexibility
	green spaces and water		environmental treatments	environmental sustainability
	courtyard		environmental treatments	environmental sustainability
The Nile Valley civilization	The eternity		universe continuity	social sustainability
	The Regularity		The dominant of spiritual forces	flexibility
	unity			permanence
	central axis		The dominant of spiritual forces	
	geometrical shapes	The rectangular	the essence of monotheism	continuity
		The square		

The civilizations	Structural characteristics		The Targets	Range, and Continuity
	proportional relations	the triangle / the dimensions of the triangle 3:4:5	the essence of monotheism	continuity
	natural ventilation		environmental treatments	environmental sustainability
	natural lighting		environmental treatments	environmental sustainability
	direction		environmental treatments	environmental sustainability
	green spaces		environmental treatments	environmental sustainability
Greek civilization	regular planning systems		justice and equality	social sustainability
	The grid system	Straight axis / intersecting streets	justice and equality	social sustainability
	The central location of the temples		the superiority of divine powers	social sustainability
	Eternity		the superiority of divine powers	social sustainability
	visual equilibrium		theories of religious origins	continuity
	proportionality between the parts with each other		theories of religious origins	flexibility
	proportionality between the parts with the whole		theories of religious origins	flexibility
	respect nature		philosophical framework	permanence
	Human scale		environmental treatments	environmental sustainability
	direction		environmental treatments	environmental sustainability
	Green spaces		environmental treatments	environmental sustainability
	topographic		environmental treatments	environmental sustainability
	city sites		environmental treatments	environmental sustainability
Roman civilization	The central location of religious buildings		the superiority of divine powers	social sustainability
	human scale of religious buildings		humility	social sustainability
	the structural colossus and luxuriousness of palaces, victory arcs, senate and theaters		the prevalence of law / ideals of religious thought	continuity
	The rigid geometric system		the superiority of divine powers	continuity
	straight optical axes		the superiority of divine powers	permanence
	variety		environmental treatments	environmental sustainability
	local materials		environmental treatments	environmental sustainability
	Green spaces		environmental treatments	environmental sustainability
	Entertainment buildings		philosophical framework	social sustainability
Eastern civilizations	the moral and sensory symbols		ability to communicate and express	
	openness to nature	meditation	the fundamental spiritual dimension	environmental sustainability
	unite society in the city	Penetration of the city towards the temple	Connecting religious life with mundane	social sustainability
	Planning pattern	The secondary paths / The direction / Dynamic continuity	Connecting religious life with mundane	social sustainability
	harmony with nature and local environment		environmental treatments	environmental sustainability

Figure 3. The first principles of uniformity, equality and using the human scale in the organic urban fabric of the city of Ur-Sumerian civilization [36]

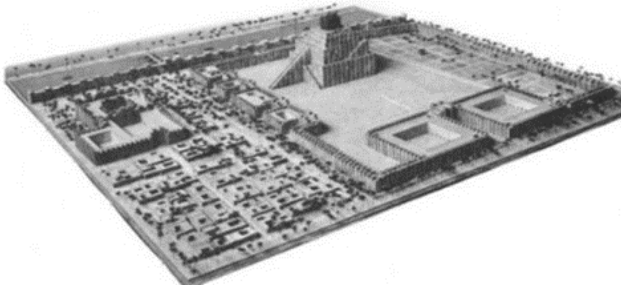**Figure 4.** Stability, and equilibrium and order in the part and whole in Babylon

Figure 5. The prevalence of large geometric blocks of temples over the perpendicular fabric of Babylon

Figure 6. Regularity and geometry in the doctrine of eternity in the Egyptian religion [37]

Figure 7. The religious complex is the center of spiritual and spatial polarization in the Greek city [38]

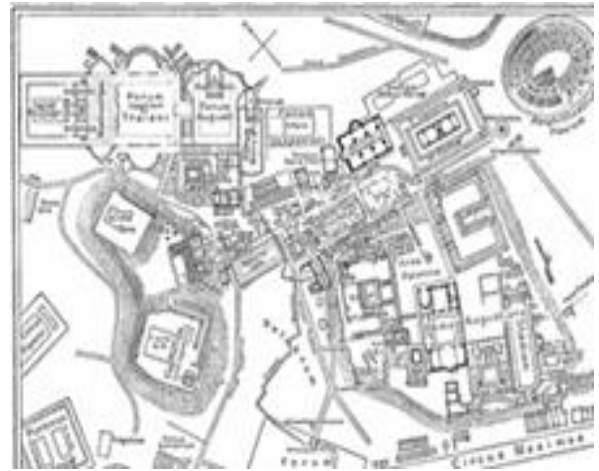**Figure 8.** Harmony with nature in the grid planning system (the city of Milet) [39]

Figure 9. The central location and human scale of religious buildings [40]

Figure 10. The massiveness of secular buildings (Colosseum) [41]

Figure 11. The prevalence of secular buildings and law in Roman civilization [42]

Figure 12. Openness to the nature in an attempt to unite with it [43]

Figure 13. The street represents the reduction of worldly life by penetrating the city towards the temple [43]

5. CONCLUSIONS

5.1 General conclusions

The physical presence of urban production through form and material is the process of manifesting the essence of a certain object and the expression of the self-existence of man, which appears through a set of goals that manifest in the form of human motives which exist in response to different circumstances and influences that vary in different societies.

The necessity for an integrated vision (spiritual - physical) for human products, especially urban products, constitutes a vision that suggests new horizons in the perception of addressing the problems facing man in those products through the knowledge of their religious roots.

The unity of the self-existence of man (physical- spiritual) is not closed to his limited experiences within the boundaries of his senses, but it imposes openness to the moral flow of existence as perceived by his mind and spirit.

Religion and beliefs work to guide society through a thought-suggestive path to a state of integration within a framework of collective coexistence. The latter produces an atmosphere of stability and urbanization, in which the values of religion are separated by worldly needs to make the ideals tangible in the human environment, thus entering the spiritual dimension as the organizer of man's civil products as he works to create organizational contexts driven by beliefs, canons and ethics. So, religion exerts its influence in urban process and production, which emphasizes socio-urban integration, one of the elements of urban sustainability.

The evaluation of urban product stems from its historical depth and how its concepts can penetrate time to create a state of valuable communication that imposes its presence in the minds and behavior of individuals and works to paint the true picture of a civilization whose influence extends and continues even after the change of features in its physical environment. This communication is merely an indication of the durability of the physical and moral structure of the city (as an apparent system) and the depth of the presence of spiritual forces and religious beliefs (as an implicit system).

The urban product of ancient civilizations based on intellectual and religious beliefs represents a model for achieving sustainability at the urban and architectural level, through the interaction of the part with the whole environmentally and functionally.

Some civilizations have been able to communicate and penetrate through time due to the forces and influences of their intellectual and spiritual creed.

5.2 Conclusions of the practical study

The prevailing characteristic of the Sumerian city was the reliance on man in terms of scale, thought, form, and innate references. Therefore, the urban product represented by the architectural and urban landmarks came to express the achievement of the goals of this civilization and the originality and sustainability of the urban product through its transmission to all generations.

The Babylonian thought, has emerged with products characterized by a high sense of spiritual power that symbolizes heavenly dominance in all aspects of life. It was, in fact, reflected in the form of physical entities with materialistic forms, representing creative achievements far from human capabilities to approach the heavenly forces. This shows the strength and authenticity of the religious thought and beliefs of the Babylonian civilization and the prevalence of spiritual forces in its aspects. The reflection of religious thought on the urban product led to the prevalence of the spiritual aspect of the structure on the city and characterized it with regularity as a symbol of gods' control and prestige.

The Assyrian cities were a mixture between nature and the built environment, in a way that their urban product was acclimatized and integrated with the surrounding natural environment.

The reflection of religious thought and beliefs on the urban product of Egyptian civilization led to the domination of the spiritual side over the city's structure, giving it the characteristic of regularity as a symbol of the rule and prestige of the gods. Therefore, Egyptian civilization encodes formats and architect them as a fundamental cause of the sensory perception beyond existence. It is based on a huge belief that has led to all the products of civilization, with its aesthetics and magnitude. And the urban product cannot be perceived outside its spiritual and sustainable context.

The remarkable characteristic of the Greek civilization was the combination of freedom and spiritual values which resulted from a philosophical, spiritual depth embodied as religious edifices full of meaning. The Greek civilization came to give a distinct character to the city, especially from its environmental aspect, so the city merged with the mountainous and natural environment, it did not change it.

The prevalence of law in Roman society stems from its emergence out of exemplary ideals of religious thought. Despite the deep-rootedness of religious thought in society and its involvement in all spheres of life, we find that the religious buildings did not appear on a colossal scale, but on a human scale to give a sense of gods' humility towards the Roman man as it sets the stage for the interaction between self and the heavenly world, as well as relying on natural resources, and environmental solutions to sustain their cities.

In China, the basic principle of Feng-Shui is the integration with nature, preservation, and development of ecosystems in the design process. This philosophy emphasizes that nothing should be done to harm the environment. Feng Shui represents an environmentally friendly way of life. Since humans were considered a part of nature in ancient China, Feng-Shui is a way of life that goes in harmony with nature, showing respect for nature and striving for an ideal environment for survival and development. The environment-oriented thought was of great significance in planning the ancient Chinese city. Parts of the building have also been organized in harmony with the forces of nature and the local environment. Chinese city planning emphasized the need to link the built form with the environment.

Some civilizations were successful to communicate and penetrate time through the forces and influences of their spiritual faith in order to explore its intellectual and spiritual structure. It is necessary to keep in mind that each civilization has its own characteristics that distinguish it from others.

The durability of ancient civilizations lies in the levels where these attributes show, which can be summed by the targets, range, and continuity.

Based on the elaboration of this evaluation concept we can now trace the religious-and-beliefs content of urban production in human civilizations through the depth of its ability to communicate and the expressive presence of the efficiency and sustainability of urban performance.

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