

Application of Intangible Metaphor Architecture in the Design of Facilities for Students' Interests and Talents at the Miftahul Huda-Tasikmalaya Islamic Boarding School

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ABSTRACT

Architectural design approach, through the stages of data collection, analysis, synthesis, and formulation of design concepts. The results of the study show that Islamic values such as the spirit of worship, rahmatan lil alamin, and ukhuwah can be effectively translated into architectural forms, spaces, and experiences through a non-physical metaphorical approach. The selection of a hexagonal basic shape supports spatial efficiency, order, and the meaning of togetherness and sustainability that is in line with the pesantren culture. The conclusion of this study confirms that the Intangible Metaphor Architecture approach is able to produce a facility design that is not only physically functional, but also spiritually and contextually meaningful. This research is expected to be a reference in the development of Islamic values-based Islamic values-based educational facilities.

INTRODUCTION

Islamic boarding schools are Islamic educational institutions that have a distinctive education system and play an important role in the formation of character, spirituality, and lifestyle of students. According to Mastuhu (1994), pesantren not only function as religious education institutions, but also as a social system that integrates Islamic values in the daily lives of students. Thus, pesantren can be understood as a forum for life that shapes the personality of students as a whole through the formal and non-formal education process.

In the face of the current of globalization, Islamic boarding schools are required to be able to adapt without abandoning Islamic values that are their main identity. Ali (2013) stated that Islamic education needs to open up space for the development of students' potential in order to be able to be competitive in the midst of changing times, but still based on religious values. One form of adaptation is the development of students' interests and talents through art and sports activities that are directed and have educational value.

The development of students' interests and talents through arts and sports education has an important role in the formation of students' character and skills. According to Magdalena et al. (2020), the ideal educational process includes a balance between the cognitive, affective, and psychomotor realms. Therefore, non-formal educational facilities such as arts and sports are an important part of supporting the holistic education process of students in the pesantren environment.

Miftahul Huda Manonjaya Islamic Boarding School, Tasikmalaya, is one of the large Islamic boarding schools that has the potential for the development of educational areas. This is in line with the local regional planning policy. Based on the Regional Spatial Plan (RTRW) of Tasikmalaya Regency for 2015–2035, the Manonjaya area has the potential for the development of educational and social religious facilities. However, until now, centralized facilities that specifically accommodate the development of students' interests and talents in the field of Islamic arts and sports are still not adequately available.

The limited facilities have an impact on the lack of optimal development of students' potential and their readiness to interact with the community after graduating as alumni of the Islamic boarding school. Wasilah (2011) emphasized that the physical environment designed with the approach of Islamic values has an important role in shaping the behavior and character of its users. Therefore, the provision of the right facilities is an urgent need in supporting the educational goals of Islamic boarding schools.

In the context of architecture, the Intangible Metaphor Architecture approach is considered relevant to be applied to Islamic boarding school facilities. According to Antoniades (1990), metaphorical architecture is a design approach that translates non-physical concepts and meanings into the form and spatial order of buildings. This approach allows Islamic values such as simplicity, togetherness, and spirituality to be realized architecturally. This is reinforced by Laurenc (2005) who states that architecture has a close relationship with human behavior, so that the design of space can affect the activities and attitudes of its users.

Based on the study of these previous studies, it can be concluded that there is still a research gap related to the design of facilities for developing students' interests and talents that integrate the Intangible Metaphor Architecture approach with Islamic values, especially in the context of large Islamic boarding schools in Tasikmalaya. Therefore, this study aims to formulate the concept of Student Interest and Talent Facility Based on Intangible Metaphor Architecture at the Miftahul Huda Tasikmalaya Islamic Boarding School as a forum for developing the potential of students who are not only physically functional, but also spiritually and contextually meaningful.

THEORETICAL REVIEW

Islamic Boarding Schools and Holistic Education

Islamic boarding schools are Islamic educational institutions that not only function as a center for the transmission of religious knowledge, but also as a social system that shapes the character, spirituality, and lifestyle of students. Mastuhu (1994) emphasized that pesantren integrate Islamic values into daily life through habituation, discipline, and continuous social interaction. In the context of modern education, Islamic boarding schools are required to maintain Islamic identity while being adaptive to the times. Islamic boarding school education ideally leads to the formation of a whole human being, who is not only spiritually superior, but also has social abilities and practical skills. Therefore, the development of educational support facilities is an important part of creating a holistic learning environment.

Development of Students' Interests and Talents

Interests and talents are basic individual potentials that need to be developed systematically through the educational process. Ali (2013) stated that Islamic education needs to provide space for the development of students' potential in order to be able to be competitive without losing religious values. In the pesantren environment, the development of students' interests and talents can be realized through art and sports activities that are directed and have educational value. According to Magdalena et al. (2020), ideal education includes a balance of cognitive, affective, and psychomotor domains. Thus, the existence of interest and talent facilities plays a strategic role in supporting the overall education process of students, both as a non-formal learning space and as a medium for character formation, creativity, and cooperation.

Architecture, Space, and Human Behavior

Architecture has a significant influence on the behavior and experience of space users. Laurens (2005) explained that the built environment can shape patterns of activities, social interactions, and human attitudes and behaviors. In the context of education, the quality of space affects the comfort, intensity of interaction, and effectiveness of the learning process. Rapoport (1982) views architecture as a form of non-verbal communication that conveys certain values and meanings to its users. Therefore, the design of educational facilities in Islamic boarding schools needs to consider aspects of Islamic meaning and values so that

the space produced is not only functional, but also has educational and spiritual dimensions.

Intangible Architecture Metaphor in Design

Metaphorical architecture is a design approach that makes certain concepts or meanings the basis for the formation of space and building forms. Antoniades (1990) distinguishes architectural metaphors into tangible and intangible metaphors. Intangible metaphors emphasize the translation of non-physical values, ideas, and concepts into spatial orders and architectural experiences. The Intangible Metaphor Architecture approach is relevant to pesantren facilities because it is able to accommodate Islamic values implicitly without relying on religious physical symbols directly. Values such as simplicity, order, togetherness, and spirituality are realized through the processing of spatial orientation, mass patterns, circulation, and spatial atmosphere.

Islamic Values as the Conceptual Basis of Design

Islamic values are closely related to the formation of the built space and environment. Wasilah (2011) stated that the application of Islamic values in architecture affects human behavior and the quality of spatial experience. The value of the spirit of worship is reflected in the order, orientation, and simplicity of the design. The value of rahmatan lil alamin is realized through an inclusive, environmentally friendly, and sustainable design, while the value of ukhuwah is reflected in the provision of a space for social interaction that encourages togetherness while maintaining privacy.

Basic Shape and Space Efficiency

The selection of basic forms in architectural design affects the efficiency of space and the quality of the built environment. Ching (1996) explained that basic geometric shapes have characters that affect the organization of space. The hexagonal shape has the ability to be arranged in a modular manner without leaving negative space, so it is efficient in the arrangement of building mass. In addition to the functional aspect, the hexagonal shape represents order, collective work, and sustainability that are in line with Islamic values and pesantren culture.

Synthesis of Literature Review

Based on the literature review, it can be concluded that the design of the Santri Interest and Talent Facility in the pesantren environment requires an approach that not only emphasizes the functional aspect, but also the value and meaning aspect. The Intangible Architecture Approach Metaphor provides a strong conceptual foundation for translating Islamic values into contextual and educational forms of architecture. This literature review is the theoretical basis in formulating the concept of designing facilities for the interests and talents of students based on Islamic values that are in accordance with the context of Islamic boarding schools.

METHODOLOGY

The research on the design of the Student Interest and Talent Facility Based on Intangible Metaphor Architecture at the Miftahul Huda Islamic Boarding School Tasikmalaya uses a descriptive-qualitative method with an architectural design approach. This method describes the stages of systematic design starting from the formulation of ideas, identification and formulation of problems, data collection, analysis, synthesis, to the formulation of design concepts. The design process is not linear, but allows for feedback between stages so that the resulting design is in accordance with the context of the function, meaning, and character of student activities. This approach places architecture as a medium of communication of the meaning and experience of space, just as architecture is understood as a form of non-verbal communication between space and its users (Rapoport, 1982).

The analysis stage was carried out by examining primary and secondary data obtained through field observations, interviews, and literature studies. Field data on the physical condition, activities of students, and the environment of the pesantren were analyzed and compared with architectural theories, especially related to metaphors, spatial meaning, and human behavior. This analysis uses analogue design strategies as one of the metaphorical methods in architectural design, the abstract character of the activities and values of the pesantren are translated into interior design principles (Broadbent, 1973; Ching, 1996).

The synthesis and design stages are carried out by applying the Intangible Metaphor approach through adoption and analogy strategies. This adoption strategy refers to the theory of metaphorical transformation put forward by Antoniades, which is the process of transferring meaning from one abstract object or concept into a new architectural form (Antoniades, 1990). The result of the synthesis in the form of a spatial theme is then developed into a complete and harmonious design concept, where the theme plays a role as the basis for thinking and acting in the architectural design process (Tjahyono, 2001). This concept is then translated into the physical form of design through the processing of interior design elements and principles in order to be able to reflect the activity process and the development of students' interests and talents in the Islamic boarding school environment.

RESULTS AND DISCUSSION

The Concept of Intangible Architecture Metaphor in Design

The design of the Student Interest and Talent Facility at the Miftahul Huda Tasikmalaya Islamic Boarding School is based on the Metaphor Intangible Architecture approach, which is a design method that translates non-physical values in the form of Islamic ideas, concepts, and principles into architectural forms. This approach does not explicitly emphasize physical symbols, but rather cultivates the essence of Islamic values into spatial order, form, and spatial experience. The main values that are the basis of metaphors in this design include the spirit of worship, rahmatan lil alamin, and ukhuwah (brotherhood). These three values are integrated into the design concept as a system that is

interconnected, so as to create an educational, inclusive, and sustainable environment.

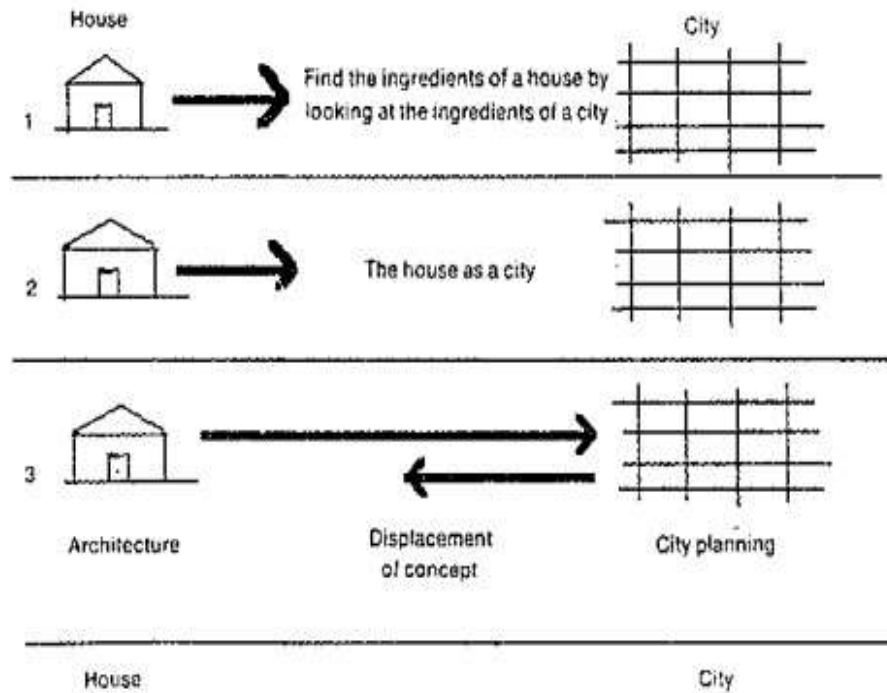


Figure. 1 The Concept of Intangible Architecture Metaphor in Design

Application of Islamic Values in the Formation of Form and Space

The application of Islamic values in design is carried out through the transformation of abstract metaphors into the principles of design of form and space. The spirit of worship is manifested through the mass pattern of the building that is focused on one main orientation, reflecting the unity of purpose and order. The spirit of rahmatan lil alamin is realized through the openness of space, flexibility of function, and the selection of materials and colors that are in harmony with the environment. Meanwhile, the value of ukhuwah is applied through the provision of social interaction spaces that still pay attention to the limits of user privacy. A summary of the application of Islamic metaphorical values in design can be seen in the following table.

Table 1. Results of interpretation of Islamic values

Ye s	The Value of Metaphors	Design Implementation	Islamic Values
1	Spirit of Worship	Space and time are concentrated on a single destination point. Design aesthetics arise by reminding people of orderly beauty, unity of form, and the interconnectedness of activities with the surrounding environment. Efficient in space management with adaptive design and attention to area.	Efficient, Aesthetic Qibla Regularity, modesty
2	<i>Spirit Rahmatan lil Alamin</i>	This use of regional patterns and time forms combines various activities in an interesting way. The materials and colors chosen reflect the harmonious interconnectedness between humans and the environment. System maintenance is carried out efficiently. He also pays attention to purity in order to maintain cleanliness.	<i>Rahmatan lil Alamin</i> Sustainable Clean, healthy and comfortable
3	Spirit of Brotherhood / Ukhuwah	The applied design supports maximum interaction, while maintaining the boundaries of privacy between men and women.	Friendship and privacy

Source: Author Analysis, 2025

Basic Shape Analysis and Hexagonal Shape Selection

The basic form of the design is determined based on the principles of space efficiency and aesthetics. The hexagonal shape was chosen because it is able to form modules that fill each other without leaving negative space, so it is efficient in the arrangement of building masses. In addition, the hexagonal shape has a philosophical connection to nature, which is implicitly reflected in the concept of the honeycomb as mentioned in Surah An-Nahl verses 68–69.

The hexagonal shape in this design is not interpreted solely symbolically, but as a representation of order, collective work, and sustainability, which is in line with Islamic values and Islamic boarding school culture.

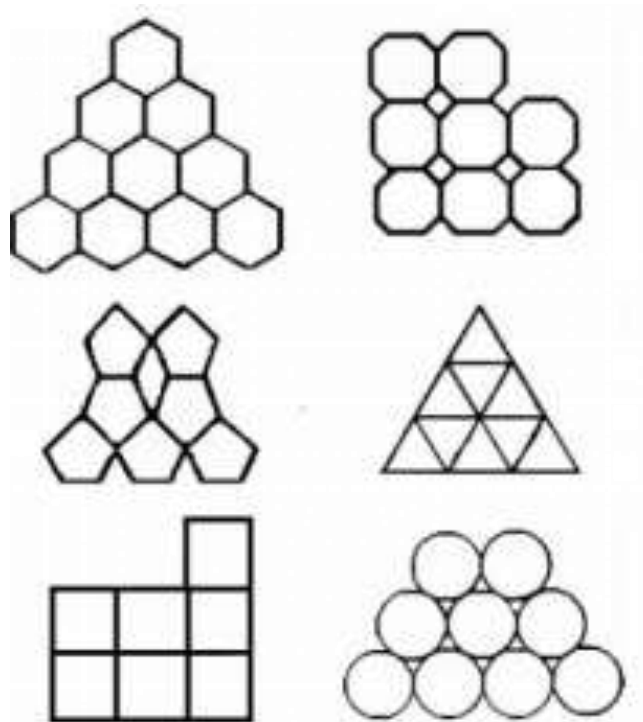


Figure. 2 Basic Shape Analysis and Hexagonal Shape Selection

Precedent for the Application of Hexagonal Shapes in Education Buildings

As a reinforcement of the concept, this design refers to the precedent of educational buildings that apply hexagonal modules, one of which is Sanhuan Kindergarten in Jiangsu, China. The building utilizes hexagonal modules to create a flexible, integrated learning space that encourages social interaction. This approach is relevant to the concept of facilities for students' interests and talents which demand an adaptive space for educational activities, competitions, and entertainment.



Source: <https://www.archdaily.com/887112/sanhuan-kindergarten>

Figure 3. Sanhuan Kindergarten in Jiangsu, China

Analysis of Facility Functions and Activities

The Santri Interest and Talent Facility is designed to accommodate educational activities, skill development, and recreational activities based on Islamic values. Building functions are classified into primary, secondary, and supporting functions. The primary function acts as a center for learning and development of Islamic arts and sports, the secondary function supports non-formal da'wah and recreational activities, while the supporting function ensures the sustainability of regional operations.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the researches that have been carried out, it can be concluded that the Intangible Metaphor Architecture approach can be an effective conceptual foundation in designing the Student Interest and Talent Facility at the Miftahul Huda Tasikmalaya Islamic Boarding School. This approach allows Islamic non-physical values such as the spirit of worship, rahmatan lil alamin, and ukhuwah to be translated into meaningful spatial spaces, forms, and architectural experiences. The application of metaphors is not realized through explicit physical symbols, but through the processing of spatial orientation, building mass patterns, functional flexibility, and the arrangement of a balanced interaction space between togetherness and privacy. The selection of a hexagonal basic shape also supports space efficiency, order, and sustainability principles that are in line with Islamic values and the character of pesantren life. Thus, the design of this facility not only serves as a forum for the development of art and sports for students, but also as a medium for character formation, spirituality, and holistic social interaction in the Islamic boarding school environment.

As a suggestion, the design of facilities for students' interests and talents in the future is expected to be continued at the stage of developing technical design and feasibility studies so that it can be realized optimally. In addition, the Intangible Architecture Metaphor approach can be further studied in the context of other Islamic boarding schools with different characters and cultures in order to enrich the treasures of architectural design methods based on Islamic values and meanings.

FURTHER STUDY

Future research is recommended to explore the application of intangible metaphor architecture in a broader range of educational and religious facilities, as well as to evaluate its impact on students' psychological comfort, creativity, and character development within Islamic boarding school environments.

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