International Journal of Engineering & Technology, 7 (4.20) (2018) 134-141

International Journal of Engineering & Technology

Website: www.sciencepubco.com/index.php/IJET

Research paper



Hidden Rhythm in Residential Units with the Everyday Human Activity
Residential Units in Aadhamiyah as A Case Study

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Abstract

Meaning of home has been changed through time in relating human connection to his environment. We can notice the gap from the traditional models of housing to the modern models regarding the concept of house. The research aims and trying to explore the nature of this relationship and the transformations took place in changing the meaning of home. As a result, the main research problem has been identified as "lack of knowledge regarding the relationship between daily life rhythm and residential spaces today and the effect of physical space on human rhythm and its relation with the environment ". The research goals aim to identify residential spaces raises according to daily life experience and daily rhythm to get environments that sustain space feeling and continuity of residential units with the humanity of today, the research hypotheses addressed as:
Hidden rhythm of daily life reinforces human being with his environment through sustaining interactive spaces. The research suspected two types of rhythms: the first is Isorythmic Eurhmia rhythms that sustain interactive spaces; the second is Arrhythmia rhythms that lead to repellant unlivable spaces. The research finds traditional modes of sheltering corresponded with nature's rhythms at the same time, evoked rich patterns of social rhythms with healthy interactive spaces reaching to Isorythmic Eurhmia rhythms by harmonious synchronization of different rhythms interact with the environment, dilvers locality, identity and social interaction. While modern houses fail to accommodate changing needs producing arrhythmia rhythms with isolation and disinterest behaviors contradicting with nature's rhythm, have spatial control that achieves universality and restrict relationship between time space and human activities inside the space.

Key words: *Arrhythmic rhythm, Hidden rhythm, Interactive spaces, Isorythmic Eurhmia rhythm ,Ready made models.*

1. Introduction

The house is a spatial system meet the user's needs and provides space for the family activities, at the same time it facilitates interaction and communication with other family members, guests and neighbors. Any changes in users and their lifestyle require a new spatial configuration. At the same time any change in physical spaces of residential units reflects and affect human behavior. the change of housing type as a result to illegal legislation and growing demand on housing with the absence of planned programs to fulfill the demand of housing , affects the existing housing facilities in a way that do not compatible with human needs and habits of daily life. The imposed plans do not deal with the context and separated from the environmental inputs lead to insufficient living and sleeping spaces, loss of creation area noticed decrease in social activities and finally poor availability of fresh air. As a result the research questions addressed as:
How can indoor spaces satisfy the inhabitant's needs and how can be improved to achieve a best quality of residents life ?
The research tries to discover the characteristic of sustainable environments that sustain the relationship between human and his environment to build interactive spaces that accommodate changes, interact with the changing needs and requirements of human daily life behaviors and routines. **Therefore the research identifies its goal in raising residential spaces** according to daily life experience and daily rhythm to get environments that sustain space feeling and continuity of residential units with the humanity of today **and** The **Research hypotheses** addressed as Hidden rhythm of daily life reinforces human being with his environment through sustaining interactive spaces. In order to test the hypotheses and to achieve the research goal, the research divided into three phase: the first phase previous studies stands on the meaning of hidden rhythm through its two type: Isorhythmic rhythm and Arrhythmic rhythm finding their indicators in architectural spaces, the second phase adopted application study of housing district to study the effect of readymade models on human rhythm and its reflection on the environment. The third phase of the research stands on the characteristics of healthy interactive spaces that adopt the relationship between human rhythm, others rhythm and the rhythm of nature based on daily life habits and routines , the research depends on analytical methodology field study to investigate sector 318 in AL-Aadhamiyah as a case study. To stand on the changes occurred and its consequences on human behaviors and social relations between residents, the research depends on analytical study and direct interview with residents of random sample method with (62) housing units which represent 10% of the total housing unit in the district (620) .the research structure divided into 3 main parts :the first part discovering the meaning of hidden rhythm through previous studies to find it's indicators in architec-

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tural spaces, the second part field study to investigate the effect of readymade models on human rhythm and its reflection on the environment , the third part draws the characteristics of healthy interactive spaces that adopt the relationship between human rhythm, others rhythm and the rhythm of nature based on daily life habits and routines. The research structure can be explained in the following diagram

2. Hidden Rhythms of home

A house is a place for human activities during days and nights in all years. These activities motivated by changing needs, in return the meaning of home is the one that can embody interactive routines and achieve resilient order designed according to daily life. The meaning of home is the interrelated relationship between time, space and everyday life. Homes should be constructed on interactive spaces shape and shaped by the inhabitants includes dynamic interaction between time – space and humans (Bachmann, Veit, p.18). imbedded social dimensions represented through daily routines and activities took place, each social interaction requires a space and affected by it, **(Gehl, 2001)**.Every day refers to the way people, individuals, groups or societies can live, behave, think or feel as a daily basis, the concept involves self-definition and how people can set imaginable relations with others and with the world. It can be of behavioral choices, routines, activities, rituals, beliefs or thoughts controlled by social or physiological rules, that forms the type of behaviors took place (Wikipedia,) behind these hidden rules the physical environment (whether natural or built) can form an important noticed and direct impact on human behavior .the following studies represent the identification of hidden rhythm and its relation with architecture:

2.1. Henri lefebvre, 1999

Studied the impact of physical environment on human behaviors from a daily life perspective, pointed out that we get stuck to the familiar daily life in a way that we became unable to see or perceive a lot of its phenomenon. Specifying that ambiguity is a main characteristic of everyday life, what supposed to be visible is not always visible but it can be hidden to represent indirect representation of needs or situations. Specific phenomenon can be seen repetitively that we couldn't perceive it without deep analysis**.** therefore , Hidden rhythm is the key factor enables designer to listen to the life of the space , the hidden rhythem implies nonmeaserable time social time- biological time which include a nonlinear relationship between time and space . the hidden order of the space depends on two type of repetition : linear repitition represented in daily habits and routines and syclical repition representesd in life sycles , day and seasomal sycles , environmental sycles . the space of ahidden rhythm should embody interrelated relationship between linear and syclical repition which each one measures itself through the presence of the other . the hidden rhythem of space can be clasified into the following types :

- Polyrhythmia means the presence of multiple rhythm in a space
- Eurhythmia represent the rhythm we need to satisfy in a hemogenious order .
- Arrhythmia means the preseance of contradicting hythms

Isorhythmia means the synchronization between rhythms with harmoney . **Isorythmic Eurhmia rhythms** exist when there is multiple rhythms exist in a harmonious situation

2.2. Lynch, patrick ,practical,2015 "rhythmic spatiality and the communicative movement"

The study specifies the importance of hiden rhythm in continuity of meanings while the design depending on theories is amental blindness to the external environment the design process depending on practice exisits behind drawings to the real life represented in social and cultural contexts . the hidden rhythm(not external but temporal rhythm) is the key factor in idiological comunication which focuses on situational structure and the role of praxis with the exist of rhythm in detecting this structure. He consider Modern architecture is free of language in its separation from the language of traditional architecture by being empty cages lacking social aspects and serving as a masterpiece that has nothing to do with the rhythmic experience and social life of the city. Fig (1-1)

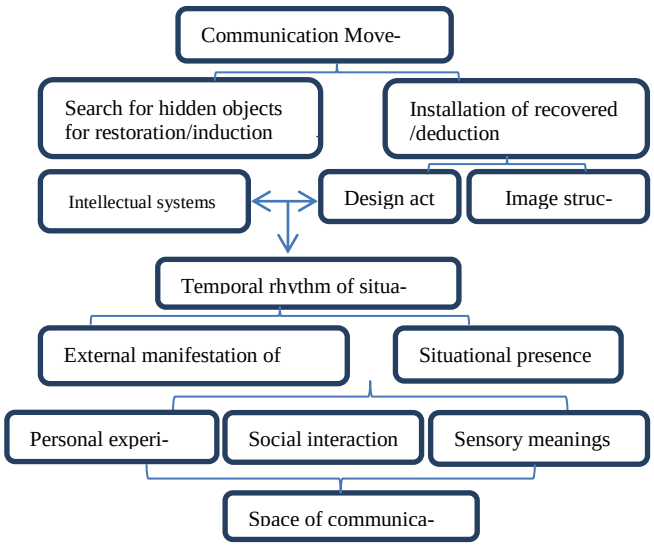


Fig .1: the importance of hidden rhythm in accessing communication movement in architecture.(Researcher according to study

2.3. Wunderlich, 2013: "place-temporality and urban place-rhythms in urban"

explore the aesthetics of space-temporality focusing on expression and representational aspects focusing on non-spatial dimensions formed through space rhythm, space performance,space temporal performance, space tonality and sense of time. The space has temporal time of expressive characteristics with important relationship between sense of time, spatial-temporal and social characteristics . The place has a rhythmic characteristic by its nature. It depends on repetition of individuals' movement patterns and opportunities to meet and stop for rest both repeated between nature cycles and architectural patterns to merge into bonds of rhythms. The study identified the existence of two types of auditory rhythms in the urban environment: the first is tonal rhythms in which the rhythms are compatible, they are iso rhythms which are either continuum rhythms, characterized as being soft, , and indicative rhythm characterized as being rough, both types are unique rhythms, the second type is Atonal rhythms described as disruptive or destructive rhythms, as in Fig. (1). They represent the classification of rhythmic systems according to sensory and emotional expressions in urban space.

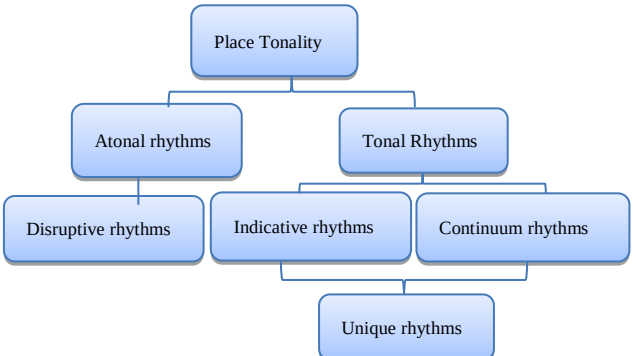


Fig.2: classification of rhythmic systems according to sensory and emotional expressions in urban space. .(Researcher according to study)

2.4. Han, 2012: " locative interaction in urban space: programmatic flexibility":

Studies the relationship between spatiality and temporality. Expresses that spatial is an expression of the fixed components in the urban environment while temporal expresses the structure of life. Experience is generated in the urban space through interaction between physical dimensions of place and movement of the inhabitants according to the behavior and routine of daily life. This experience consists of variety of rhythms interact with each other to represent urban rhythms lead to the spaces of experience and practiced space.

2.5. Hsiao-Wei Lin, 2002: "Sensing the Rhythms of a Dynamic City An interpretation on the form and content of the streetscape of Taipei"

the study specifies the role of hidden rhythm and social rhythm in the realization of originality, specifying that originality is not only through application to reach global-local hybrid cityscape. The uniqueness of the place arises from the social interaction and social relations and mutual experiences in the place. Originality defined as a spatial reflection of the living experience by the inhabitants of the city.

2.6. Ralph L.Knowles, 2006:

Ritual House, Drawing on Nature Rhythms for Architecture and Urban Design" The study refers to the concept of hidden rhythm in traditional architecture, in the context of human behavior accommodating with nature's rhythms, resulting in ritual practices that have been abandoned and ignored as a result of the technology, providing unified solutions reflected in uniform buildings, thus influencing human behavior to produce automated behavior patterns that lack to creation, creativity, communication and identity. The sensory and aesthetic experience of space within the building is achieved when user experience connected to the rhythms of nature.

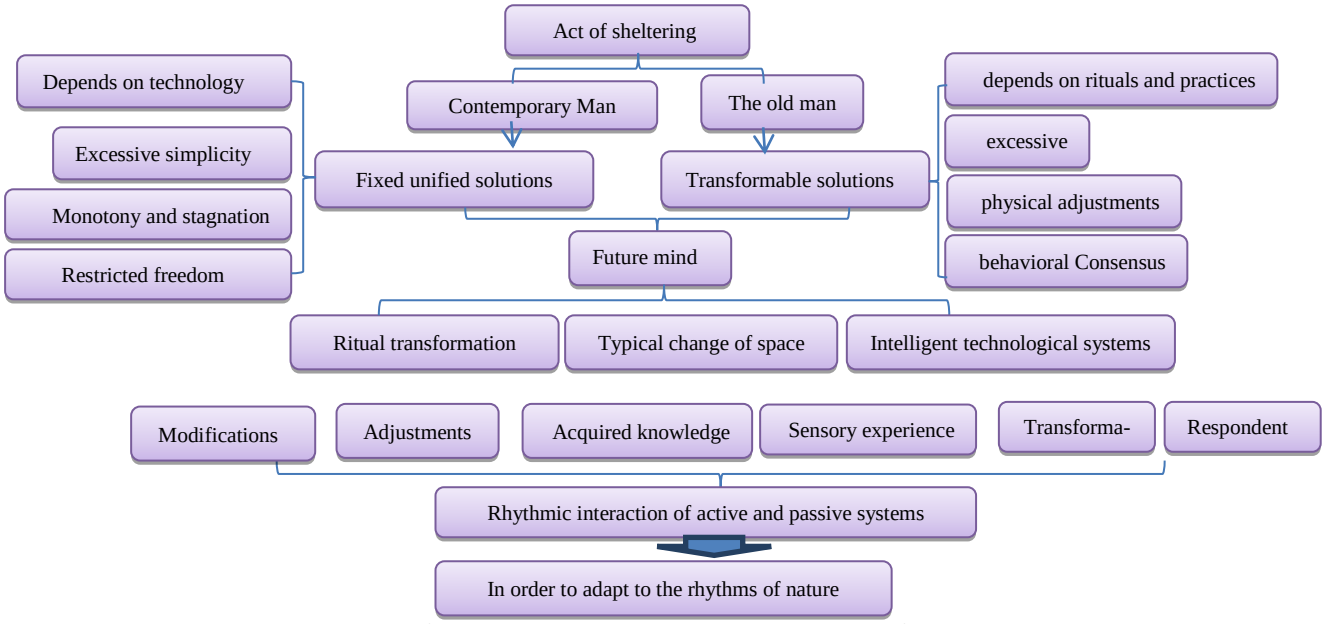


Fig (1-3): demonstrates the interaction of active and passive accommodation with the rhythms of nature .(Researcher according to study)

2.7.Taufan ter Weel, 2009:"

Architecture of Process, Towards a Theory of Interrelated" Processes in Architecture and Music" the rhythm is the Structured time , the perception of time and its connection to the daily way of life. The existence of interaction between time and space with the condition of a completed event. The importance of rhythm is to understand and analyze human's daily life. It is means of measurement that does not deals with space only but through the processes that take place in that space. It also recreates the direct relationship between human body, space and time as well as its connection with other objects - social associations and history, vilifying the architecture that interested in form and the appearance as a final product instead of individual's spatial experience over time.

From previous studies we reach to procedural definition of hidden rhythm that defined as:

"External manifestations of relative time based on set of patterns (behaviours ,meanings and symbols) with cyclical and linear repitions connected with daily life , these repition interact with each other to frorm a complex net of associations generating a space of representation that have renewal transformable orders or what called generative logic ". Theses hidden rhythms concerns with temporal dimensions of space and the importance of daily life representation that took place, these representations form events in a space to give it identity and transfers it to place, hidden rhythm divided onto two types:

Healthy rhythms consist of bonds of rhythms interplay with each other synchronizing harmoniously representing **Isorythmic Eurhmia rhythms**.

Morbidity rhythms consist of rhythms act with chaos and disorder representing **Arrhythmia rhythms**. **Table (1-1)**

the space that embody the meaning of home should have a complementary relationship between time space and every day life, the creative rhythms that satisfy interactive spaces can satisfied through the Isorythmic Eurhmia rhythms

Rhythms of house consist of bodily rhythm, social - psychological rhythm, and environmental rhythm interact with each other to give interrelation between inside and outside fig (1-4)

Table 1: Indicators of both Arrhythmic and Isorhythmicrhythms.(Researcher according to previous studies)

	Arrhythmic rhythm	Isorhythmic rhythm
Constructed Behaviours connected with daily life	Isolation behaviours	Balance with nature
	Disinterest behaviours	Sensible ,responsive and adaptable behaviors
Relationship	Monotonous time	Structured time

with time		
Relation with nature	Contradicting with natures rhythem	Synchronization with natures rhythm
Time ,space relationship	Isolated relation between time space and everyday life .	Interacted relation between time,space and daily life
Type of rhythm's controll	Spatial controll	Temporal controll
Logic	Consumptive logic	Generative logic
Rhythm production	Representations of space Ready made models	Space of representation Livable models depend on experience in designing the space
Space production	Universality and globality – uniform spaces .	Originality and identity transfering space to place
Nature of order	Restricted freedom – determinant choices .	Responsive Sustainable and adaptable with apportunities of choices

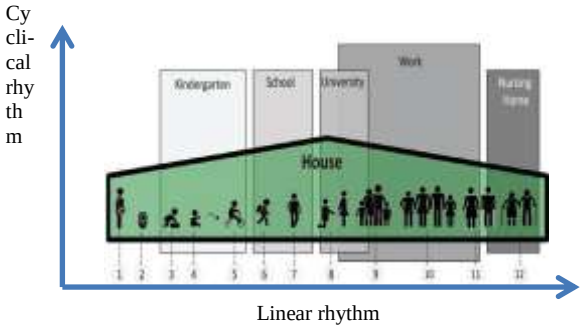


Fig.4: relationship between bodily rhythms and daily rhythms over time, Estaji, Hassan, 2014, p.28.

These rhythms interplay with each other, with externals rhythms and with environmental rhythms , **When designing and development process based on this synchronization it will leads to interactive temporal spaces but when designing process depends on readymade models It will affect negatively on human behaviors and controlling them. These universalized models affect residential units to shape human behavior and kills its creativity and ignoring individual's experience gained over time in interacting with the surrounding environment. The following paragraph will explain the effects of these models in residential units.**

3- Arrhythmia rhythms.: effect of readymade on human behavior - case study:

Residential unit is the core physical space that contains daily life routines, many practices led to the deterioration of residential unit. property theory caused by detached way of living as a result to the independence of individuals from their families followed by absence of laws and legislations , failure of planning programs to accommodate growing population growth on the other side with absence of law in preventing these abuses , opens the way for investors to behave illegally , The commercial objectivity of investors forces the owner (buyer) to live in these unlivable readymade models of life , ignoring its negative results on his life and the life of others in the neighborhood , one of these illegal practices is the encroach of sale and division of residential land into small areas in a way that do not match with criteria of residential environment, all these practices contributed in the emergence of multiple problems led to unlivable and repellent spaces that had a clear impact on the emergence of negative behaviors reflected in many aspects of life: the following paragraph contains a residential district as a case study , field study and field interviews with residents to collect information of their daily life , analyses the information to diagnose the problems. The study founds the following problems:

The increase in land prices real estate owners in these neighborhoods to invest the land of their own, changing the use of the building from residential use to commercial use, the utilization of financial returns, and the proliferation of commercial activities in the residential neighborhood all this led to the deterioration of the districts and the loss of the typology of neighborhood units, The large area of original residential plots encouraged their owners to modify them either by addition, division or both of them to meet the increasing number of family members or for the purpose of residential and commercial investments. The increase due to the addition or division led to a set of environmental, social and urban problems

Deterioration of infrastructure network with the growing growth of population and low living standard

Proximity of residential units as a result had a negative impact on the internal environment of housing units in many aspects, such as privacy and transparency, green space, lighting, natural ventilation and noise, led to imbalance of the appropriateness standards in them.

Windows clinging each other that decreases the degree of privacy, led to the displacement of old neighbors to move and live in new neighborhoods.

Congestion, traffic jams and a lack of private car parking leads to "loss of walking pleasure" in these neighborhoods with difficult accessibility to fire cars and other facilities.

Environmental concerns like noise, air pollution, the lack of public facilities, afforestation, water and sanitation, electricity and other service facilities, which have become overcrowded and unable to absorb the growing number of population leading to "disinterest behavior" represented in garbage dumps accumulation and insufficient attention to the cleanliness of the area. pic (1-2)

Structural worn out of the buildings, neglect of maintenance and restoration with reconstruction in ways that are not suitable for the architectural nature of the surrounding environment.

Imbalance of populations' social and economic life with random proliferation of commercial activities , fragmentation of social relations and the sense of social discrimination among the members of the community open the way for incidents and security problems to take place, which led to a sense of safety lack and low level of social and recreational services in the neighborhood.

Isolation behavior as a result to the crowded housing restricting freedom of the individual. One may not know where can sit, when can be alone, and when can watch television, this leads to family disintegration and isolation. The family members participate in the household allocations, creating an increase in their involvement in the privacy of some of them and thus creating tension between them.

As they do not meet the standard of housing , these houses suffer a shrinkage space dimensions containing physiological activities where most of the families live in homes less than 50 square meters , these narrowness contribute in loosing privacy of all family members beside the natural diseases which has its effect on psychological state of children. congestion of the house turn it into a place with the sense of distress , noise and loss of privacy, transforms its function from attracting place for family gathering and reunion to a repellent and threatened place to feel unfamiliarity and compassion among members of one family.

Because of the space shrinkage there is no enough space for furniture to contain therefore we can see some furniture pieces not in the right place that has its negative impact on circulation that causes confusion for the housewife in doing her daily activities inside the house beside the feeling of embarrassment in front of visitors .

The residents tried to find possible local treatment to modify, but these tactics where arbitrary and fragmented with partial solutions. These problems needs direct interventions to save what remains first by restricted rules and legislations supported by executive

staff. These Problems caused as a result to readymade models neglect the needs of the family in their daily life activities and environmental rhythms**. We concluded that consumption life-style of today put behaviors in a way that is easy to be controlled, it took away human's will in constructing his life , consumption life type therefore restrict human will and put free models for him to follow, it stereotype human rhythms**, **the residential uniform modern boxes in return and its physical spaces proved their inability in accommodating fast changes and verity of choices through time generating contradicting rhythms interact with each other to present Arrhythmia rhythms which isolate the daily human activity from the context and environmental rhythms. These contradicting rhythm represented in isolation and disinterest behavior beside imbalance and loss of attachment to space.**



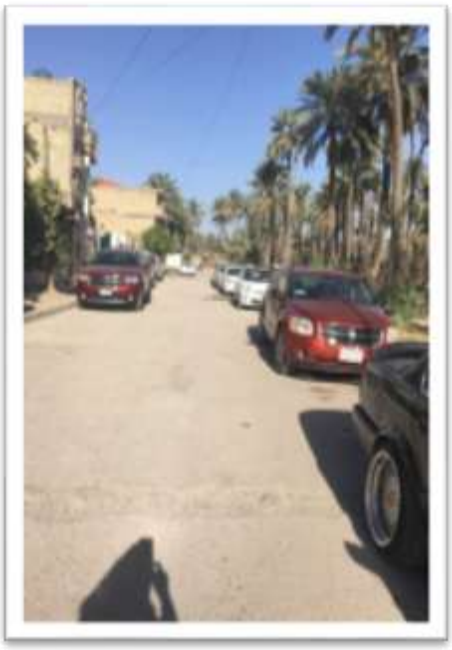
Picture1: deterioration of infrastructure network as a result to disinterest behaviors.



Picture2: Windows clinging each other with no buffer zone between external and internal wall that decreases the degree of privacy



Picture3: Imbalance of populations' social and economic life with social discrimination as a result to illegal residential investment



Picture 4: loss of walking pleasure as a result to traffic jams and a lack of private car parking.



Picture5: local modification for privacy as a result to untreated proximity.



Picture 6: because of space shrinkage there is no enough space for recreational activities with any relation between inside and outdoor activities.

Table (3-1): specifies the increasing numbers of dwelling unit from (200-2017) Researcher depending on data from Al-Adhamiyah district council

Number of dwelling units when 1990-2000		Number of dwelling 2000-2008		Number of dwelling 2013-2017		Land area
Num	%	Num	%	Num	%	
4	16.6%	2	6.6%	1	1.6%	800-1000m2
7	29.1%	5	16.6%	1	1.6%	600-800m2
9	37.5%	8	26.6%	8	12.9%	300-600m2
4	16.6%	15	50%	22	35.5%	100-300m2
0	0%	0	0%	31	50%	50-100m2
24		30		62		Total housing uits

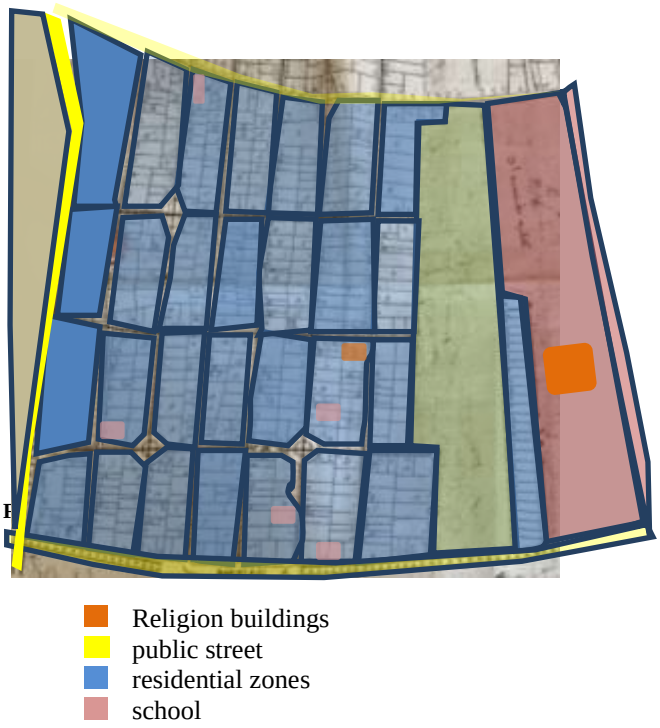


Table (2-2): specifies the increasing number of families from constructing till today .Researcher The researcher depending on field analysis

When constructing neighborhood		Neighborhood today	
Number of units	**Number of families**	**Number of units**	**Number of families**
20	**20**	**62**	**70**

4. Isorythmic Eurhmia rhythms in constructing interactive spaces:

Sheltering is a human rhythm affected by Environmental rhythm**,** when buildings isolate us from any environmental rhythm that could stimulate us to action; we lose a motive for ritual, a stimulus for creativity. Today, we mechanically lighten the night and darken the day, heat the winter and cool the summer. When we so completely override nature, we not only lessen the need for many customarily repeated acts of sheltering but we also loose a creative impulse (Ralph L. Knowles, Ritual House, Island Press, 1718 Connecticut Ave., Suite 300, NW, Washington, DC 20009 .p. 85) Nobody likes to live in a box for all of its needs**,** therefore, rhythm is the core requirement when we want to design a house. A house is not necessary to cover all users' needs at the same time, but it must be ready for any changes. These changes affect space requirements (Estaji, Hassan, 2014, p.28). Healthy interactive spaces inside houses can be found when rhythms interplay with each other harmoniously and interact with rhythms of nature,. Biological and social science, building science and architecture finds that the humans need to experience the diurnal and seasonal circadian cycles which might be translated into architectural design principles: (VELUX report, Circadian House, 2013).

Balance with nature: adaptability to changing conditions (daily, seasonally) and needs, either with physical adaptability by the space or with behavioral adaptability by the occupants or both of them.

Sensibility: A house that provides protection against harmful substances, which humans cannot sense, and allows freedom to control parameters that can be sensed.

Active participation with nature: means synchronization of daily rhythm with environmental rhythm.

These main principles have been adapted by means of design tools which aim to feel of time inside spaces:

Variation: focus on nature's cycles instead of seeking uniform indoor spaces; which leads to variation in time and space of indoor environments.

Stimulation/absence of stimulation: feel of difference between day and night, which needs higher level of stimulation from environmental factors during the day and the lowest level during the night.

Outdoor/indoor relation: accessibility and inspiration of outdoor and semi-outdoor areas where occupants are able to keep in touch with the changes and transformations of outdoor conditions in all main living areas of the house.

Light/darkness: Exposure to high levels of daylight is needed in the main living areas of the house during daytime, with special attention to the rooms that are mainly used in the morning, whereas the bedrooms need to provide complete darkness at night time.

Electrical lighting: change and variations of light spectrum and intensity should be adapted in implementing electrical lighting taking in considers the light intensity through the course of the day and distribution in space.

Cool/warms: temporal and spatial variations should be provided in the house following outside temperature variations adapting logical thermal environment.

Silence/sounds: need of sound and contact sound during the day while the silence is preferred during nighttime.

Rest/activity: variety of active, rest and restitution areas inside the house, the house design should inspire the occupants to be active, but also have areas for rest and restitution.

Flexibility related to the seasons: The use of outdoor and semi-outdoor spaces should be stimulated outside the heating season.

Controlling the systems: system that influence sensible parameters should be controlled like lighting level, air quality and indoor temperature.

Traditional houses prove its ability in being responsive sustainable and generative. That did not mean we must go back in time to primitive solution but stands on the principle and ideological model in how these houses were built**.** Spiritual aspect represents the first foundation on which the plans of these ancient cities were built, reflects the ability of our ancestors to deal with environmental conditions through the methodology of planning, adapting architecture to serve the human environment. Traditional modes of

sheltering corresponded with nature's rhythms and, at the same time, evoked rich patterns of social rhythms. (Ralph L. Knowles, Ritual House, Island Press, 1718 Connecticut Ave., Suite 300, NW, Washington, DC 20009 .p. 85) linked to the innate behavior of man, the nature of his relationship to others, and his environmental belonging, derived from his habits, traditions and lifestyle, which have evolved over different periods of time and generations, Achieved by the experiences and jurisprudence of our parents and grandparents was to adapt to the environment within different social, religious and economic standards (Taha, Rania Mohammad, p 44) Our first responses to change may involve only a search for comfort, but, through repetition, simple actions can eventually be expanded in detail to express our feelings**,** our delight in a place. (Ralph L. Knowles, Ritual House, Island Press, 1718 Connecticut Ave., Suite 300, NW, Washington, DC 20009 .p. 16).

5. Conclusions and Recommendations:

The relationship between daily social activities and physical spaces is interrelated; every day includes social practices, routines, habits and behaviors. These representations form events in a space to give it an identity and transfers it to place.

We should learn from these mistakes in the future development to put in mind the importance of daily life activities and practices in the design process to generate interactive spaces .

Unplanned division and addition to existing building affects residential units negatively influenced by ready-made molds to shape human behavior and kills its creativity in interacting with the surrounding environment resulting from experience gained over time. These residential uniform modern boxes proved their inability in accommodating fast changes and verity of choices through time.

Human daily rhythm should interact and response to environmental rhythms to create healthy spaces feels the change of time inside a house, the feel of day and night, the interrelatedness between inside and outside is important in creating healthy spaces.

Homes should adopt to change and occupy various and transforming needs. Traditional houses prove its ability in being sustainable, sensible and responsive, that did not mean we must go back in time to primitive solution but stands on the principle and ideological model in how these houses were built.

Acknowledgment :

I would like to thank Al-Adhamiyah district council
For their invaluable cooperation in supplying me with the necessary data for the research. And would like to thank the residents in sector 318 in Al-Adhamiyah for their cooperation in the survey of the sytudy.

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Appendix 1

Questionnaire for the study:
Questionnaire about Interaction between physical environment and daily human practices in housing unit. Baghda-Adhamiyah-sector 318

I am Nada Azzam a PHD student in University of Technology and assistant lecturer at Al- Nahrain University; I am preparing a study and analysis of residential and social reality in residential units in order to complete the research requirements.

Aim of the Questionnaire: To obtain information that will help the researcher to study and analyze the environmental and social conditions of housing and population in Mahalla (residential sector) . This information will be used only for the purposes of scientific research. The information will be treated generally not personally and names will not be written

Form number:

Wife	Husband	Boys	Girls	Relative

Name of owner					
Number of family members or age group					
Property	Owned	Ownership of an extended family	rented	Other: specify	
Time period of residence at home	Less than year	1year to 5 years	5to 10 years	10 to 20 years	More than that

Information about routine daily life:

1-	place my child spend timeplaying	Inside the house	Street	Garden	Garage			
2-	My children spend most of their time outside the house	Yes		No				
3-	I and our neighbors cooperate in solving our problems constantly	Yes		No				
4-	I feel responsible for and respect the environment	Yes		No				
5-	If the answer is no, the reason is	Lack of sense of belonging		Financial reasons				
6-	The family has a car	Yes		No				
7-	If the answer is no, the reason is	There is no safe stopping place		Financial reasons	I do not need it			
8-	Tensions between family members are ongoing	Yes		No				
9-	If the answer is yes , the reason is	lack of space		Financial reasons	Another reasons			
10-	Feel uncomfortable when performing daily activities	Yes		No				
11-	If the answer is yes , the reason is	Not enough space		Lack of privacy	movement between the spaces is uncomfortable			
12-	Meet my neighbors	Events and holidays	No one has visited me in a month	I have no relationship with neighbors	Daily	Weekly	More than once a week	Monthly