Place attachment in supporting the preservation of religious historical built environment

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Abstract. The place attachment theory is a scientific part of the relationship between human behavior and built environment study. The built environment study explains the existence of a building and its landscape. The place attachment theory has been used in studying the relationship between human behavior with a religious and historic environment during its development. However, nowadays, this research rarely conducted and often carried out partially. As a consequence, the result analysis is only partially. This study proposed a holistically place attachment to provide a broader discourse in examining the relationship between human behavior and the built environment holistically. Moreover, place attachment theory will be used to preserve the historical religious built environment. In addition, the literature review from the previous studies and discussion methods are essential to support the research. The result shows that there is an opportunity to conduct a study of place attachment theory in supporting the preservation of the historical religious built environment. Thus, the holistic result can be obtained using the place attachment theory, which is the combination of place identity, place dependence, place affect, and place social bonding.

1. Introduction

Nowadays, the study of human relations with the built environment is quite popular. This study has been studied from various theories and produced lots of new theories. The place attachment theory is one of the essential theories in learning the reciprocal relationship between humans and the built environment. The place attachment theory emphasis more on the human side and has developed rapidly from 1992 until now [1-3] and has been applied to other disciplines; psychology, social, anthropology, geography, architecture, urban and others [4-8]. Furthermore, it is unexpectedly that researchers from other disciplines, such as psychology, social, landscape, geography, and an urban used this theory more than a researcher from architecture. Thus, it can be concluded that only a few developments in architecture which use place attachment theory. Moreover, most of the research on the architectural side applied this theory in a basic building.

The built environment in the form of architectural works not only acts as physical use but also as cultural elements [9]. Architectural work is the most concrete embodiment as a part of physical culture that is real such as objects and buildings [10]. Therefore, preserving architectural works is crucial because of the cultural element in each object or buildings. Moreover, the preservation of a religious-
historical built environment is the other way for the community to indicate the traces of their identity and culture, which is a differentiator from other communities. This paper proposed a literature review in order to obtain the current development of place attachment theory. Place attachment theory is a promising theory to analyses future works, such as supporting the preservation of the religious historical built environment to obtain a better result.

Section II describes the research method to obtain the data for the literature review. Section III describes the place attachment theory, place identity, place dependence, place affect, and place social bonding. Furthermore, the research about historical building using place attachment theory is explained in Section III. Finally, Section IV outlines the conclusion of place attachment theory using holistically place attachment.

2. Research method
The literature research will be conducted in this paper to produce the discursive prose. Various literature from textbooks, reputable journals, and proceedings of an international seminar about place attachment is used to obtain the data. Furthermore, the data are analyzed and compiled to support the proposed study. As a result, the expected result is obtained from the synthetization and discussion of each data.

3. Results and discussion
John Bowlby has been introduced the basic theory of attachment in 1958-1962. In his classic paper, he used themes such as the child’s natural attachment to his mother, the anxiety about separation, lamentation, and sorrow in infants and early childhood. These papers start with ethology, psychological information processes, psychological development, and psychoanalysts as a concept [11]. In its development, Maria Ainsworth found an innovative methodology to make Bowlby’s attachment theory empirically tested, able to develop and replicate by other researchers in examining the mental attachment (psychological) of humans to individuals or groups [11].

3.1. Place attachment theory
The place attachment theory is developed from the attachment theory applied by Schumaker & Taylor in 1983 by binding humans and their environment [3]. Schumaker & Taylor emphasize the importance of social and physical places’ influence in discovering the behavioral and cognitive components. This research is known as the first model of place attachment theory. The second model of place attachment theory was introduced by Altman and Low in 1992. This model shows that place attachments consist of various places, actors (people), and psychological processes. However, Altman & Low shows that this model (P-P-P) cannot be separated (bounding).

Since place attachment theory was introduced by Schumaker & Taylor and Altman & Low, this theory is booming. The place attachment theory and its application in research have been extensively studied in various disciplines and received much attention in recent years [2,3,6]. However, the study in place attachment theory still partially and independently. In 2010, Scannell and Gifford introduced a new model of place attachment theory, which is a development of the model proposed by Altman and Low.

In 2010, through the perspective of environmental psychology, Scannell & Gifford developed place attachment theory using the framework of tripartite organizations from the Man-Process-Place dimension in a holistic unity as a proposed method in studying humans and their environment. The model by Scannell & Gifford was the compilation of many studies conducted by some researchers, which is exploring the place attachment theory and its application.

3.2. Place identity, place dependence, place affect and place social bonding
As stated in Section 3.1, place attachment theory tends to be closer to humans. However, Proshanky in 1974, with a background in environmental psychology, introduced a place identity theory with more attention to the physical environment. This theory is also one of the dominant theories besides the place attachment theory.
Proshanky was the first to elaborate on the concept of place identity that revealed a feeling of attachment to a place, an object in the built environment, and aesthetic preferences [2]. Sometimes, place identity is considered a place attachment component [12,13]. However, Jorgensen & Stedman assumed that place attachment and place identity are two different factors from multidimensional construction [14]. Other researchers also manage that place attachment and place identity is a separated construction [7,15].

During its development, some researchers align place identity linear with place attachment theory. Sometimes, it is also included as part of the place attachment theory. Furthermore, place attachment refers to the emotional bonding to a place, whereas place identity is defined as the contribution of place attributes to one's self-concept. Later on, the place attachment theory is developing with the emergence of place identity theory and place dependence theory [16,17]. The latest development of place attachment theory has a sub-theory; place identity, place dependence, place affect, and place social bonding. Some researchers also combine sub-theory to analyze the built environment [18,19].

Furthermore, place identity is interpreted as the identity of a place in the form of a sub-structure of self-identity. It contains; memory, ideas, feelings, attitudes, values, preferences, meanings and concepts of behavior, and experiences related to the diversity and complexity of physical settings as depicted in Figure 1. This sub-structure is determining human existence in everyday life. Moreover, this concept emphasizes the role of place in the organization of memory and stimulus for human expression.

**Figure 1.** Place identity.

Place dependence is a perceived association between humans and their environment, especially place. Dependence appears when the human who is located in a place feels that the available space is fulfilled their needs compared to other alternatives spaces. The illustration of place dependence is shown in Figure 2.

**Figure 2.** Place dependence.

Place affect contains explicit emotional content and affective relationships between people and places beyond cognition, preference, or judgment which depicted in Figure 3. Place affect can also create a feeling of well-being and security that someone takes from somewhere [20]. Furthermore, place affect involves the interaction of influence and emotions, knowledge and beliefs, and behavior and actions in...
relation to a place. As people's experiences with places become deeper and more diverse, affective attachments also grow over time [1].

![Figure 3. Place affect.](image)

Place social bonding is defined as social bond encompassing two levels of meaning: (1) the strength of social relations between individuals and places, and (2) the feeling of individuals having a place as depicted in Figure 4. Place social bonding is also a social bond that refers to social relations between; individuals and individuals, individuals and communities, as well as individuals and culture [1]. This bond can cause intense emotional bonds, and these emotions are often the product of repeated interactions and experiences that result in deeper attachments [20].

![Figure 4. Place social bonding.](image)

Thus, place identity is based on cognitive components, place dependence is based on connotative components, place affect is based on affective components, and place social bonding is based on social components [20].

It can be concluded that the place attachment theory can be described using sub-theories; place identity, place dependence, place affect and place social bonding. Moreover, it is believed that these sub-theories can be combined to examine human relationships with the built environment (interior-architecture) holistically to get a better result. The place attachment sub-framework is depicted in Figure 5.

3.3. Place attachment research on historic buildings

Place attachment theory is rarely used in studying religious places [21]. It is proven only a few researchers are interested and did the research in religious center cities such as; Mecca, Jerusalem, several mosques in Malaysia, and others [21-25]. This condition leads to the opportunity to place attachments in studying the form of the built environment, especially historic religious buildings and their reinforcing factors. In addition, the research methods used in place attachment studies are qualitative, quantitative, and a combination of both (triangulation) methods [3].
4. Conclusion
The literature studies are needed to facilitate the researchers in conducting the research. This paper explained a literature review for place attachment theory, especially in supporting the preservation of the religious historical built environment. The data is obtained from textbooks, reputable journals, and proceedings of an international seminar. Then, the data are analyzed and compiled.

Furthermore, there are three methods can be used to analyze the place attachment theory, such as qualitative, quantitative, and triangulation methods. Nowadays, the place attachment theory is developed swiftly into several sub-theories; Place Identity, Place Dependence, Place Affect, and Place Social Bonding. However, the previous research was done separately or only a few combinations of the sub-theories, not the whole sub-theories (holistic). From the literature study, it can be concluded that using the whole theories is promising to get a better result, especially in religious historical built environment.

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