

Humanitarian Architecture: Examining the Perspective of Architecture Faculties and Students

Yenny Rahmayati ^{1*}, Haya Alshammari²

¹Assistant Professor, Architecture Department, College of Architecture and Design
Prince Sultan University Saudi Arabia

²Architecture Department, College of Architecture and Design Prince Sultan University Saudi Arabia
***Corresponding author:** yrahmayati@psu.edu.sa

Received: December 28, 2023

Approved: January 3, 2024

Abstract

The frequency of natural disasters keeps increasing from time to time. The catastrophes from the events affect millions of people around the world. It demands the involvement of architects in the design and planning difficulties associated with rebuilding post-disaster areas and cities. However, there is a continuing lack of architects who are capable of handling the damage left behind by devastating natural disasters like floods, fires, earthquakes, typhoons, and tsunamis. In addition, there is a shortage of architectural students who are interested in this crucial matter. Targeting architecture faculties and students, this study discusses the architects' role in the humanitarian subject. The objective is to figure out the level of awareness and exposure to this topic at the higher education level. It was done by examining the involvement of architecture faculties and students in humanitarian architecture through mixed qualitative and quantitative methods. This study proposes a way to shed light on humanitarian architecture to alert architecture faculties and students to the growing need for help and support in reconstructing communities damaged by catastrophes. It also provides an understanding of how to offer assistance while respecting the culture, identity, and needs of the affected people.

Keywords: *humanitarian architecture, disasters, disaster recovery, architecture faculties, architecture students*

1. Introduction

The frequency of natural disasters around the world keeps increasing not to mention the number of humanitarian crises such as wars and conflicts. The catastrophes resulting from the events affect millions of people globally. Architects' involvement in this case becomes crucial, especially in the design and planning difficulties associated with rebuilding post-disaster areas and cities. However, there is a continuing shortage of architects who are capable of handling the damage left behind by devastating crises and disasters like floods, fires, earthquakes, typhoons, tsunamis, wars, and conflicts. This was rooted in higher education level due to the lack of architectural students who were interested in this field. Introducing the topic of humanitarian architecture in architectural studies is the key to answering this challenge.

It was traditionally believed that architecture served society's higher class. However, Architecture that addresses humanitarian needs serves as a stimulus for community improvement and facilitating disaster recovery. Many architects have worked in humanitarian actions to support the less fortunate throughout history. The economic, environmental, and social well-being of society are greatly enhanced by such activities. Professional architects, faculties, and students of architecture must pay special attention to creating buildings and residences that address humanitarian challenges and contribute to the best possible reconstruction of their communities.

This study discusses the role of architects in humanitarian action from the perspectives of architecture faculties and students. The objective is to figure out the level of awareness and exposure to this topic in architecture schools. It was done by examining the involvement of architecture faculties and students in humanitarian architecture through mixed qualitative and quantitative methods. A way to shed light on humanitarian architecture to alert architecture faculties and students to the growing need for help and support in reconstructing communities damaged by natural catastrophes is proposed by this study. It also provides understanding to provide the right help while respecting the culture, identity, and needs of the affected people.

2. Literature review

It was started in the 1990s when there was a growing interest in incorporating architectural works into humanitarian actions which led to the introduction of humanitarian architecture initiated by the United Nations High Commissioner for Refugees (UNHCR) [1]. However, the terminology is then expanded to a wider aspect of humanity particularly in helping marginalized, underserved groups of society [2]. Since then, more architects and architecture students looking to apply their training and knowledge to improve society, and it is expected to see increasing interest in the topic of humanitarian architecture. Simoustantioulsy, there is a growing amount of literature on the subject as a result of researchers and practitioners looking at the numerous dimensions of humanitarian architecture and considering how it may be applied to solve social, economic, and environmental problems. The importance of community interaction and participation in the design process is one of the primary themes that emerge from the literature on humanitarian architecture.

AlSayyad and Mejia remark that humanitarian architecture is not about building but people [3]. It is about how assisting people in need by prioritizing construction, spatial arrangement, and the well-being of the users over aesthetic aspects [2]. Thus, architects must work closely with the communities for which they are developing to ensure that their requirements and preferences are met. Many other researchers, including Brawne [4], have echoed this idea, emphasizing the importance of architects listening to the people's voices who will inhabit the spaces that they design. Sustainable and environmentally friendly design techniques and sustainable technological solutions are also prominent issues in humanitarian architecture literature [5]. According to Gissen [6], humanitarian architecture must be sustainable which means that architects must think about the long-term environmental impact of their work. This includes action to use local sources and products, conserve water, and be energy efficient.

The literature also emphasizes education and public awareness of humanitarian architecture. Architects must be trained to think beyond individual buildings and to consider the broader social, economic, and environmental impacts of their work [7]. A similar idea was also raised by Idem, Jung, and Karpińska [5] who argued that community involvement in ensuring the integration of environmental and socio-economic needs to be fully addressed for the continuity of development.

This necessitates a full understanding of the numerous social and economic components that characterize the communities for which architects design, as well as current knowledge of the most recent breakthroughs and industry best practices. There are also several case studies and illustrations of humanitarian architecture in the literature. For example, Charlesworth's [8] work on disaster relief housing has received accolades for its innovative and environmentally friendly design solutions. Meanwhile, Fathy's [9] work in Egypt on sustainable architecture has also been widely cited as an example of how architecture can be utilized to address social and economic challenges. Other noteworthy case studies include the work of Alabama's Rural Studio [10], which focuses on designing and building in low-income communities, and the Architecture for Humanity organization [11], which has worked on numerous humanitarian design projects around the world. Many other scholars have also contributed to the literature on humanitarian architecture, in addition to these references such as Palleroni [12] who examines how architecture might be used to benefit society. There is also Steenbergen and de la Riva [13] who assessed architecture and urbanism in the context of growing urbanization, emphasizing the significance of engaging with local populations and understanding their demands. Furthermore, Pomeroy [14] investigates humanitarian architecture theory and practice, highlighting the relevance of contextualization, community participation, and sustainable design.

The research on humanitarian architecture and design emphasizes the numerous obstacles and opportunities that architects and architecture students encounter in this field. Architects may develop buildings and spaces that serve society in meaningful and effective ways by working closely with communities, employing sustainable design principles, and addressing the broader social, economic, and environmental effects of their work. The literature on this topic contains useful ideas and examples that can be used to guide future study and practice in this burgeoning discipline.

The Za'atari Refugee Camp in Jordan is an example of a successful humanitarian architecture project. As one of the biggest refugee camps in the world, the Za'atari Refugee Camp has been in operation since 2012. Over 80,000 refugees are currently staying at the camp, which is situated in the Jordanian desert [15]. The camp was created to give refugees who had fled their homes with little to no belongings access to essentials like food, water, shelter, and sanitary facilities. The Za'atari Refugee Camp's architecture, which was created to give migrants a sense of dignity, privacy, and security, is among its most avant-garde features. The camp is organized into districts, each of which has a market, mosque, and

community center. The community centers give migrants a place to congregate and engage in activities like sports, the arts, and education. The camp's structures are made of prefabricated steel frames covered with canvas and are sized to fit families of various sizes. The steel frames provide a strong framework that can survive the arid desert weather, while the cloth offers insulation and shade. Every shelter has a lockable front door that gives refugees a sense of privacy and protection. Additionally, the shelters are set up to provide the most ventilation and privacy possible. A centralized water supply system in the camp also offers clean water to the refugees for drinking, cooking, and cleaning.

The camp is less dependent on outside resources because of the water delivery system's efficient and ecological design. The camp offers refugees a variety of educational and employment possibilities in addition to basic requirements. The camp is home to several educational institutions for kids of all ages, as well as training facilities for trades including carpentry, hairdressing, and sewing. These kinds of activities provide refugees with a feeling of purpose and aid in their recovery from the trauma of migration. Overall, the Za'atari Refugee Camp is an excellent example of humanitarian architecture that provides refugees with a sense of dignity, privacy, and security. The camp's design is innovative and efficient and provides refugees with the necessities they need to survive. The camp also provides refugees with a sense of community and purpose, helping them to rebuild their lives after the trauma of displacement.



Figure 1. Za'atari refugee camp, Jordan
Source: Google Map (access on January 1, 2024)

3. Methodology

The purpose of this study is to understand the role of architects in the humanitarian field. It was done by examining the level of awareness and exposure to this topic among the architecture faculties and students. To accomplish this objective, a mixed-methods approach was utilized, which included surveys and interviews. The surveys aimed to collect quantitative data including demographic information such as age, educational background, and work experience. Meanwhile, in-person, over-the-phone, and online interviews were done to get qualitative data. The questions related to their motivations, sense of social responsibility, and obligation were asked in the interviews.

Moreover, problems, challenges, and opportunities as well as recommendations proposed were also identified. The goal of the interviews is to acquire a better understanding of the participants' experiences, viewpoints, and motivations as they relate to humanitarian architecture. Thematic analysis was used to discover major themes, patterns, and trends in the material acquired from the interviews. To reach a diverse

and larger audience, online social media platforms were used. Both approaches give a thorough insight into the architects' role in humanitarian architecture.

4. Findings and discussion

To investigate the involvement of architecture faculties and students in humanitarian architecture and to understand the level of their awareness and exposure to this field, 50 responses were collected from the survey and 10 interviews were carried out from the mixed-methods approaches employed for the data collecting. The majority of the respondents who participated in this study were architecture students (72%) aged between 18 to 25 while the rest 28% were architecture faculties (25 years and above). Most participants were Saudi Arabian nationals (86%) and the remaining were from other nationalities (14%).

The survey revealed that 71% of faculties and 56.8% of students were aware of humanitarian architecture. The most common way faculties became aware was through online websites (81.8%), followed by involvement in architecture firms (63.6%) and friends/colleagues (36.4%). For students, the most common way was through online websites (66.7%), followed by architecture school (52.4%) and friends/colleagues (33.3%).

However, many participants misunderstood the concept of humanitarian architecture, but 85.7% of participants believed that shedding light on this topic was important, especially to accommodate all levels of communities. Additionally, 75% of students expressed interest in learning about humanitarian architecture, and 85.5% of faculties wanted this topic to be taught in universities (Figure 2). Most faculties believed their role was related to teaching the architectural design that is appropriate for humanitarian needs, while students believed their role was to learn about this topic to spread knowledge.

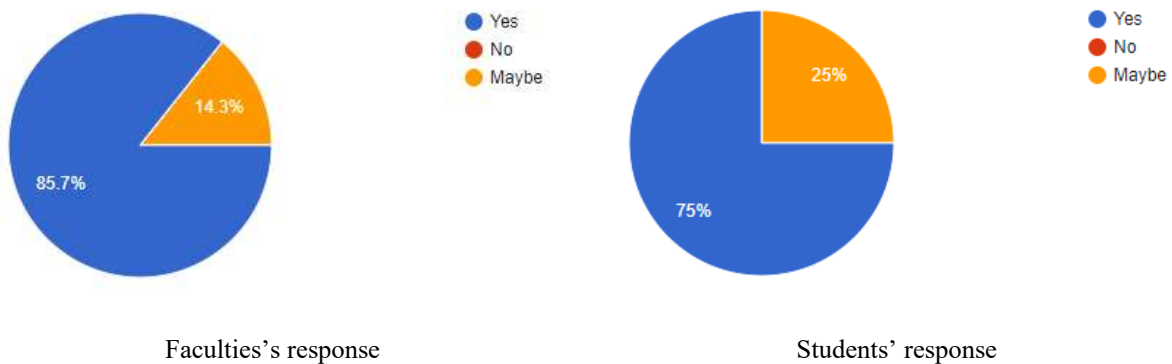


Figure 2. Interest in teaching and learning humanitarian architecture

The majority of participants realized they could help affected communities remotely, and 74.3% of students and 84.6% of faculties expressed interest in participating in a humanitarian architecture project. Moreover, faculties believed that having conferences about the topic was the best way to shed light on it, while students believed dedicating a course to this topic in the study plan was the best approach.

Furthermore, findings from the interviews confirmed the familiarity of the humanitarian architecture among architecture faculties and students. Many participants expressed a strong sense of social responsibility and felt obligated to contribute to society by addressing pressing social issues with their expertise. Most of the participants want to participate in humanitarian architecture projects to feel better about themselves and to create a better world. According to the interviews, the main motivator for their involvement in this field was an intention to make a beneficial impact on society and to use their skills to help those in need which is certainly a commendable appeal. These emotions and excitement are necessary to effectively collaborate with communities and stakeholders, understand their needs, and design appropriate solutions.

However, the interviews also highlighted difficulties that might be faced by faculties and students involved in the humanitarian architecture field. One of the most significant challenges was a lack of money and resources for humanitarian architecture projects. The participants felt that this fact has limited their ability to make a real difference and they needed more support to carry out their work effectively. They

also highlight the need for ongoing research and support in this field to better understand the challenges and opportunities, and to develop effective solutions that meet the needs of communities and stakeholders.

Another issue raised was the complexity and often unpredictability of humanitarian crises and emergencies. Responding to humanitarian disasters necessitates a thorough awareness of the local context as well as the ability to quickly adjust to changing conditions. This can be difficult for faculties and architecture students who have never worked or have limited work experience in these environments. Despite these obstacles, the participants remained dedicated to the purpose and expressed a strong desire to continue making a difference in supporting humanitarian architecture. They underlined the importance of collaboration and partnerships with other stakeholders, such as governments, non-governmental organizations (NGOs), and local communities to ensure that their work is successful, sustainable, and responsive to the needs of those affected by humanitarian crises.

5. Conclusion and recommendation

This study discusses humanitarian architecture from the perspective of architecture faculties and students. Their role, involvement, motivation, and challenges were investigated. The levels of awareness in this field both from faculties and students are high. The sense of social responsibility and desire to make positive impacts on society through their skills are also strong. They understand their important role in solving societal challenges through humanitarian architecture. The students expressed their interest in this field and believed that learning about this topic to spread knowledge is one of the roles. Meanwhile, the faculties also showed their passion for teaching this topic. They understand their role in university will have a huge impact in practical and professional fields outside the educational institutions.

Despite challenges discovered from this study particularly the lack of funding and resources for humanitarian architecture projects as well as the complexity and unpredictability of humanitarian emergencies, however, this study confirms there is dedication that comes from architecture schools, particularly the faculties and students. This proves that humanitarian architecture is a critical topic to address in higher education institutions where young professionals are trained [16]. The best approach for addressing it is for universities to include it in the curriculum and make it a mandatory course. Moreover, organizing more academic conferences related to humanitarian architecture is also one of the effective ways to spread knowledge on humanitarian architecture.

Furthermore, collaboration and partnerships with other stakeholders, such as governments, NGOs, and local communities, were seen as crucial to ensure that their work is successful, sustainable, and responsive to the needs of those affected by humanitarian crises. In addition, there is a need for ongoing research in this field to support a better understanding of the challenges and opportunities and to develop effective solutions that meet the needs of communities and stakeholders.

6. Limitations and further research

This study emphasizes the importance of including humanitarian architecture as a mandatory topic in architecture schools. This is important to provide possibilities for students to learn and develop the skills needed to address pressing social issues and contribute to the development of sustainable solutions for communities affected by humanitarian crises. Integrating this topic into the architecture program can provide students with the information and skills they need to effectively cooperate with stakeholders and address complicated challenges. More research is needed to determine the best approaches for incorporating this topic into the curriculum and to investigate its impact on faculties and students' attitudes and behaviors. The primary data for this study was distributed to selected groups of faculties and students in Riyadh-based private universities. It is believed that spreading this study to a broader spectrum and location of architecture faculties and students for further study, will support the findings presented in this study and help shine a light on this crucial subject in architectural education discourses.

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