The Role of Design Characteristics of the Internal & External Spaces of Campus to Achieve Psychological Stability " Mosul University Campus as Case Study "

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Abstract: The architect plays a great role in influencing the professors and students behavior of the constituent spaces of the architectural form he produces, since the occupation of this space needs to provide his biological, physical and psychological needs, thus positively affecting the performance of the users. The productivity of the individual increases, whether for work for adults or for students. The study dealt with the effect of shaping the architectural form of the buildings in general and the university buildings in particular in achieving psychological stability for professors and students to increase their positive influence and their chances of success as individuals in the society, and discussed the negative effects of these buildings on the professors and students as they design their lives and negative perception of architectural elements, principles and strategies. The researchers conducted some practical experiments regarding the role of each building on the inside of their users in terms of (space capacity or narrowness, high or low ceiling , shape and color of walls and ceiling, straight or curved architectural design lines ,The value, as well as the shape and color of the furniture used). This role has been identified by distributing a questionnaire for each of the professors and students about the university building internal and external spaces at the University of Mosul, and collecting the data in special tables and then discussing the results. The architect who design and shape the architectural form of the university buildings must be well thought out as it directly affects (positively or negatively) on both of them of these configurations that he designed.

Keywords: Shaping the Architectural Form, behavior Aspects, University Buildings, Professors, Students,Internal and External Spaces, Psychological Stability, University of Mosul.

1. Introduction

The nature and permanence of any architecture are governed by two phenomena(emotion and mind) and their modes of expression. Many people think architecture is an art others consider it a science. This may actually happen. Architecture sometimes overcomes aspects of scientific rationalism and sometimes facets Emotional expression of artistic intuition and both types can find an unbalanced architecture, so the rational architecture is not a good building emotional architecture is also a good building and we find it quickly
disappears and disappears as an architectural phenomenon with those who had been invited to it or designed or created by the circumstances. This is what architecture seeks lasting and re-emerging despite the aggravating conditions is that architecture that balances the rational aspects and emotional, which appear by means of rational science and emotional artistic. That this balance is a so-called fact Formative fact. This is true of all branches of good architecture - the science and art of building design Architecture, urban planning, urban design, landscape design and furniture.

1.1 Conceptual and Theoretical Framework for Psychological Stability for Both Students and Professors:
The concept of "psychological architecture" emerged in the 1960s, especially in Britain of the last century, as a concept that expresses the cooperation between psychologists and architects during design of buildings in various functions to meet psychological needs of occupants of these buildings, the attention of designers around the world. It is now strange that there are psychologists working alongside architects in the design stage. The concept of psychological architecture as a theoretical science and architecture as an applied science is that both are human sciences dealing directly with human behavior. The psychological architecture is related to several terms, the most important of which are aesthetics, Aesthetics, and Perception. The user's perception of architectural elements is what negatively or positively affects their mental state, and even controls their thinking patterns for periods that may be prolonged to affect their lifestyle significantly [1].

1.2 Architectural Psychology (Theoretical and Conceptual axis):
When people think about the role of psychology in architecture, they are thinking about redefining the environment and spaces designed to give people happiness, which is called environmental psychology. It is important for both psychologists, architects and interior designers to create places that work to reduce tension. The organized culture of the built environment has a great impact on the process of learning [2], education and result, especially the physical aspects such as walls, furniture layout, ventilation, lighting area and its role in changing moods and emotions. In architectural psychology, Nei gives an impression of the designer person using Freudian and Jungian concepts to study architectural psychology as an important field of study that cannot be ignored. It is important to explore the needs, wishes and meanings to determine the constructive goal to achieve maximum satisfaction. Architectural psychology is much more than environmental psychology. For clients is an exploration of conscious thoughts and desires, inner self-expression, ambiguity and understanding of the symbols of primitive non-collective models. Architecture is the art and science of design as well as construction, space, structure and environment to achieve a goal with aesthetic features and to give a sense of excitement to viewers, orchestra and its three principles of utility, durability and beauty to keep in mind [3]

1.3 Psychological requirements for the physical, privacy and architectural environment:
The concept of privacy and personal space is the focus of behavioral environmental studies. It has attracted attention of sociologists and environmental designers in the past. With the increase of air pollution and scarcity of natural resources, importance increasing research on personal space, privacy and their relation to the built environment has been raised. Social psychologists call personal space in the hidden bubble as the surrounding area. And their strong effects on the behavior of human beings and their special psychological effects, which increases the vitality of designers of those environments, environment is a container of human activities and this is function of architecture. The design of an architectural space that meets his psychological and physical needs at the same time [4] not only the architect but all the engineers of internal spaces, designers of landscape and urban studies behavioral sciences and development of conceptual models that illustrate the relationship between man and environment through decision-making environmental design and its relationship to the environment built and used by individuals., physical nature
here we find value of creativity that accompanies behavioral science in solving problems of different creative processes, whether in the design stage and ways to solve and solve human behavior with them by the environmental design built environment. Art and architecture was the way to convey deepest unconscious ideas. [5] And even colors have a large role great effects on the human mind and can be used in the design of different buildings that were warm or cold with their positive and negative effects in the design of the interior and exterior interfaces in terms of shape, appearance, texture and size [6].

1.4 Internal architectural elements affecting the behavior of the human soul

The relationship between architectural design, interior design, the psychological state of users of space, and the effects of identity, privacy, safety and access, as well as aesthetics and the importance of architecture to achieve these psychological influences and their relation to architectural design and human psychological behavior are all understood by everyone who receives, imagines and responds differently. As well as differences in personal experience, culture, physical status, age, educational level, gender, socioeconomic status, and aspirations as factors with special interests that constitute the needs of the family. Architecture is directed towards programming, identifying needs, proposing a project and proposing the end of a suitable site that is compatible with behavioral needs, on the other hand, how to use the environment in terms of consistency with the needs of society [7].

1.5 Psychological effects of external spaces and open spaces in the interior

Physiological studies on open air and open spaces suggest that the natural environment can contribute to reducing anger, anxiety, relaxation and improving public health. Visual access to green spaces helps improve concentration and alertness, encourages social activities, social and recreational communication, and increases cultural activities with others. Communication with nature generates emotional, physiological, social and cognitive benefits, and may be direct contact such as sitting in the garden, for example, or indirectly through the window and can be used by the simulation used in the decoration. Such as posters and wall paintings that express the landscape within the interior spaces to enhance these spaces. It is important to take into consideration the psychological consideration of space users for surrounding environment. The designer needs to understand and evaluate the positive options for environmental conditions and nature such as sun, air and greenness, and create visual harmony between interior and exterior areas in terms of shape, size, transparency with outer spaces, degree of openness and paths that enable people to move freely. With attention to the surface of floor that was solid or soft and attention to electrical interfaces with technological systems to reduce the negative factors such as noise, smoke and visibility of the attractive vegetation cover [7]. As in the traditional garden of Suzhou in China, the spatial elements of rich influences with hills, flowers and trees have been added, giving rise to a sense of relaxation in each part and harmonious Chinese temple with its ambiguous feelings between the earth and the sky. As a reflection of the isolation of the individual attribute of subject matter with a series of human cognitive factors, various architectural spaces become more quiet or more active because of human existence [8]. It is possible to express internal aesthetics of space and its psychological effects by using the main factors affecting application of beauty such as shape, texture, color and light are created depending on the surfaces, sizes, dots, texture, color and materials and their composition and contribute to the creation of effective design meaning as symbolic attributes [7]. In order to achieve ambition in a built environment with positive spaces for users, the relationship between human feelings and architectural space should be studied based on the emotional interaction between designers and others using different geometric shapes in a three dimensional virtual environment and using computer simulations for example [18] to reach the most basic computer designs that express space engineering. Emotional poetical Many studies have shown behavioral effects of the architecture and emotional space on the person. The different motivational spaces stimulate different feelings and visual emotions using different spatial conditions [9]. The need to build an appropriate architectural space with technological progress and the emergence of intelligent green building has become necessary to understand relationship between space and the human soul. Space is not only artistic, but its contents must be enriched
and its technical characteristics are defined [17]. The space is bound by the same people's knowledge, and they coexist with each other to create a wonderful artistic space. It is a complex and clear relationship at the same time and is closely related to the mutual influence between them. It reflects shape, size, color, emptiness and steel by creating different psychological feelings for people. [8] A large number of applicable scientific studies have confirmed the relationship between biological responses and human reactions to sensory stimuli and clearly show that the mind, brain, and nervous system can be directly affected, either positively or negatively, by sensory elements in the environment [10],[19].

1.6 Case Study
The films were presented three segments of the respondents (professors, students) to find out how they reacted to these configurations after exploring the appropriate shots for new models of designs to determine the level of psychological stability of these characteristics using the virtual reality method[14],[15],[16], and using the analytical method one- one art therapy to achieve the functional side and the context at the same time. Which included eight pictures of each of these buildings included each of the Faculty of Engineering Buildings of Architectural and Civil Engineering and Engineering of Dams and Water Resources and Mechanics with the Faculty of Medicine, Nursing and Pharmacy and Dentistry[11],[12],[13], and the two questionnaires fill questionnaires to discover their thoughts and feelings and what they think Exposing them to these transient shots .

1. Questionnaire :
1. What do you think are the most important levels of achieving the design characteristics of the internal spaces of the university spaces for psychological stability? Configuration as a whole, Walls, Roofs, Architectural elements, Structural Details, Other ... please mention it
2. Your opinion, what is the most important influence of internal, external spaces in achieving psychological stability: Check the optical module, Apply various ideas, Modulation and change, Linking the elements environmentally and socially, Positive impact of detail, Other ... mention it
3. What do you think is the most important goal for the design characteristics of the interior spaces of the buildings?Humanitarian, My soul, psychological, social, economic, ideological, environmental, Contact me, Cosplay, Tension and tension, Surprise, Other ... Mention it
4. Which considerations are most important in your opinion in achieving psychological stability? Reverse the vocabulary of the language of architectural formation, Reverse the identity of the community, Show authentic ideas, Deepening the spatial affiliation of the individual, Deepening the temporal belonging of the individual, Deepening the contextual belonging to the individual, Deepening the concept belonging of the individual.
5. Achieving the strength of the link between the boundaries of the interior spaces with the outer spaces . Highlight vertical architectural elements, Highlight horizontal architectural elements, Highlight the oblique architectural elements, Other
6. Achieve your psychological stability by recognizing the most influential value ... namely: The aesthetic value, Engineering Value, Cultural value, Functional value, Architectural value, Historical value. Contextual value, Kinetic value, Other... mention it
7. What do you think is the most effective factor in determining the directionality of the internal spaces of the building to achieve psychological stability? View outside the building, Access to the most important job, Achieve visual integration, Achieving the occupants' privacy, Achieving aesthetic aspect, Achieving an environmental aspect, Achieving the comfort factor for the occupants of the building, Achieving the principles of sustainability, Achieving a civilized aspect, Achieving a design idea, Achieving structural structure, Achieve the diversity of images, Easy to connect with other spaces, Achieving flexibility for these spaces, Other
8. Remind the most important principle of design impact on your psychological stability within the internal space of the building: Scale, Descent, Proportionality, Balance, Homogeneity, Simplicity, Complexity, Rhythm, Organizational depth, Self-similarity, Symmetry, Fitness, Transparency, Full symmetry, Other ... mention it
9. What do you think is the most important design value to achieve your psychological stability within these spaces? Size, Commission, Lines, Surfaces, Color, Texture, Directivity, Shape, The border, The system, Other ... please mention it.
10. According to your perspective, is it possible to neutralize the importance of one of the following dimensions with regard to your sense of psychological stability within the space of university buildings? Aesthetic dimension, The plastic dimension, Impact dimension, Cultural dimension, Civilizational dimension, Historical dimension, Social dimension, Functional dimension, Structural dimension, Directional dimension, Other dimensions ... please remember her
2. Analysis of the results

2.1 for student

The below table shows the results of the questionnaire for students. Source (researchers)

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11. What do you think is the most important indicator of psychological stability within the university building space? Employ modern strategies, Employing a high functional level, Use visually efficient materials, Investment of a contemporary construction structure, Achieve appropriate spaces, Inclusion space is an innovative artistic composition, Use familiar finishing materials, Hiring consistent colors, Invest in a variety of tangible effects, Include positive separation and correlation components, Other ... please mention it
The most important influence of internal spaces in achieving psychological stability:

| Aspect                      | Percentage |
|-----------------------------|------------|
| The aesthetic value         | 20%        |
| Engineering value           | 10%        |
| Cultural value              | 10%        |
| Functional value            | 10%        |
| Architectural value         | 20%        |
| Historical value            | 10%        |
| Material value              | 10%        |
| Conceptual value            | 20%        |
| Other                       | 10%        |

The most important levels of achieving the design characteristics of the internal spaces of the university spaces for psychological stability:

| Aspect                      | Percentage |
|-----------------------------|------------|
| Naturalness                 | 20%        |
| My social                   | 10%        |
| Psychological               | 10%        |
| Social                      | 20%        |
| Economic                    | 10%        |
| Psychological               | 10%        |
| Intellectual                | 10%        |
| Sensory                      | 10%        |
| Spatial                      | 10%        |
| Other                       | 10%        |

The most important in achieving psychological stability

Achieve psychological stability by recognizing the most influential value

| Value                        | Percentage |
|------------------------------|------------|
| Descent                      | 20%        |
| Proportionality              | 10%        |
| Balance                      | 10%        |
| Homogeneity                  | 10%        |
| Complexity                   | 10%        |
| Harmony                      | 20%        |
| Organizational depth         | 10%        |

Achieving the strength of the link between the boundaries of the interior spaces with the outer spaces.

Remind the most important principle of design impact on your psychological stability within the internal space of the building: The scale

Importance dimensions with regard sense of psychological stability within Space of university buildings

| Dimension                  | Percentage |
|----------------------------|------------|
| Aesthetic dimension        | 20%        |
| The plastic dimension      | 10%        |
| Impact dimension           | 10%        |
| Cultural dimension         | 20%        |
| Civic dimension            | 10%        |
| Historical dimension       | 10%        |
| Social dimension           | 10%        |
| Functional dimension       | 10%        |

The most important design value to achieve psychological stability within spaces

| Value                      | Percentage |
|----------------------------|------------|
| Employ modern strategies   | 10%        |
| Employing a high functional level | 10%        |
| Use visually efficient materials | 10%        |
| Investment of a contemporary asset | 10%        |
| Achieve appropriate spaces | 10%        |
| Probabilistic space is an innovative util... | 10%        |
| Use tender facing materials | 10%        |
| Hiring consistent colors   | 10%        |

The most important indicator psychological stability within university building space

2.2 For Professors

The below table shows the results of the questionnaire for professors. Source (researchers)
The most important influence of internal spaces in achieving psychological stability:

| Influence          | Percentage |
|--------------------|------------|
| 31.8%              |            |
| 20.3%              |            |
| 18.9%              |            |
| 11.4%              |            |
| 7.7%               |            |
| 5.1%               |            |

The most important levels of achieving the design characteristics of the internal spaces of the university spaces for psychological stability?

| Level               | Percentage |
|---------------------|------------|
| 27.7%               |            |
| 15.2%               |            |
| 12.7%               |            |
| 7.7%                |            |
| 7.7%                |            |
| 4.9%                |            |

The most important in achieving psychological stability

| Value               | Percentage |
|---------------------|------------|
| 43.9%               |            |
| 22.4%               |            |
| 17.4%               |            |
| 12.4%               |            |
| 11.4%               |            |

Achieving the strength of the link between the boundaries of the interior spaces with the outer spaces.

| Link                | Percentage |
|---------------------|------------|
| 26.1%               |            |
| 17.4%               |            |
| 12.7%               |            |
| 11.4%               |            |
| 5.1%                |            |

Remind the most important principle of design impact on your psychological stability within the internal space of the building: The scale

| Principle           | Percentage |
|---------------------|------------|
| 27.7%               |            |
| 21.1%               |            |
| 14.6%               |            |
| 11.4%               |            |
| 7.7%                |            |

The most effective factor in determining the directionality of the internal spaces of building to achieve psychological stability

| Factor              | Percentage |
|---------------------|------------|
| 24.6%               |            |
| 19.0%               |            |
| 12.7%               |            |
| 11.4%               |            |

Importance dimensions with regard sense of psychological stability within Space of university buildings

| Dimension          | Percentage |
|--------------------|------------|
| 12.7%              |            |
| 11.4%              |            |
| 7.7%               |            |
| 4.9%               |            |

The most important design value to achieve psychological stability within spaces

| Value              | Percentage |
|--------------------|------------|
| 31.8%              |            |
| 22.7%              |            |

The most important indicator psychological stability within university building space
3. Conclusions

The architect who design and shape the architectural form of the building as general, and the university buildings as special must be well thought out as it directly effects (positively or negatively) on professors and students behavior who live in these buildings. And he must thought about these configurations that he designed. The architect must know that there are many effects of shaping the architectural form of the university buildings on professors and students behavior as general, and university of Mosul as special.

1. The architect plays a great role in influencing the professors and students behavior of the constituent spaces of the architectural form he produces, since the occupation of this space needs to provide his biological, physical and psychological needs, thus positively affecting the performance of the users.

2. The productivity of the individual increases, whether for work or for students. When he mention the effect of shaping the architectural form of the buildings in general and the university buildings in particular in achieving psychological stability for professors and students to increase their positive influence and their chances of success as individuals in the society.

3. There are many negative effects of these buildings on the professors and students as they design their lives and negative perception of architectural elements, principles and strategies.

4. This research conducted some practical experiments regarding the role of each building on the inside of their users in many terms like: Space capacity or narrowness, High or low ceiling, Shape and color of walls and ceiling, Straight or curved architectural design lines and the value, shape and color of the furniture used.

5. This role of design characters and shaping the building form has been identified for any building by distributing a questionnaire for the occupants in it about all aspects related with the internal and external spaces of the building.

4. Recommendations

1. Providing grants and soft loans to the University of Mosul to contribute to the financing of the establishment of the university's friendly campus for learning and the environment

2. Strengthening the regional dimension of the university

3. Activate the basic role in building academic and scientific bridges

4. Ability to make both teaching and research facilities, sports area and library environment friendly and to learn to provide all necessary equipment and equipment

5. Increasing students' absorption within the university admission from all over the world

6. Activate the role of international mobility while ensuring the university's ability to award double certificates

7. Activate partnerships with prestigious higher education institutions

8. Encourage intercultural dialogue, cultural and cognitive exchanges and cooperation in the fields of higher education, scientific research and innovation

9. Building a new generation of young people with unique scientific specifications, by applying all the design features that contribute to shaping the architecture of the campus buildings so that they can play an active role in making a positive change in the country.

10. The need for the University to emerge as its building and occupants of these buildings as a new center of excellence that contributes to stability and integration in all fields

11. Achieving the elements of the distinguished university building confers upon its users of professors and student's effectiveness, vitality, flexibility and efficiency.

12. Adopting advanced solutions that meet the needs of campus buildings at the University of Mosul by supporting green vision and environment-friendly investment of distinctive competencies in providing the highest levels of integrated solutions in the preparation of architectural buildings with indoor and outdoor space visually interconnected and efficiently.
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