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Investigating Place Attachment Theory And Its Triggers In Historic Buildings In Different Contexts In Cairo

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ARTICLE INFO	ABSTRACT
          	While Cairo is a city with a diversity of buildings of high historical and heritage value, there is lack of awareness of this value, which often results in neglecting those buildings leaving them in a dilapidated status. This research investigates Place attachment (PA) theory and its relation to historic buildings in Cairo. The main objective is to identify the aspects that trigger the sense of attachment to these places to re-instate their value. The research utilizes questionnaires and interviews to study place attachment towards historic buildings in various communities in Cairo (Mosque of Al Sayyida Nafisa, Khanqah of Faraj Ibn Barquq, and the Basilique Notre Dame D'Heliopolis). This process aims to evaluate the needs of different categories of users and what these buildings provide for them, whether it is an economical, religious, psychological, or memorable value. The outcome of this research can be used as a guide to identify what functions are needed in heritage preservation projects to benefit different user groups and to reinstate the value of these buildings.

1. Introduction

Place attachment (PA) theory is a psychological approach that explains the type of bonds individuals develop to a specific place as defined by Scannell and Gifford [1]. It tackles the various ways in which users develop these connections, identities, and values through their regular interactions with a specific physical environment. The factors influencing PA include the users' behavior, cultural backgrounds, and the importance of the physical place within the community.

PA is closely relevant to a city such as Cairo, with its complex and rich history and wide range of unique historic buildings and areas of vibrant heritage. Not only are the residents of a specific area attached to its landmarks, but also the less common users. The source of attachment can be either personal memories or the fact that these buildings help users recognize a sense of identity.

The importance of delving into the PA theory in Architecture lies in its impact on preserving and restoring heritage sites. The strong tie between users and places can be the starting point of conserving

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a historical building because the users would be keen to protect this building. Because of this, PA can also be the solution to the contemporary conflicts between urban growth and modern development plans on one side, and heritage preservation and conservation plans on the other.

Many studies recognize historical buildings as artifacts explaining their aesthetics, historic value, and socio-cultural references of the past eras but only a few recognize the current assessment of the value of these buildings in current contexts. This research introduces a methodology to investigate the current needs of the communities in relation to these historic buildings to reassert their value within their specific contexts.

2. Literature Review

1.1 Definition of Place Attachment

Research suggests a relationship between a place attachment (PA) and the residents' attitude toward different development interventions in historic areas of Cairo; different authors, including Badawy et al, Abdelslam, and Mahdy [2-4], suggested this. PA is defined as people's emotional attachment to a particular place. This attachment it is usually formed gradually by accumulating feelings and emotions over time as well as an identified actual need/s. Studies have shown that historic areas of Cairo can be a significant source of the factors that formulate cultural identity, sense of place, and social community as per Aziz [5]. This is due to the complexity and diversity of different forms of interactions in between users as well as between users and historic buildings, which results in profound psychological effects for the users.

It is believed that there are many similarities in how humans are attached to others or places. In both cases, proximity is an essential factor; if the attachment is positive, it gives a sense of comfort and safety. However, as opposed to interpersonal attachment, "PA theory needs more research on the existence and nature of negatively valenced person-place bonds" (Scannell and Gifford).

1.2 Tying between Place Attachment and community

Place attachment plays a crucial role in community development, particularly in contexts involving historic buildings and urban revitalization. The connection between individuals and specific places, as detailed in the study by Plunkett *et al.* [6], extends beyond personal sentiment, influencing collective behavior and social capital within communities. When residents develop a strong attachment to a place, they are more likely to engage in actions that protect and improve their environment, contributing to community development efforts. This attachment can lead to increased participation in community mobilization and collective action, which are essential for successful revitalization projects. In the context of historic buildings in Cairo, understanding the triggers of place attachment could enhance efforts to preserve these sites by leveraging the strong emotional and cultural ties residents have to these locations. Thus, place attachment not only fosters a sense of belonging and identity but also serves as a foundation for community-driven development initiatives (Plunkett *et al.*).

Moreover, place attachment contributes to community well-being by creating a sense of stability, security, and pride among residents. This, in turn, leads to increased participation in community activities and a greater willingness to invest in the maintenance and enhancement of the local environment. The research emphasizes that communities with high levels of place attachment are more resilient and better equipped to face challenges such as urbanization and gentrification, which can threaten the integrity of historic sites as elaborated by Rollero and De Piccoli [7]. By understanding and harnessing the triggers of place attachment in different contexts, such as those found in Cairo's historic buildings, urban planners and policymakers can develop more effective strategies for community development that not only preserve these culturally significant sites but also enhance the overall quality of life for residents.

1.3 Humanistic Approach in Architectural Interventions (a literature review)

In any new architectural intervention in a historic area, research by Mahdy [4] confirms that locals' attitudes must be studied as part of the planning process. Abdelslam [3] also recommends a sensitive, humanistic approach in the case of interventions in historical areas. Therefore, integrating a conservation plan with the community is recommended to reach a common goal. This process is mostly skipped or lightly dealt with during feasibility studies causing a disengagement between the rehabilitation, adaptive reuse, and upgrading plans and the real needs of the community. Introducing a clear methodology will allow for a thorough understanding of this juncture.

One of the examples of how PA can influence decisions of modern interventions is the Heliopolis (a neighborhood east of Cairo) road development case study. In 2022, the Egyptian government applied a development plan for the main streets of several neighborhoods east of Cairo, including Heliopolis. Part of this plan was to build a bridge around the historic Basilique church, founded at the beginning of the twentieth century by Baron Empain, the founder of the Heliopolis neighborhood as explained by Metwali [8]. Because of how attached the residents are to their neighborhood, they did not favor this project and voiced their concerns. They protested, wrote letters to the government to voice their concerns, and resorted to social media and newsletters to raise awareness of their issue as a pressure tool. They argued that this project would harm the exposure and aesthetics of the church's building and its surroundings. They also claimed that this project would harm the heritage value of the neighborhood, as well as bring noise and air pollution to the area. Hassan and Ibrahim [9] explain that this structured objection finally led the government to stop the project and consider re-routing the planned developments. If a PA study would have been conducted for such a project, a more informative decision (and hence a plan) would have been initiated.

1.3 Key Takeaways

In conclusion, this literature review highlights the concept of place attachment and its different triggers across different users, as well as its impact on people's reactions towards new interventions. PA is defined as the emotional connection people develop with a specific place over time. Historic areas such as Cairo are a very powerful source of cultural and social identity due to the different interactions between the users and the historic sites. The review also draws a comparison between interpersonal attachment and place attachment, emphasizing the importance of proximity in fostering a sense of safety and comfort.

Furthermore, the review recommends a humanistic approach from the decision makers while dealing with renovation decisions to integrate the users' needs with the development targets to reach a common goal.

The 'Basilique bridge' case is an example of how place attachment can influence the decision-making process of modern interventions. The sense of attachment the residents have towards their neighborhoods has led to organizing protests and objections against a specific governmental development plan. Their concerns about the potential harm to the Basilique church's aesthetics, heritage value, and the overall neighborhood environment were voiced through various channels, eventually resulting in the government halting the project. This case study serves as a practical illustration of how place attachment can influence community action and shape the outcomes of development initiatives in historic areas.

Based on the literature review, the research will focus on the following aspects as key elements that need to be investigated and confirmed to identify the extent and value of PA of buildings within a community/context.

3. Problem Definition and Research Question

With the ongoing development all over the greater Cairo region, people tend to react differently towards these interventions, between being with, against, or indifferent towards the development. The most vital example of these interventions going through Cairo is the construction of new highways and flyovers in several areas.

One of the most controversial cases in the Egyptian streets now is the demolition of parts of 'The City of the Dead", Cairo's historic necropolis since the time of the Mamluk dynasty in Egypt. Even though this area is a necropolis, it has some of Egypt's most exquisite pieces of architecture in terms of scale, ornamentation, and complexity of function. The area also holds an immense cultural value, and is considered an area of prosperous built heritage. UNESCO also registers it as a World Heritage site. Since medieval times and all over the years, the area has attracted many Egyptians who came to Cairo from Upper Egypt and the Delta region to build informal settlements or use the cemeteries as residences. In the book "Architecture for the Dead: Cairo's Medieval Necropolis," El Kadi and Bonnamy [10] elaborate on the whole history of the area and discuss that the value of the area goes beyond the built heritage; it is an overlay of culture and traditions. Currently, considerable areas are being affected by these interventions to build a new road to develop the whole area from the perspective of the authorities in charge because this area is regarded as a waste area amid the Cairo metropolis.

In contrast, from the perspective of the different users of the area, they feel sorrow regarding the unique structures that are being demolished. The issue is that even though the users feel attached to such a place, they need to see their potential for preserving it. Opposingly, they feel voiceless, and these decisions are beyond their control, so they decide to cope with the change. This is opposite to the case of the 'Basilique Bridge' previously discussed, where the residents of the area were the ones who had the final voice concerning modern interventions that came under the name of development, which shows how PA can be effective in a conservation scenario. This raises the question: What elements and aspects trigger the PA of a specific community towards a specific building, and can these elements change from one context to another? How can these triggers influence the reactions toward new architectural interventions?

4. Aims and Objectives

This research aims to explore the relationship between place attachment theory and its triggers in different historical contexts in Cairo. The objectives are the following:
- Specify the elements that enhance PA to specific historic buildings in Cairo.
- Relate how these elements can vary based on the modern renovation interventions taking place in these buildings.
- Relate these triggers to the different users' needs from these buildings, including the varying visiting communities.

The research will focus on three buildings in different neighborhoods in Cairo: The Sayyida Nafisa mosque, the Khanqah of Faraj ibn Barquq, and finally, the Basilica of Notre Dame in Heliopolis. This diversity of locations is part of the methodological approach and is expected to offer a broader scope of analysis and more profound conclusions.

5. Research Hypothesis

It is expected that the qualitative analysis and comparisons of the suggested case studies will confirm and reveal nuanced factors triggering the users' attachment to specific historic places, which can include religious, historical, social, and cultural aspects. These results will provide a deeper understanding of the complexity of the place attachment to these buildings, as well as its effect, which

is expected to be related to how the users react to modern interventions in those buildings. A conclusion will be drawn to be able to evaluate the importance of each factor and determine whether place attachment and a building's perceived value are two variables that can be correlated or not.

It is also expected that the user's sense of PA may vary according to some attributes, including the demographic character, socioeconomic level, cultural background, religious beliefs, needs, and perception of what the building offers, whether its functionality or its architectural aesthetics. To achieve this, the research targets a variety of users to be able to capture a conclusion that reflects the different reasons for attachment.

Additionally, it is expected that different functions of buildings can result in a broad range of outcomes; therefore, this research will be limited to the category of historic buildings with a religious background.

6. Research Methodology and Methods

6.1 Methodology

The proposed methodology for this type of research question is qualitative to ensure a deep and comprehensive understanding of the patterns related to the research question as suggested by Hernández *et al.* [11]. This approach is chosen because qualitative methods allow for exploring complex phenomena, such as the emotional attachment of users to historic buildings, in a detailed and nuanced manner. This is why mainly interviews will be conducted to understand the reasons behind the attachment of users towards some historic buildings and what feelings these buildings trigger for their users. A semi-structured interview is designed to allow for explorations based on interviewees' different answers, backgrounds, and stories of interviewees. It was observed that users could visit the same building for entirely different reasons, which may sometimes be the opposite.

Due to the fact that the research should study the attachment of users towards different historical buildings in different locations, the study should cater to different socioeconomic backgrounds. Interviews allowed to accommodate the different cultural backgrounds of individuals put into the study. The study employs a purposive sampling strategy to select participants who have a significant connection to the historic buildings under investigation. This approach ensures that the sample includes individuals from different socioeconomic and cultural backgrounds, providing a diverse range of perspectives. Finally, all of the interviews were intended to be conducted inside the buildings themselves or in very close proximity to them to make sure that the interviewees were genuinely sharing their immediate feelings and not speaking about their experiences from memory.

This interview intends to collect data about the residents' feelings when using and visiting the buildings. Follow-up questions are also designed to understand better the reasons behind the different feelings and attitudes towards some recent interventions in the studied buildings.

6.2 Interview Design

The interview was designed to be friendly and welcoming to allow the interviewees to feel comfortable while talking about their feelings towards a specific building that holds value to them to be able to get genuine experiences, perceptions, and emotions. In addition, the interview was designed to consider the general atmosphere of the buildings, mainly because of the fact that all of the chosen buildings generally hold a religious and spiritual atmosphere. The interview was designed to include both main questions and follow-up questions to explore different aspects of the participants' experiences and attachments to the buildings:
The main questions of the interviews were the following:
1. Introduce yourself: Age, Job, Nationality, and where do you live?
2. Why do you visit this building? Or why are you present in this building?

3. How often do you visit?
4. What does this building present to you? How do you feel after your visit?

Follow-up questions were also used depending on case-by-case and included:
1. Are you visiting this building because it is a religious or historic building?
2. Is this your first visit to the building and if yes why?
3. Do you feel safe when walking in the surrounding neighborhood?
4. Do you feel any obligations towards the building?

6.3 Data Analysis

The data collected from the interviews will be analyzed using thematic analysis, a method for identifying, analyzing, and reporting patterns (themes) within the data. According to Naeem *et al.* [12], the steps involved in thematic analysis start by familiarization with data, which is transcribing the interviews, reading, and re-reading the data, and noting down initial ideas. Followed by selection of keywords, coding, reviewing themes, conceptualization through interpretations of keywords, cods and themes and finally producing the conceptual model, which is the final opportunity for analysis. Figure 1 illustrates the flow of thematic analysis as per Naeem *et al.* [12].
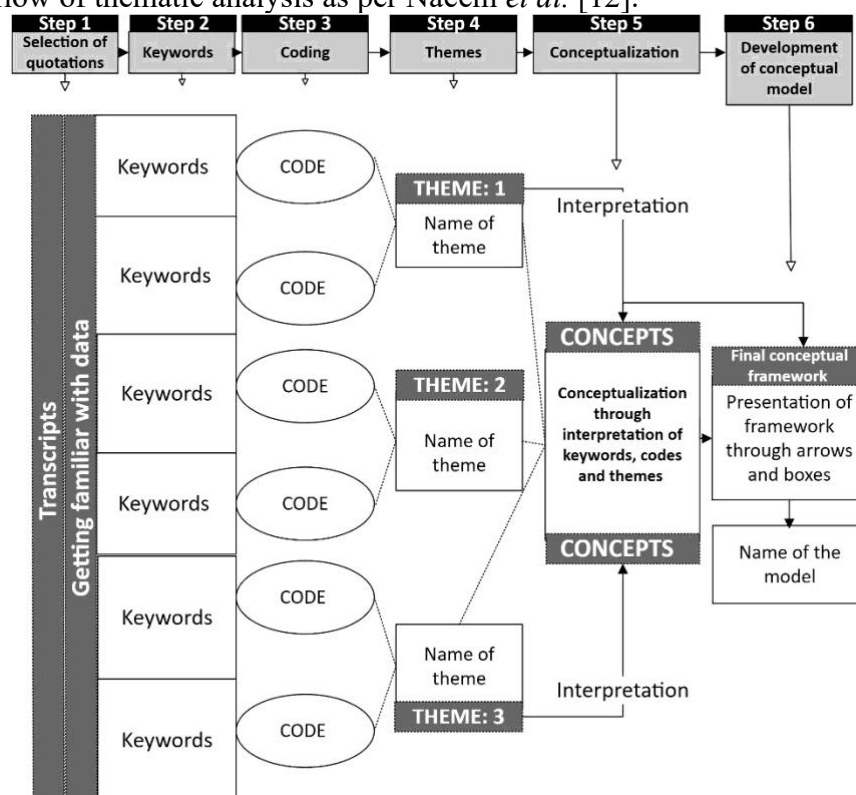
Fig. 1. The process of a thematic analysis (Naeem *et al.*)

6.4 Buildings Selection

The building selection process was based on observation of the unique characteristics of each of the sites, trying to make sure that different building typologies, although all religious, in different contexts are studied, which gives a broader and more valid scope of analysis and, therefore, a more profound discussion and more reliable conclusions. The buildings selected are Al Sayyida Nafisa Mosque and Mausoleum, Khanqah of Faraj Ibn Barquq, and the Basilica of Notre Dame. These buildings are situated in different neighborhoods in Cairo and are used by an extensive range of users.

6.4.1 Al Sayyida Nafisa Mosque, Al-Khalifa, Cairo, Egypt

Behrens-Abouseif [13] explains that this is one of Cairo's old mosques (earlier mosque renovation was conducted in 1098), and it was renovated several times. It holds a very high Islamic value as it was built over the shrine of Al Sayyida Nafisa, who is the great-granddaughter of Prophet Muhammed, and therefore, is one of 'Ahl Al Bayt,' the household and family of the Prophet Muhammed. The mosque went through several restorations and additions, and the current structure dates back to the year 1897 and was built in the Neo Mamluk style as stated on the state information service website [14]. Noshokaty [15] confirms that the most recent restoration was completed in August 2023, and the mosque was opened to the public, bringing immense happiness to Al Sayyida Nafisa's lovers.

The mosque has a vast plaza in front of it, which is widely used for several community-related functions, such as the weekly Friday market, which gathers people not only from the surrounding residential area but from different parts of Cairo. The mosque is surrounded by cemeteries and a residential neighborhood; a predominantly low-income demographic characterizes this area.

6.4.2 Khanqah of Faraj Ibn Barquq, Northern Cemetery, Cairo, Egypt

The term Khanqah was initially used to describe a mixed building typology containing several functions in addition to a mausoleum and a mosque; however, this typology is currently used as a Mosque only, and commoners no longer use the term Khanqah. The Khanqah of Faraj Ibn Barquq contains two huge mausoleums, one for the males and the other for females, including Sultan Barquq, a Mamluk sultan of Egypt, and his family, in addition to some of the Sufi Sheikhs, high rank Islamic religious scholars, who used to live at the Khanqah. All of these are not as crucial historical figures as the Sayyida Nafisa, making this building not as famous as the previous site. That is why this building was selected to be among the sites put into the study: to analyze how people feel about a building that has a very high architectural and historical value but is neglected due to the lack of awareness of these values as described by El Barmelgy [16].

The building is located in the area known as the Northern Cemetery in the City of the Dead, and this area was originally just a cemetery; however, with time and because of the housing problems in Cairo, the area started to attract informal residents who built their own residential buildings. This intervention has completely changed the area's urban fabric and brought new activities as illustrated by El Kadi and Bonnamy [10]. The area's history annotates that the residents' socioeconomic characteristics are very low income, which has led them to live informally in cemeteries, as they cannot afford to live elsewhere.

Because of the stigma that this area is mainly a cemetery, common Cairenes do not commonly visit this whole area except those who own a graveyard there. This composition has led to the fact that the visitors of historic buildings in this area, such as the Khanaqah put in the study, are people uniquely interested in it, and the interviews aim to study those aspects that interest visitors to visit this place.

6.4.3 Basilica Notre Dame, Heliopolis, Cairo, Egypt

The Basilica is one of the earliest buildings built in the neighborhood of Heliopolis at the beginning of the 20th century. It holds a very high value because of its location, grandeur, and Byzantine style, making it a unique piece of Architecture in the heart of Heliopolis. In addition to that, it contains the grave of Baron Empain, the one who built it, and the whole neighborhood of Heliopolis. The Basilica is now used by the Roman Catholic Christian denomination, which gives its users an exceptional demographic character: The Roman Catholic community in Cairo is known to be one of the highest-income and best-educated communities in Cairo. They mostly come from European-rooted families that emigrated to Egypt long time ago, resided in the newly built, at the time, neighborhood of Heliopolis (which was the main concept of a new city to attract foreigners), and became now very

well established families. In addition, the unique atmosphere around the Basilica is derived from its location: It is situated a few meters away from Egypt's presidential palace, Al Ittihadiya Place, and is surrounded by many commercial venues, including a jewelry market, which also explains the high-income users of the building as explained by Eldaidamony *et al.* [17]

6.4.4 Selected buildings: Commonalities and differences

To be able to get a broader scope of research, the site selection considered choosing buildings that have some common factors to make the study relevant and comparable and simultaneously have a diversity in many other factors. The three chosen buildings are all religious buildings that are still, fully or partially, functioning as places of worship, in addition to having a mausoleum or grave attached to them. Moreover, all three buildings are relatively large in scale and hold remarkable footprints in their urban fabric.

On the other hand, the selected sites also vary in many factors. First, two sites are Islamic places of worship, while the third is Christian. Second, each of the buildings is located in a completely different context, with residents of different social and demographic characteristics in addition to the level of informality of the buildings' surroundings; a predominantly informal residential area surrounds site two, whereas a very well planned area surrounds site three. In addition, each building has a very different architectural style from the other two buildings. Moreover, there is a difference in the value of the buried person in the building; Sayyida Nafisa, who is one of the prophet's family, is a significant Islamic figure. In contrast, Barquq, Baron Empain, and their families are not as important religious, political, or social figures.

7 Application: Interview Data, and Discussion and Conclusion

7.1 Interview Data and Results

In total 25 samples were interviewed representing a variety of categories within the relative communities[2]. Figures 2 and 3 show the age and occupation categorizations of the interviewees in the three sites.

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[2] For site 1, fourteen people were interviewed, all of whom are males because cross-gender interactions are minimal inside and around the mosque. All interviewees were Egyptians and residing in Cairo except one; he comes weekly from Ismailia Governorate only to visit the mausoleum.

As for site 2, six people were interviewed, all males except only one female (tourist); this area is very conservative, and women are not welcome to walk freely in the area or talk to strangers. The employee in the khanqah lives in Cairo, the shop owners are residents of the area, and the three tourists are from Germany.

For the third site, five interviews were conducted. This site was the first site in which there was an opportunity to interview females. All interviewees were Egyptians and were residents or previous residents Heliopolis.
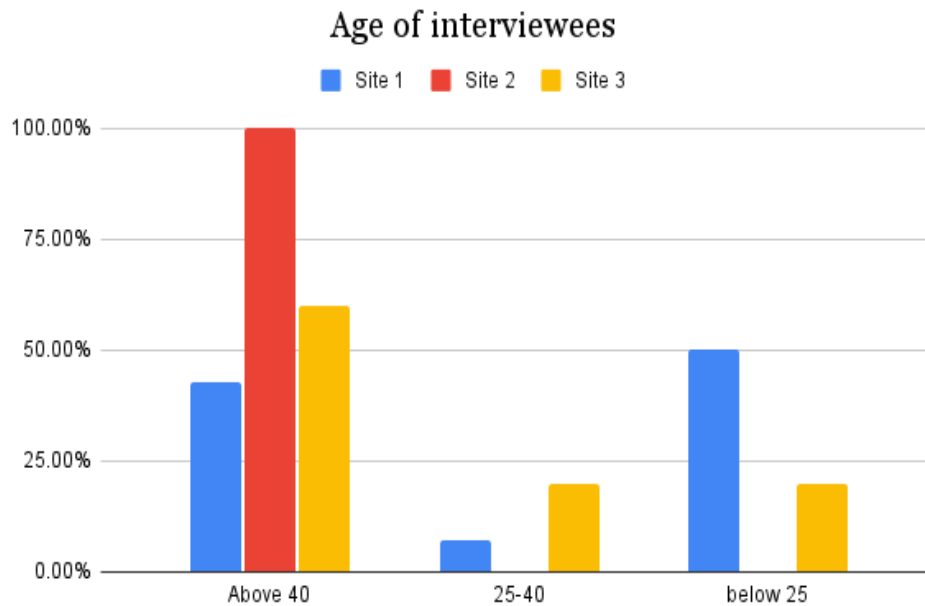
Fig. 2. Age categorization of interviewees in the three sites
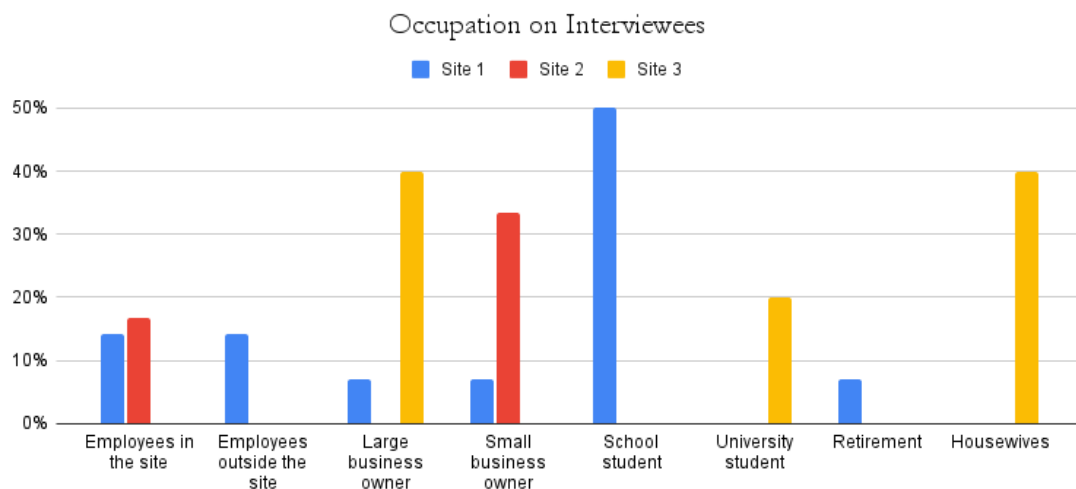
Fig. 3. Occupation categorization of the interviewees in the three sites

The results of the interviews were primarily common in every site when on its own; however, results were quite different when put to comparison with the different sites.

For the Sayyida Nafisa Mosque, all users agreed on one main reason for the visit: the spiritual and religious value of the building. However, with the follow-up questions, it was found that users visit the mosque for distinct reasons. Table 1 summarizes the answers to the different questions by different interviewees during the interview.

Table 1
Summary of Site 1 interviews of site 1 by the different users

Question	Main Answers
Reason for the visit	Spiritual recharge: Visit the mosque because they feel less stressed after spending time and attending prayers at the mosque.
	Religious obligation: Visit the shrine as a sort of showing love and gratitude to the Prophet Muhammed and his family, as well as the belief that this visit brings them blessings.
	Location of work
Opinion about recent renovations	The place had lost its essence and felt less spiritually relaxing than its older version, resulting in less frequent visits to the mosque by some of its previous constant visitors, as per the mosque's employee
	The mosque became more welcoming and feels more comfortable now, which allowed users to spend more time inside the mosque.
Frequency of visits	During low workload periods because of the unstable nature of work; giving a chance to recharge spiritually.
	Weekly visits to the mosque became a routine, even though this interviewee lives in a different governorate
	First time visiting the mosque; because he had never gotten a chance earlier. He was in a close area with his son, so he felt an obligation to show him the place and get the blessings of visiting the Sayyida Nafisa
	A group of kids, from 13 to 16 years old, explained that their school often arranges trips there, but this time, they decided to come on their own to pray, and because they like the place

Site 2's interviews went different. First, the Khanqah of Faraj Ibn Barquq does not have the same number of visitors as Sayyida Nafisa, which resulted in a much smaller number of interviews conducted. The most extended interview was conducted with the Ministry of Endowment employee who is responsible for the khanqah. He said that the khanqah attracts tourists in the first place. He added that no one actually comes to visit the graves except for a very limited amount of pilgrims, mostly from Algeria, who come not to visit the Sultan's grave, but to visit the sheiks'. Those tourists belong to the Tariqa Al Shazilia, an Islamic denomination, and believe in the very high rank of the Sheikhs buried in the Khanqah.

In addition, the employee highlighted the social function of the khanqah besides its touristic or religious values: because of its relatively quiet indoor ambiance, the Khanqah is used as a resting place for the users of the neighborhood. Moreover, the khanqah has the only vacant plot of land available for kids to have any fun activities in the whole neighborhood.

Two more interviews were conducted with two shop owners around the Khanqah, who also lived there. They both had very similar answers; for them, it was just a typical mosque. They are always thrilled to see tourists visiting the mosque every now and then because it brings profit to their shops. They both agreed that the residential area holds a very solid sense of community. They also mentioned the high sense of security they feel in this area due to the continuous presence of police officers and patrol cars, the fact which leads to the presence of tourists wandering alone in the area, a fact that they see as a sign of the high sense of security.

On the other side, both of the residents mentioned a very critical point as the conversation evolved: they both feel that their existence in this area is insecure and always at risk; they see that the

government is always planning to remove their houses to transform the area into a touristic area, and they wonder why is upgrading the area to be welcoming to tourists always related to displacing them.

As for the interview with a group of three German tourists who were visiting the building on their own, not escorted by any tour guides, they mentioned that this was not their first time in the area; because they liked the area due to its artistic and architectural value. They were also asked about the sense of safety in the area, and their answer was positive. When asked about how they felt about the stigma that this a place that is basically a vast cemetery, they said that they did not mind this and that they enjoyed the place anyway; they even liked the architectural styles of some of the graveyards.

Finally, for the third site's interviews, the first interview was conducted with a shop owner facing the basilica. He is not a regular user of the basilica as a place of worship; however, he feels attached to the basilica and cares about it because it is an integral part of his daily life; it is what he sees every day on his way to and from his shop, he also said that his shop gains popularity from its physical proximity to the basilica. He added that he participated in the campaign that objected to constructing a bridge in that area, believing that the bridge's construction would harm the aesthetic value of the whole area and consequently negatively affect his shop's targeted category of customers.

The second interview was conducted with a former resident of the neighborhood of Heliopolis. He said that he actually entered the basilica only a very few times during the 40 years that he lived in Heliopolis. Nevertheless, the basilica is very dear to his heart because it is one of the only remaining unaffected buildings in the neighborhood where he was raised. He explained that for him, the basilica is more than a building of great history and Architecture. He believes that he is emotionally attached to Heliopolis and the basilica because it was one of the factors that formulated his identity.

The third interview was conducted with an Architecture student who is also a resident of Heliopolis. He said that he has always been curious about the architecture of the basilica and Heliopolis in general and how the urban planning of Heliopolis evolved over time. He visited the basilica only once, just because he was interested in exploring its interior, but not for any spiritual or religious reasons. He finds himself very lucky to be living in that area, especially after studying architecture; he started to appreciate more the architecture of, not only the basilica but its surroundings as well. He also commends the area's walkability and enjoys hanging out with his friends in the surroundings.

Finally, the last two interviews were very similar; they were conducted with two homemakers, one who currently lives in Heliopolis and the other who used to live there but not anymore. One of these interviewees is a regular church user and often engages in social activities related to the church, not only religious ones. She explained that the church community is an essential part of her social life as the church organizes various cultural and social events. For her, these secondary functions do not undervalue the importance of the church on the spiritual side. She said that she often visits the basilica when depressed as she finds the interior ambiance of the church so relaxing. The final interview was with another homemaker, who works as a freelancing marketing agent. This interview was very similar to the previous interviews; she talked about how she admires the Basilica for its unique Byzantine Architecture and significant history. For her, the basilica is mainly a place of worship whose ambiance helps her to get spiritually relieved and disconnect from her busy life.

All the interviewees of site three agreed on the same opinions regarding modern interventions. They all opposed the bridge's construction and found it harmful to the area's essence. However, they are not against having minor renovations of the basilica to maintain its unique character, but not to add or omit any of its characteristics.

7.2 Discussion

Table 2 compares the most common triggering factors in each of the three sites by extracting some main categories from the discussion and calculating the percentage of people who mentioned these triggers in their interviews.

Table 2
Summary of the triggering categories of the PA in the different sites

Triggers of PA		Sites		
		Site 1	Site 2	Site 3
Religious	Spiritual well-being	50%	0%	15%
	Religious obligations	39%	5%	0%
Architectural/ Historical value		0%	50%	38%
Financial need		11%	10%	8%
Sense of pride		0%	20%	38%
Other informal social functions		0%	15%	0%

From the previous results, it is clear that each of the three sites provides its users with a particular function, which triggers their PA towards that site as Figure 4 demonstrates. The first building, the mosque of Sayyida Nafisa, provides its users with a sense of spirituality. In contrast, the second site, Khanqah of Faraj Ibn Barquq, provides its visitors with rich historical and architectural value. For its residents, it brings them a sense of security, better income, and leisure space for the area's kids. Finally, the basilica, which is the third site, brings its users a sense of pride of their neighborhood and its history, so it has become an integral part of their identity.
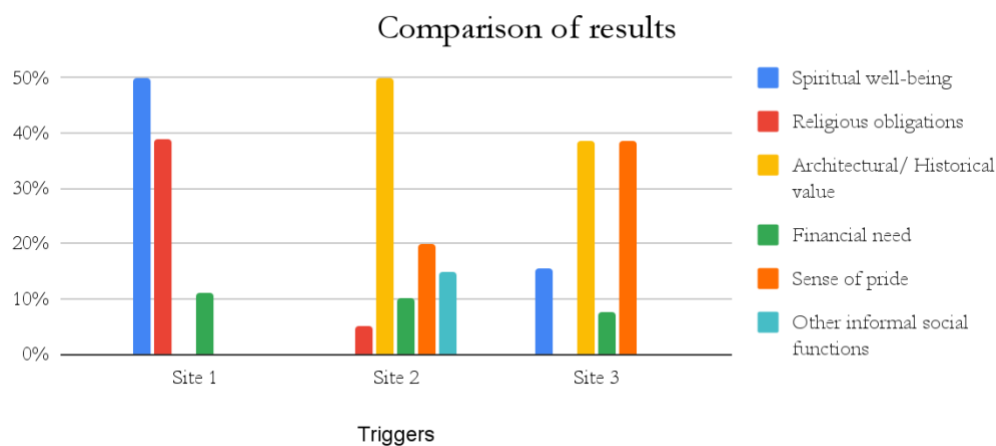
Fig. 4. Comparison of the different categories that trigger PA in each site

However, by digging deeper into the interviews and the interviewees' responses, it can be observed that some people often have different definitions of what they get from visiting a place. For example, all of the interviewees mentioned that what they get from the Sayyida Nafisa mosque is the spiritual value; however, some of them define spirituality as the instant feeling of spiritual well-being and better mood they get while and after the visit, whereas others, spirituality meant the sense of obligation they have towards visiting this holy place of Ahl Al Bayt which gives them a sense of inner satisfaction and accomplishment.

As for the question of people's reaction towards the intervention, the answer also provides different insights on what elements or aspects of a specific building trigger the user to feel what they usually feel in a specific context. The answers can be categorized under two umbrellas: one category agrees with the renovations because the mosque became more usable, whereas the other category believes

that the mosque lost its essence after the renovation. This indicates that some people are only concerned with the function of the mosque as it contains the mausoleum of Sayyida Nafisa. Now, the mosque has more seating space in its courtyard, which allows these users to spend much more time in the mosque and enhances the quality of time spent in the mosque with the Sayyida Nafisa, so they believe that these renovations have helped them achieve their intended goal more comfortably with a better overall experience.

On the opposing side, the other category is more concerned with what they call the "essence" of the place. They definitely agree with the same general function of the building as a mosque and shrine, but they believe that this function cannot only be achieved by looking at the functionality of the mosque and how they spend time in it. They are also psychologically attached to some of the aesthetic aspects of the building that help them connect to it and get the feelings of relaxation or relief they claim they feel after visiting the mosque. This comparison tries to reach a balanced equation between what is actually needed while making decisions on any intervention in a historical context, which is the debate between two aspects: Functionality VS Aesthetics.

7.4 Conclusion

From the previous discussion, it was proved that the users of each building have a unique sense of attachment to these buildings, which concurs with the PA theory. Even though the triggering aspects of PA might have varying weights in each of the three different sites, a list of seven common aspects can be concluded from Figure 4 and the previous discussion. These aspects are shown in Figure 5, arranged by order from most to least effectual. They are as follows: Spiritual well-being, Architectural/ Historical value, Religious obligations, Sense of pride, and financial need, in addition to other informal social functions that can include place affordability or calmness. Figure 5 demonstrates the overall comparison of the seven common triggers all over the sites.

Main triggers

- Other informal social functions 3.7%
- Financial need 17.1%
- Sense of pride 9.8%
- Religious obligations 24.4%
- Spiritual well-being 26.8%
- Architectural/ Historical value 18.3%
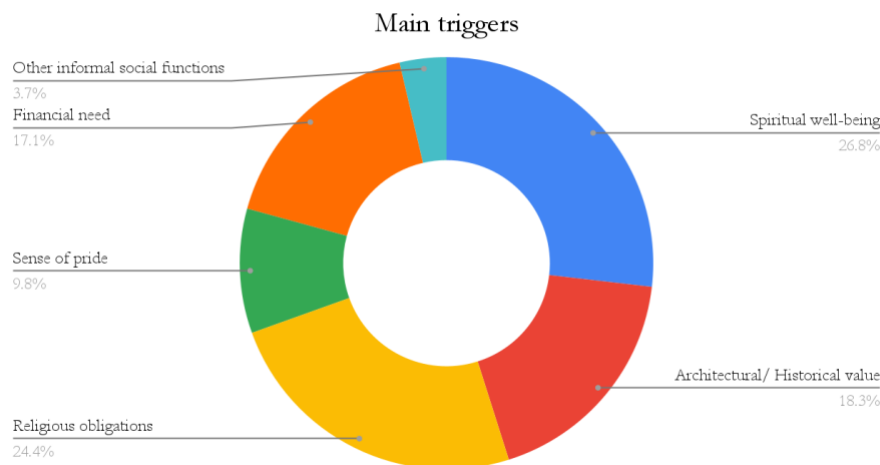
Fig. 5. Main common triggers of PA

As for the debate of renovation of historic buildings, it can be concluded that the renovation process must balance between the two main factors that concern the users, which are to make the building more functional and to keep the essence of the building. This debate especially increases in historic contexts, because users form higher levels of PA in such contexts as previously discussed. The results suggest that balancing both factors is the key to satisfying most users. Functionality and aesthetics are two aspects that must not be opposed; they must complement each other.

Finally, a relation can be drawn between the triggers of PA and the people's reactions toward architectural interventions. Users' main concern when judging any renovation is maintaining what they

define as "the essence" of the place, which is a very variable statement. However, this essence is usually defined by what aspects trigger this attachment. Figure 6 shows how users unintentionally define the essence of the place based on what triggers PA for them.

Site ➡ Triggers ➡ Place attachment ➡ Definition of essence

Fig. 6. Relation between triggers of PA and definition of "essence"

From the previous observations, a framework can be formulated to help decision and policy makers in designing sensitive interventions in historical places. By investigating, what aspect of a specific site triggers its users PA towards that site, its essence can be identified, and preserving it would result in more sensitive and users oriented interventions.

As for the limitations of this study, the sampling size and selection biases could be one of the factors. The people selected for the interviews are not a fair representation of the whole population because cultural and social considerations can limit the targeted users that participate in the interview, such as women, which may limit the conclusions derived.

The study is also very culturally specific because it studies the trends of PA in Cairo, which is a precise setting, making the results difficult to generalize to other areas or cultures.

The limitations related to the methodology of research on the PA theory are caused by the fact that PA can be measured using different scales of measurements in addition to using different focal points, either on behaviors, feelings, or beliefs, even though all studies have a similar definition of the PA theory. PA can sometimes be mixed up with the quality of life of some users in a particular place, which differs from PA as elaborated by Hernández *et al.* [11].

Due to the fact that the study was completed in a relatively short period, it is possible that the study missed shifts in people's affinities for historic structures throughout time. The stability of place attachment may depend on the chronological context, and the results of the study might only apply to a particular time frame.

This study has very significant implications regarding architectural projects and interventions in historical contexts. Understanding PA's triggering characteristics and their relative values can help in guiding community engagement programs. Policymakers can also use it to develop a sense of belonging and encourage participation among residents of historic areas in the decision-making of development projects. Recognizing the factors that lead to place attachment may impact community and social cohesion, which can be strengthened by strategies that aim to increase citizens' commitment to historic structures.

Recognizing the variables that promote place attachment can aid in developing projects that attract tourists and visitors while respecting local communities' attachment to their historic environment. This study can be used in tourism development in historically rich areas in Cairo, such as the three sites used in this analysis. The findings could have an impact on awareness programs that attempt to raise knowledge about the cultural and historical significance of historic buildings. In addition, it can establish marketing and branding initiatives, highlighting their locations' distinct historical identities, and what assets they have that can meet the triggering aspects of PA.

The study may also highlight the importance of historic structures in safeguarding cultural identity. Preservation efforts might be directed not only at the physically built heritage but also at the intangible cultural assets embedded in these locations. The research findings could inspire preservation practices by emphasizing the need to consider inhabitants' attachment to historic structures while designing functional spaces in their projects. This knowledge may help to promote more sustainable and culturally responsive development practices.

The study may propose future research directions, such as evaluating the influence of different styles of Architectural interventions on place attachment or investigating variations in attachment across different demographic groups within the community.

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