Architectural Festivities: Shaping Young Minds through Built Environment Education

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Abstract: Educating children and young people about architecture is crucial for a better architectural future and for fulfilling the social responsibility of architects. The current generation's addiction to mobile phones and gaming underscores the need for engaging, physical play-based learning. International festivities offer a platform for architects and educators to create activities that draw young people out of their digital bubbles and into the real world, charging these activities with social meanings and built environment education. This paper examines four case studies from architectural festivities' celebration in Egypt, focusing on STEAM activities and hands-on learning. The four case studies are the celebrations of international festivities of "World Architecture Day" in the years 2023/ 2024, which were held at "The House of Egyptian Architecture" and "The National Museum of Egyptian Civilization". In addition to the celebrations of "International Children Day" for the year 2024, held at Benha University and "The House of Egyptian Architecture". These case studies are qualitatively compared based on learning objectives, context impact, achievement of learning outcomes, and feedback from participants. The conclusion presents a framework for enhancing architectural education for children and youth through contextual and engaging architectural engagement.

Keywords : Built Environment Education; World Architecture Day; Learning Platforms; Child Creativity; Architectural Festivities.

Introduction:

Educating children and young people about architecture is crucial for a better architectural future and a crucial role related to fulfilling the social responsibility of architects. The current generation's addiction to mobile phones and gaming underscores the need for engaging, physical play-based learning. International festivities offer a platform for architects and educators to create activities that draw young people out of their digital bubbles and into the real world, imbuing these activities with social meanings and built environment education. This paper examines four case studies from architectural festivities in Egypt, focusing on STEAM activities and hands-on learning. The case studies are the celebrations of World Architecture Day in the years 2023-2024, and the celebration of International Children Day in the year 2024. Those festivities are part of an initiative (Arch.Kids.Lab) to conduct experimental learning studios for spreading architectural knowledge targeting children and young people based in Egypt. This initiative, (Arch.Kids.Lab), has received Thornton Education Trust's "Inspire Future Generation" Award's Commendation for the year (2024), for Social Engagement.

1. Research methodology

The methodology adopted in this research is ethnograophic qualitative analysis of sample based activities related to architecture and children. There are four case studies documented and analyzed based on first hand information collected by the author during two years of child based

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activities in Egypt. The case studies are all related to specific architectural festivities in an attempt to create a connection between children and architecture in a learning medium which is related to a positive approach in child psychology. The case studies are qualitatively compared after being analyzed based on learning objectives, context impact, achievement of learning outcomes, and feedback from participants. Those comparitive points are tied to literature analysed related to architecture and children endeavors. The conclusion highlights the relevance of the experience to the reviewed literature and provides recommendations for enhancing architectural education through contextual and engaging methods, targeting youth and children.

2.Built Environment Education: Litrature Review on Scope, Relevance and Importance

The following part highlights a categorized review of literature focusing on Built Environment Education as a procedure and framework, to extract the relevant body of literature for setting a criterion matrix for analysis

2.1 Built Environment Education for Children as a learning approach to unveil latent talents

In his article “The Steepened Path”, architect Narinder Sagoo reflects on his experience mentoring young people, from preschoolers to adults. He shares his commitment to making education more equitable and helping future generations achieve a better standing. In a world filled with mental health challenges, demanding environments, and overwhelming digital influences, he emphasizes the importance of offering support and reassurance to those he mentors, (Sagoo, 2023). The concept of Built Environment Education (BEE) for children and youth has gained increasing recognition over the past 20 years, focusing on educating young people about the environment and how it is shaped. BEE is a collaborative effort involving architects, urban planners, designers, educators, and communities, using cities, buildings, and public spaces as educational tools across various subjects, (Uttke, 2012). Overall, engaging children and young people in the built environment helps broaden their perspectives, enhance their understanding of the field, and equip them with important life skills for the future, (Ene-Lesikar, 2022). Taking into account as architects that the built environment includes buildings of all ages and types, spaces between them, their connection to the natural environment, and their relationship with local communities, (Kendall et al., 2007). All this provide rich exploration realms for the younger generations to dive into. BEE introduces children and youth to the design, social, and political aspects of urban spaces, enabling them to appreciate their power to shape the environment for personal and communal needs and to engage in disciplines such as architecture, urban planning, design, landscape design, and urban art, using buildings, places, and spaces as a living classroom for interdisciplinary learning. The ultimate goal of BEE is a more democratic and sustainable urban environment, achieved through collective appreciation and active participation in shaping the built environment , (Venancio, 2018).

Additionally, BEE has broader impacts, including fostering skills in creativity and art, improving the teacher-student relationship, and providing teachers with opportunities to reflect on their own educational methods. BEE projects also allow children to build a new relationship with artists and designers, enriching their learning experience and encouraging active involvement in the processes that shape their surroundings, (Uttke, 2012).

Designing opportunities for play in the built environment is vital for fostering children’s health and development. Recent research emphasizes the importance of creating child-friendly environments and involving children as active collaborators in the design process. However, there is still limited consensus on how play is conceptualized and operationalized in research focused on the built environment, (Martin et al., 2023).

Play is widely recognized as essential for children's holistic development, promoting physical, emotional, cognitive, and social skills (Yogman et al., 2018), (Whitebread et al., 2017). The increasing focus on play stems from its role in addressing declines in children's physical and mental health linked to obesity, diabetes, anxiety, and behavioral disorders (Whitebread et al., 2017), (Gray., 2011). Play is not just a leisure activity; it is a recognized right under the UN Convention on the Rights of the Child (Article 31). It holds multifaceted benefits, such as, physical and cognitive growth, social-emotional competence, creativity and innovation, (Jelić, 2020). It is quite easy to tailor activities and events including children and young people which are both enjoyable and fostering stewardship. The relevant strategies are explored in the upcoming section.

2.2 Design strategies involving children: Child Right in Decision Making

The article published by Thornton Education Trust in 2022, discusses the evolving reasoning behind engaging children and young people in the built environment, emphasizing their rights to participate in matters affecting them, as outlined in the United Nations' Rights of the Child. It highlights the numerous benefits of participation, such as building soft skills, boosting self-confidence, enhancing leadership abilities, and fostering a sense of community, (Murphy, 2023). Per the United Nations, Rights of the Child core principles; "Children have the right to give their opinions in all matters that affect them and to have their voices heard. Children's views should always be taken seriously, no matter their age," (Murphy, 2023). The goals of Built Environment Education (BEE) are fostering critical thinking on spatial issues, environmental stewardship, participatory democracy, and an understanding of how humans interact with their environments across time and place. The Davos Declaration (2018) further emphasized the importance of holistic, culture-centered approaches to shaping shared environments, (Dodig, Klepp, Million, 2019). While The Belgrade Charter (UNESCO, 1975) emphasized the importance of including a wide range of age groups in built environment education, from pre-school children to higher education students and their teachers, (Özsoy, 2021).

The TET 2021/22 Awards revealed that 65% of the projects submitted for inclusion in the award were independent, 31% were client-owned (such as by developers or local councils), and 4% involved mentoring initiatives. The initiatives often used workshops (29%) and events (20%) as key strategies to provide interactive and large-scale engagement opportunities. These approaches not only introduced participants to architecture and the built environment but also developed critical skills like creativity, communication, and decision-making, (Murphy, 2023). This is highly relevant to the impetus of this research which focuses on how festivities provide a quite engaging possibility for growth of BEE among communities.

Built Environment Education (BEE) is considered an important acquisition for democratic societies, aligning with human rights and children's rights declarations. Its purpose is to raise awareness about environmental issues and inspire children and youth to take active roles as responsible citizens in shaping their communities, (Arin, 2014). The earlier children and youth begin to engage in participatory projects, the more aware and conscious they become of the world around them, especially the built environment. Thus, it is crucial to incorporate youth and children in the design of urban spaces and the built environment. Participatory projects should recognize their presence and role in shaping these spaces, (Özsoy, 2021).

Educational programs aimed at raising awareness about the built environment, such as public awareness campaigns, play an important role in fostering urban consciousness. As Magliocco

(2003) suggests, while architectural education is valuable, educating the public about the built environment is essential (Magliocco, 2003). One effective way to spread awareness is by engaging children, as they can carry this knowledge to their social circles, thus reaching a wider audience. Many institutions, including universities, NGOs, municipalities, museums, and private organizations, around the world have developed various models of built environment education programs for children, (Özsoy, 2021).

While the idea of citizen participation is widely acknowledged as beneficial, there is often a tendency to "work for children" rather than "with them." Driskell (2002) highlights the misconception that adults can make decisions on behalf of children because they were once children themselves (Driskell, 2002). However, children's perspectives are unique and continuously evolving, and only children themselves can truly understand what it means to be a child in the present day, (Özsoy, 2021). Banerjee, Uhm, and Bahl (2014) further emphasize that children experience and perceive space differently than adults, (Banerjee, 2014). Their perception of scale, tactile experiences, and mental associations shape their unique understanding of their environment. This underscores the importance of considering children's perspectives in designing spaces, as their interactions with the built environment are distinct from those of adults. Ultimately, built environment education is more about being integrated into urban culture than merely preparing for a vocational career in architecture. It allows children and youth to become active participants in shaping their surroundings, fostering a deeper connection to their community and environment, (Özsoy, 2021). Young people are not just future citizens but active and autonomous citizens already, possessing valuable knowledge and skills. This perspective challenges the traditional view of youth as passive recipients of education or governance, and instead recognizes their existing capacity to contribute to society, as outlined by Corsaro (2005), (Corsaro, 2005).

The issue is framed not just in terms of architecture but in a broader context across multiple fields, aiming to create a connection between architecture and education. This research seeks to bridge the gap between these disciplines, suggesting that the separation between architecture and society may stem from how the architectural world is often viewed in isolation from social realities. Architecture is sometimes seen as something created by professionals for users, rather than being directly shaped by the needs and experiences of the people who will use it, (Costa, 2018). Drawing on Foucault's ideology (1988), spaces have inherent characteristics that influence and shape us, particularly in terms of "body disciplining", (Bevir, 1999). This refers to the way the design of physical spaces can affect our actions and behaviors, shaping how we interact with our environments in ways that can subtly normalize certain actions or behaviors. Understanding this relationship between space and behavior is crucial for integrating social reality into architectural design, ensuring that architecture is not just functional but also attuned to the social and cultural dynamics of the people who occupy those spaces, (Costa, 2018). The built environment plays a crucial role in fostering opportunities for independent play and informal learning. However, to support children effectively, urban planners and researchers must consider broader social, biological, and environmental contexts and develop strategies that respect children's perspectives, needs, and autonomy, (Cunningham, 2017). Children's right to the city extends to all aspects of the urban landscape. They inherently interpret and transform spaces through their interactions, the open-endedness of urban affordances, enabling creativity even in spaces not explicitly designed for children; the capacity of built environments to act as a stage for joyful learning and social development, engaging children and youth in BEE promotes individual growth and skill-building (Martin et al., 2023). Programs like Arkki in Finland emphasize developing competencies such as complex problem-solving, creativity,

critical thinking, communication, and collaboration. Students learn practical skills like identifying needs, framing problems, and working collaboratively — preparing them for a variety of careers, (Venancio, 2018). The following part of the research highlights the various tools and methods previously explored by BEE enthusiasts to deliver their intended agendas.

2.3 Tools and Methods in Delivering Architectural Knowledge to Children

While architecture significantly impacts everyone, it is not commonly embedded into children's lives, despite the growing recognition that architecture students should develop skills to engage with communities, particularly marginalized groups, (Ene-Lesikar, 2022). Currently, engagement is not mandatory for universities, meaning its form and extent varies across institutions. However, nearly all UK universities offer some outreach to young people, focusing on practical skills, knowledge, and guidance related to higher education and career progression, (Ene-Lesikar, 2022).

The benefits of youth engagement, including the development of soft skills like self-confidence, leadership, and critical thinking, are widely acknowledged. The growing support for youth participation in design emphasizes the importance of finding effective methods for engagement, which can vary based on context, (Ene-Lesikar, 2022). Four key types of engagement are identified as; Programme, Live Project, Workshop and Resource. These approaches differ in terms of time scale, goals, participation level, and the people involved. Additionally, The Royal Institute of British Architects encourages architectural practices to engage with schools, as it opens new possibilities for young people, (Ene-Lesikar, 2022).

BEE plays a significant role within cultural education, fostering a deeper understanding of the built environment and its cultural implications. It is closely linked to design education as it encourages children to explore architecture, urban design, and the broader built environment, using interdisciplinary teaching methods. BEE empowers students by giving them the knowledge and skills to influence and participate in the design and planning of their environments as adults, (Uttke, 2012). Various scales and methods of BEE have been developed, from small-scale classroom projects to larger public engagement initiatives. The outcomes of BEE include a stronger sense of connection to the built environment, the development of critical thinking and design skills, and an increased interest in architecture and urban planning careers, (Uttke, 2012).

Some notable examples of BEE initiatives include (Özsoy, 2021):

1. "Architecture Through Games" (Eskişehir, November 12-14, 2009) – This event combined architectural education with interactive games, allowing children to explore and engage with architectural concepts in a fun and accessible way.

2. ArchYoga – Wear Architecture: Costume Parade – A three-day workshop as part of a festival that merged architecture and physical activity. It likely encouraged creative thinking and movement related to the built environment.

3. "Building Energy Museum with Little Architects" (Istanbul, January 2010) – This project involved children in the creation of a museum focused on energy, helping them understand sustainability and environmental concerns in the context of architecture.

4. Elevation Using Sticks – A project where children likely used sticks to design or model architectural structures, reinforcing concepts of design and construction.

These initiatives show how BEE can use hands-on, engaging methods to educate and empower young people, preparing them to be active participants in shaping their environments and addressing pressing global issues like sustainability and urban development, (Özsoy, 2021).

In this reflection, the potential of architecture as a tool for exploring and understanding social phenomena, have been particularly highlighted in a study in the context of refugee camps. By viewing the built environment through an urban lens, the built environment becomes an active agent, allowing for deeper analysis and improvement of the conditions within refugee settlements. The author suggests that understanding the growth patterns of refugee camps and making spatial information accessible can lead to better planning and management, ultimately improving the lives of those in the camps, (Elorduy, 2021).

A key example is how the construction and mapping of formal Early Childhood Development (ECD) centers in refugee camps can raise awareness about the importance of early education. The author has developed maps, websites, and publications that aim to trigger discussions about the significance of both the built and learning environments for young children in refugee settings. By focusing on how these environments impact education, the hope is to spur locally led research and improve refugee assistance strategies, (Elorduy, 2021).

The built environment, particularly in informal settings like homes, streets, and public spaces, plays a crucial role in young children's learning. These environments, which the author classifies as "informal learning environments," shape children's behaviors, values, and knowledge through lived experience. Unfortunately, the negative effects of these environments are often overlooked, as much of the education focus remains on formal ECD facilities. The author advocates for a broader perspective that recognizes how the physical surroundings, even within camps, can be harnessed to create positive, stimulating learning experiences for children, transforming challenging environments into spaces that support lifelong learning, (Elorduy, 2021).

Integrating insights from childhood development, architecture, and landscape architecture to propose a more child-centric approach to designing spaces for children. It highlights the differences in spatial perception between adults, who prioritize form and aesthetics, and children, who value functionality and sensory engagement, (Said, 2007). Thus, the key points include; Children's Spatial Perception, Role of Nature and Outdoor Spaces, Confining children indoors limit their natural exploratory instincts and cognitive development, Outdoor spaces, with their variability and connection to nature, foster learning, emotional growth, and problem-solving skills, (Said, 2007).

To conclude, incorporating a multidisciplinary understanding of children’s developmental needs into architectural education and practice can lead to more engaging and supportive environments for children, (Said, 2007). While contexts of play can be grouped into; Educational settings (e.g., schools and classrooms), Public playgrounds and other recreational spaces, urban spaces with interventions aimed at disadvantaged communities. While, highlighting the role of well-designed play environments in promoting health, learning, and well-being in various contexts, manifests the need to acknowledge, children’s diversity, nuanced understanding of play, democratic contexts of play.

Thus, there is a need for a multidisciplinary approach to designing play opportunities in the built environment, integrating insights from public health, psychology, education, and urban design to support children’s rights, health, and development. Cunningham & Jon, (2006), provide the following Research Techniques to Understand Children’s Play (Cunningham, 2006):

- Questionnaires with specific, factual questions (e.g., “Where did you play yesterday?”).
- Small group discussions to unpack the meaning of children’s activities.
- Mapping exercises to explore neighborhood spaces.
- Photography by children to document and explain their activities.
- Story writing as a creative way to express their experiences and perspectives.

BEE supports various learning outcomes, including observation, investigation, literacy, numeracy, and spatial awareness. Engaging with buildings and spaces can foster creativity, reveal hidden talents, and enhance concentration and learning across the curriculum, (Kendall et al., 2007). Common activities in schools: Exploring school grounds, Site visits to local places of interest, Classroom discussions.

Project-based learning involving the local community. Connections to non-formal learning: Activities such as family events, vocational explorations, and community projects are frequently tied to BEE, (Kendall et al., 2007).

Participatory workshops in schools have shown transformative impacts, (Keane, 2015). Students creatively explored how school spaces could be reimagined using physical and digital tools. They reported a deeper connection to real-world careers and an enjoyment of collaborative ideation. These engagements revealed how practical projects can, enhance spatial awareness, stimulate enthusiasm for lifelong learning and instill a sense of empowerment through active problem-solving.

Beyond playgrounds and schools, informal play spaces — like neighbourhoods and transitional urban areas — encourage community engagement. Children reimagine city landscapes, turning seemingly mundane spaces like bus stops into playgrounds for exploration and interaction. By engaging with their environment in imaginative ways, children find joy in urban exploration, enhancing their sense of identity and belonging, (Jelić, 2020).

The dual facets of built environments in learning include: Spontaneous interactions; Informal spaces like city streets, public squares, or vacant lots serve as arenas for imaginative play. Planned experiences, Intentional interventions, such as "learning landscapes" or designed play areas, create purposeful opportunities for playful education and community bonding. While the Key Themes in Playful Urban Design relate to Prominent trends in designing play-friendly environments emphasize: Physical activity and skill development: Incorporating equipment and space for climbing, running, and other gross motor activities. Nature-focused play: Using natural features (e.g., trees, water, rocks) to encourage sensory and exploratory play. Creative, open-ended experiences: Movable structures and flexible elements allow children to adapt and define their play, fostering creativity and independent thinking, (Jelić, 2020).

While environmental education is typically linked to nature education and ecological sustainability, there is growing recognition of the need for urban environmental education. This need was first articulated at UNESCO-organized conferences in the 1970s, and today, the urban focus of environmental education increasingly emphasizes the challenges and opportunities within cities, especially for young people, (Hilander, 2022). The trends in urban environmental education, as highlighted by experts like Russ and Krasny, include the following five key approaches, (Jelić, 2020); City as Classroom, Problem Solving, Environmental Stewardship, Youth and Community Development, City as a Social-Ecological System. The concept of transforming the school building and grounds into an ecological hub through the integration of architecture and environmental education is both innovative and highly impactful. Scholars

have conceptualized this approach as turning the learning environment itself into a three-dimensional (3-D) textbook. This model aims to create spaces that go beyond their conventional role as mere shelters for learning and actively serve as tools for teaching ecology, sustainability, and the built environment, (El-Aasar, 2024). Lastly, related to the review of previous literature, the following part showcases similar practices of utilizing festivities in child oriented practices related to the built environment, or related spaces similar to theoretical logic of the case studies selected in this paper.

2.4 Festivities as a tool for encompassing child oriented practices

Architects and urban planners can use cultural heritage as a learning resource to teach built environment education (BEE) to young people. By critically examining the Bavarian Lost Traces project, it highlights how creative spatial interventions can transform historic relics into opportunities for public engagement and collective cultural growth, (Dodig, 2019). The Lost Traces project involved 23 initiatives where school children engaged with archaeological traces, abandoned buildings, and relics. This helped bring attention to "lost places," reimagining their significance and transforming them into shared cultural futures, (Dodig, 2019). Activities like drawing, photography, mapping, and 3D modeling allowed pupils to express individual and group sentiments about cultural heritage. Engagement involved research, spatial analysis, and designing creative interventions, such as artistic scenography, street art, light installations, and public events. These activities stimulated discussions, redefined spatial use, and generated innovative ideas for site development (Dodig, 2019).

The approach prioritized iterative learning over goal-oriented tasks, emphasizing experience, exploration, and reflection rather than final assessments. This method focused on a dynamic, performative relationship between students and cultural heritage, fostering an evolving understanding of space and its cultural potential. The project framed pedagogy as a means to create transformative spaces of knowledge exchange. It presented architecture as inherently educational and education as an architectural experience, facilitating mutual growth between learners and their environments. There is a transformative potential of integrating cultural heritage into BEE and its ability to enrich learning experiences while fostering critical connections between history, community, and future development, (Dodig, 2019).

Play is regarded as “the work of childhood,” fostering self-awareness, social learning, and understanding of dynamic relationships with peers and the natural world. Children prefer complex environments for exploration and interaction, including natural elements (plants, animals, landforms) and human artifacts, (Cunningham, 2006). While, local buildings and spaces represent a "shared culture," promoting unity and collaboration within society. Engaging young people in understanding and appreciating their built environment strengthen connections to their local community, (Kendall et al., 2007). Interaction with the built environment fosters contextual relationships, urban awareness, and an understanding of visual and cultural literacies, (Keane, 2015). Introducing children to city life encourages the development of urban identity, connections with built heritage, and the ability to act on ideas in real-world contexts. Cities serve as open classrooms with people, places, and processes providing unparalleled learning resources. However, these resources demand skills to perceive and utilize their educational potential.

Everyday interactions with public and private spaces allow for the creation of meaningful memories that shape identity, sense of belonging, and place attachment, (Keane, 2015). Place-based built environment education, enriched by diverse forms of play and exploration, empowers young learners to connect with their urban and cultural landscapes. By providing

structured yet flexible opportunities for students to learn from cities, public spaces, and memories, educators can cultivate resilient, engaged, and adaptive individuals prepared to lead their communities into the future, (Keane, 2015).

BEE also strengthens participants' relationship with their environment and promotes emotional well-being: Sense of place: Children often develop an emotional connection to their surroundings, reinforcing their identity and understanding of space. For example, one study reported that students felt excited and empowered when engaging with their personal and familiar environments. Environmental awareness: Children's projects often foster an enhanced understanding of their relationship with the natural environment, inspiring sustainable practices, (Venancio, 2018). A range of sectors plays a role in supporting Built Environment Education (BEE), with universities, museums, and various other institutions fostering engagement between children and the built environment. One particularly significant contribution comes from museums, which are emerging as essential spaces for BEE through diverse, globally recognized programs.

Brkovic Dogic's study contributes to the growing knowledge of BEE by interviewing museum-based providers, shedding light on the varied approaches museums employ in supporting children's exploration and understanding of architecture, urban planning, and design. Her work highlights how these venues become central to BEE through; Hands-on experiences that encourage exploration of both historical and contemporary environments, Interactive learning environments where children are encouraged to engage with, critique, and create spaces, Collaboration with universities and institutions that allow students and educators to directly work with young audiences, helping bridge academic knowledge with real-world application, Access to diverse knowledge: Museums provide a wealth of accessible learning opportunities, from architecture exhibits to interactive workshops where children engage with real design challenges, and finally, cultural context by incorporating local and international cultural examples, museums help young learners build an understanding of identity, heritage, and the built environment as reflections of society and history, (Dodig, 2018). Brkovic Dogic's research adds important insights by documenting and analysing these practices, offering a rare academic perspective on how museums globally are establishing themselves as vital sites for BEE (Dodig, 2018). This underlines the necessity for greater collaboration between education institutions, museums, and urban planners, ensuring a more integrative approach to urban learning, (Million, 2018).

3. Material and Methods

Collected materials in this section refers to the activity of Thornton Education Trust awarded initiative: (Arch.Kids.Lab). This initiative aims to create an architectural educational platform which engages children and youth to their built environment. One of the tools adopted in this initiative is to raise awareness on international festivities related to architecture. The workshops provided by (Arch.Kids.Lab) to introduce and engage the younger generation with the built environment aimed to bridge the gap in knowledge between architecture as a discipline and formal education in schools in Egypt. Although architecture is the places children dwell, play and socialize, yet, clear understanding of who the architect is, and his role in the community is missing. Thus, the initiative aimed to highlight how arts and science are related to the built environment in a fun way. This was the main aim during the activities provided for all children from diverse backgrounds. Utilizing scientific knowledge and background helped in fragmenting knowledge to younger generations. . The most prominent research was related to how STEAM can be incorporated in early years learning via the introduction of structural theories through hands on activities and paly. Arts,

technology, engineering and mathematics were also delivered via interactive play. Nature-based learning theory in early years was additionally an important factor practiced in the architectural sessions. While introducing the United Nations' Sustainable Development Goals to raise environmental responsibility and to help children feel ownership to their communities was a fundamental research background. Community participation in design and research about climate change is also included in the frameworks for educating children.

Endeavors with the built environment sessions for children targeted three major tracks to reach realization on the ground. First was seasonal camps at schools; summer, autumn and winter camps. Second was tailored workshops related to a topic introduced during the stream of the formal terms, as an extra-curricular activity or within applied school projects. And third, which is the focus of this research was the celebration of special days like World Architecture Day, or Climate Change Awareness workshops during World Urban Forum preparations. Collaborations with various stakeholders were initiated to achieve the goals; international schools, NGOs, Children University, the Cultural Development Fund affiliated with the Ministry of Culture and also with Sports and Social Clubs.

One of the main goals were to shed light during those celebrations on the role of historically contextual spaces in bonding the new generations with their architectural identity. Therefore, the four festivities currently analyzed in the scope of this paper were all linked to cultural heritage and identity one way or another. The main umbrella for celebration investigated in this paper are; World Architecture Day- celebrated by the Union of International Architects in the 1st Monday of October every year, and the International Children Day- on the 20th of November of each year which is declared by the UNICEF. In the years 2023/ 2024, the festivities were organized and celebrated by Arch.Kids.Lab as qualitatively analyzed in the upcoming sections. The criteria of comparison between the collected materials for each festivity is as follows:

1-Relevance of the festivity to Built Environment Education.
2-Contextual Richness of the Celebration Venue.
3-Number and Age of Involved Children and Youth.
4-Theoretical Content of the Architecture Delivered to Participants.
5-Participants Engagement in STEAM Activity during the Event.
6-Assessment of Learning Outcomes.

3.1 Case Study 1: World Architecture Day 2023- The House of Egyptian Architecture

The declared aim by the Union of International Architects for "World Architecture Day-2023" was the: Architecture for Resilient Communities. Undertaking this slogan, an open invitation was announced by the House of Egyptian Architecture affiliated to the Ministry of Culture, to adopt a celebration in the center of Historical Cairo. The event attracted almost 40 child, ranging in ages from 6-14 years old. The festivity was divided into three parts. First, a talk on the importance of achieving a resilient community via architectural values related to preservation of heritage and responsible consumption in the built environment. Second, the introduction of a recycled play tool, which is the "Reblox", all manufactured using recycled plastic. During this phase, children were allowed to freely create architectural elements similar to their everyday contact with the built environment. They utilized the available space inside the House of Egyptian Architecture courtyard to create gates, walls, windows, columns and flower boxes. Finally, the celebration was concluded by a field tour at different spaces of the ancient Ottoman House, and the masterpiece of Historical Cairo, Sultan Hassan complex, (figures 1, 2).

Fig.1. Children Building Activity Using Recycled Blocks- World Architecture Day



Source: Mennat-Allah El-Husseiny, 2023

Fig. 2. Sultan Hassan Complex Site Visit- World Architecture Day



Source: Mennat-Allah El-Husseiny, 2023

3.2 Case Study 2: World Architecture Day 2024- National Museum of Egyptian Civilization

The following year, in October 2024, Arch.kids.lab initiated a call for celebrating World Architecture Day declared by the UIA beholding the theme “Next Generations”. The celebration involved a field visit to the National Museum of Egyptian Civilization, (figure 3, 4). The celebration aimed at bridging the gap between the younger generation and their national identity via a deep exploration of collective identity. The exploration welcomed 15 participants from different ages ranging from 9-13 years old. The exploration included a two-fold dimension. First was the accumulation of historical eras manifested in the chronology display for artifacts. This was reflected in the pre-historical era, the Ancient Egyptian civilization with its various dynasties, the roman era, the Coptic era, Islamic art and artifacts, Khedival Rulers, and Modern Egypt. This journey through time and space was rather engaging for the young participants, since it incorporated the use of electronic display devices provided by the museum at every station. The second interesting dimension of this exploration was the architectural narrative of museum spaces and spatial experience. This was held through reading the collective physical model displayed in the museum hall, and deep reading of the plans via explorative treasure hunt between 2D readings and spatial zones. The most interesting spatial experience explored by the participants was the Mummies Hall. This hall’s experience due to its unique mimicking of the cave like display of the mummies similar to the initial method the mummies were discovered during excavations. Additionally, the museum display included physical models replicas of many Egyptian monuments, which aided to provide a wider understanding of the built environment for the young generations.

Fig. 3. National Museum of Egyptian Civilization Visit- World Architecture Day



Source: Mennat-Allah El-Husseiny, 2024

Fig. 4. National Museum of Egyptian Civilization Visit- World Architecture Day



Source: Mennat-Allah El-Husseiny, 2024

3.3. Case Study 3: International Children Day 2024- The House of Egyptian Architecture

International Children Day is a special occasion to manifest children rights about engaging with their built environment. Especially in the year 2024, the theme of the celebration was dedicated to “Inclusion of All Children”. This theme provided floor for multilayered interpretations. From children with disabilities, children of marginalized groups, to children right in decision making about their own spaces, it was quite a challenge to address those spectrums in festivities dedicated to educating children about the built environment. Case study 3 and 4 although tackle the same celebration for the same year, however, the goals and methods were different. In case study 3, the festivity was held at the House of Egyptian Architecture, welcoming 20 participants from children of a marginalized community. The children were introduced to principles of public space inclusion, universal design guidelines, and the need to indulge all children in play activities in their neighborhoods. The learning outcomes were materialized in a graphical representation of a design of a play area in their neighborhood, taking into consideration the inclusion of all children, from all backgrounds, genders, physical and mental abilities. The manifestation of cultural identity was evidenced through the specific location of the place where the festivity took place, and the proximity of the designed public space to the historical context of Al-Sultan Hassan.

Fig. 5 (a,b) International Children Day – House of Egyptian Architecture



Source: Mennat-Allah El-Husseiny, 2024

3.4. Case Study 4: International Children Day 2024- Benha University

The quest to answer during the celebration of International Children Day with the theme "Inclusion of Every Child', was related to the focus of the architectural children based activities in the vicinity of greater Cairo alone. Thus, it was quite a challenge in the realm of this festivity to explore a new Governate, which was less exposed to Built Environment Education knowledge. The selected location was Benha University, located at Al-Qalubiya. Working with children from a remote context was a special learning experience. And to break this barrier of knowledge, it was agreed upon to primarily tackle the exploration of cultural visual identity (figure 6 a, b). Through this visual connection, it was easier to correlate children knowledge of the famous landmarks they witness on a daily basis with understanding "Image of the City", the famous place-making theory by Kevin Lynch. To acquire the introductory notion of visual identity, the 5 elements of the city as defined by Lynch were introduced; landmark, edge, node, district and paths. Following that, projection of each element on the context of Benha was done, through hands on collage formation of a poster identifying the child's understanding of visual identity. This was widely encouraged to include not only their manifestation of places, but also of main characters who form their special relation to the history of their city. The number of participants who joined this celebration were 40 children, from the age of 9-14 years old.

Fig. 6 (a,b) International Children Day – Benha University



Source: Mennat-Allah El-Husseiny, 2024

4. Results

This discourse on the role of festivities in introducing built environment education in the Egyptian context was limited to the qualitative outcomes of the process rather than the product of each festivity. Relating to the outcomes of the review of the body of knowledge on the topic, it is all related to the acquired skills, exposure, architectural vocabulary and community engagement of the younger generations, to sustain and to promote democracy of knowledge among the future decision takers. The analysis of the process as qualitatively assessed above, can manifest the criteria of disseminating BEE among children and youth. Manifesting celebrations of international special days relate the audience more to the global sustainability agenda. This also provides floor and room to expand on the local discourse to reach an international one, where shared futures can be drawn together. This taken into account, the comparative results below in Table 1, draw on the outcomes of the collective process of all the four events mentioned above. And continuing on the discourse from the literature, the following aspects of comparison have been extracted:

Table 1: Comparison on the Impact, Scope, Relevance and Added- Value of the 4 Festivities analyzed

Point of Comparison	World Architecture Day- 2023	World Architecture Day- 2024	International Child Day 2024 (1)	International Child Day 2024 (2)
Relevance of the festivity to Built Environment Education.	**Theme: Resilient Communities** Introducing architectural elements through construction using Re-blox material. Site Visit to Al-Sultan Hassan complex.	**Theme: Next Generations** Understanding spatial configuration of plans Vs actual manifested spatial experience. Understanding historical architecture and the chronological history of Egyptian Civilization.	**Theme: Inclusion of Every Child** Introducing Inclusive Design principles, including design strategies for various disabilities. Followed by the application of those principles on the design of a public park from the children's invention.	**Theme: Inclusion of Every Child** Introducing visual identity for the government of Benha, one of the cities considered Greater Cairo Suburb. Through tools and methods to enhance children's understanding of the image of the city, they were asked to produce a collage for major city landmarks and identify the remarkable influential figures within their artwork.

Contextual Richness of the Celebration Venue	Historical City Center of Old Cairo, precisely, The House of Egyptian Architecture and Al-Sultan Hassan Complex.	National Museum of Egyptian Civilization, at Al-Fustat, which incubates the development of Egyptian civilization through time.	Historical City Center of Old Cairo, precisely, The House of Egyptian Architecture.	Benha University.
Number and Age of Involved Children and Youth	Age Range: 5-13 Number of participants: 30 approximately.	Age range: 9-12 Number of participants: 10 children	Age range: 9-14 Number of participants: 20 children	Age range: 7-14 Number of participants:50 children
Theoretical Content of the Architecture Delivered to Participants.	Construction Stability History of Architecture	Spatial Organization History of Architecture	Standards of Inclusive Design Elements of Park Design	Kevin Lynch Theory Urban Development of the City
Participants Engagement in STEAM Activity during the Event.	Blocks Building	Treasure Hunt	Storytelling	Collage Art
Assessment of Learning Outcomes	Engagement in Blocks Construction using various methods.	Personal reflections on their understanding of the museum spaces configuration. Success in solving the riddles.	Narrative Design and reflection on the learnt strategies and inclusion standards.	Success in creating a poster design based on Kevin Lynch “Image of the City” theory.

Source: Mennat-Allah El-Husseiny, 2025.

5. Discussion

This research set out to explore how architectural festivities can serve as effective pedagogical platforms for delivering Built Environment Education (BEE) to children. Through an ethnographic, case-based methodology, it has become evident that such celebrations are fertile ground for introducing architectural knowledge, nurturing spatial literacy, and fostering children’s creative and critical thinking skills. The documented events—World Architecture Day (2023 & 2024) and International Child Day (2024, two instances)—demonstrated how site-specific, hands-on learning encourages children to not only absorb theoretical content but also to reinterpret and reimagine their environment.

A key strength of the festivities analyzed lies in their contextual richness. Hosting events in heritage sites such as Old Cairo and the National Museum of Egyptian Civilization deepened children's connection to place, culture, and historical continuity. These locations provided more than a backdrop; they acted as experiential learning tools, offering scale, materiality, and spatial relationships for children to explore directly. This aligns with existing literature on place-based education, which emphasizes real-world immersion as a driver of meaning-making and memory retention.

The integration of STEAM-based activities also proved instrumental. The events did not isolate architecture as a purely technical or artistic domain; rather, they embedded it within a multidisciplinary framework—construction games, storytelling, visual arts, and collaborative design. These multimodal experiences supported diverse learning styles and made architectural knowledge more accessible. Importantly, children did not just consume knowledge; they produced it. Their collages, models, and creative outputs revealed an internalization of architectural vocabulary and spatial logic, which they often applied to personal or community-based visions. Projects inspired by Kevin Lynch’s Image of the City enabled participants to externalise mental maps through collage, reinforcing the five elements of urban form (paths, edges, districts, nodes, landmarks) and

cultivating urban literacy. Similarly, block-building tasks demonstrated principles of structural stability, while narrative design exercises linked empathy with spatial programming.

Equally important is the inclusion agenda seen in the Child Day festivities. Teaching principles of universal design—particularly in age-appropriate, interactive formats—repositions children not only as future users of the built environment but as co-creators and empathetic decision-makers. When asked to design inclusive parks or imagine city identities, children engaged in thoughtful exercises that foregrounded diversity, equity, and accessibility. These themes directly respond to global educational and developmental goals, especially SDG 11 (Sustainable Cities and Communities) and the UN Convention on the Rights of the Child, which mandates the child's right to participate in decisions affecting them.

The ethnographic approach proved especially appropriate, given the diversity in children's cognitive, social, and emotional development. Quantitative methods, as discussed, would have inadequately captured the richness of the learning moments, especially the reflective, expressive, and spontaneous dimensions of the children's engagement. Observational notes, informal interviews, and creative outputs offered valuable qualitative data, validating the child-centered, humanistic emphasis of this research.
Nevertheless, several limitations must be acknowledged. The scope was geographically limited to Egypt, with a focus on urban or peri-urban contexts. Participant numbers varied, and the absence of control groups or pre-post testing precludes generalizability. Future research may benefit from longitudinal tracking, mixed-methods evaluations, and comparative studies across different socio-cultural settings.

Conclusion

The paper highlighted an important pedagogical method of delivering education about architecture and the culture of building via blending tools and ideologies from several bodies of knowledge. The notion (Built Environment Education- BEE) is highly related to creative disciplines and tools to incorporate decision makers of the future into the process of creating their own places now. Based on the review of previous endeavors, best practices, projects, research and the collaborative explorations of activists in the field, a methodology of analysis was developed to qualitatively analyze and compare the tools and methods adopted in the architectural festivities celebrations including and involving children through BEE and STEAM activities. The specific reason of choosing architectural festivities, similar to the ones studied hereby such as International Children Day, and World Architecture Day, is the relevance to the international community, the possibility of delivering further participatory practices related to the international spectrum, and the engagement and exposure those festivities to younger generations.

The limitations of this study is primarily the difficulty of achieving a decisive quantitative result from the case studies. This is related to the varying participants, due to difference in locations and timings. Additionally, the inaccuracy of quantitative methods, due to the highly varying patterns of learcing each child could comprehend and thus explain subjectively. That was the reason in this highly human-centered research , it was essential to adhere to ethnographic observations and remarks, which would more accurately discuss the dominant findings.

Relating the outcomes of the study to the body of literature provide us with a clear understanding of the impact of the results of the analysis, accordingly, this part highlights the main concepts discussed and their relevance to the case studies. Starting with the understanding of the "Built Environment Education" for children as a learning approach to unveil latent talents, it was astonishingly relevant, that all children engaged in the activities showcased a productive manner, managed to express their awareness of the given theoretical information in a clear way, and

successfully conducted their own creative activities. It was a platform also for celebrating other talents based on the wish of the children themselves, whether related to artwork or poetry. The role of technology also helped enormously, for the children also utilized the available technologies to showcase the best of their outcomes using interactive platforms. Thus, the architectural content acted as a catalyst for further explorations, self-expression, discovery and further celebration of talents.

As to "Child Right in Decision Making", as stated by the UN Convention, children have the right to choose and decide on anything related to their fate, accordingly, a generation well aware of their history, architectural values, contexts, architecture best practices, the meaning of space, architectural qualities, their environment, and their culture and identity will be able to take their decisions wisely and through serious awareness. This is one reason for the need to wide spread the awareness about the architectural responsibility and create a real and growing bonding between children and their physical environments. Precisely, with the distorted architectural intake from electronic games, and without valuable contributions and interactions from the valuable built context, we might not have the future we would dream of as architects opting for an enhanced, not tasteless architectural future. Having that said, within the scope of the four analyzed case studies, children participating were engaged in a critical thinking mental exercise to either build, re-image, design a place they wish to have in their neighborhoods, or play role their aspirations for the architecture they wish to dwell in one day.

According to children psychology, the best way to teach is through actual involvement. That's why there are everlasting and developing tools and methods in delivering architectural knowledge to children. Within the context of the four selected case studies, the variety of tools and methods were intended to observe the best engagement levels and also to avoid any boredom if any child has been attending consecutive celebrations. It was also important to create an outcome easy enough to be conducted with tutors the children get introduced to for the first time, and complex enough to be covering all the intended architectural learning outcomes delivered. With very rare exceptions, the children involved in the sessions showed eagerness, self-motivation, excellence and the wish to perfect the activity they had. It was also a positive indication of success whenever the ending feedback includes the desire to repeat the session again, or being so proud of their architectural outcomes and wanting to take them home. Based on informal qualitative interviews post each celebration the children explained what they learnt and how much fun the celebration was. Additionally, they were all the time so eager to document the days by their own creative manners.

Based on the above discussion, festivities as a tool for encompassing child oriented practices opt to be a collective learning method which can facilitate the delivery of BEE to wider spectrum of audience among different backgrounds and age groups. The breakage from the rigidity of formal learning, the aura of celebrating and having fun, the environment of learning and teaching based on an international collective call and the alternating theme beheld in each festivity are all factors which enrich the dynamics of a non-conventional learning approach. Moreover, those practices associate architecture more into a realm of creativity, enhancement of the surrounding environment, blend more with what children are created to witness; play.

Based on the experience of the initiative aiming to involve children and young people in their built environment through creative tools and state-of the art teaching methodologies, we can claim that all children can be active participants in the creation of their own environments, no matter the background, the challenges or the level of education they are exposed to. BEE is for all children, and it doesn't only affect the participating children in a positive manner, but it also reflects on the architects and educators delivering the architectural content to the children themselves. The

methodology of fragmenting knowledge, engaging in hands on activities, producing a well thought-off outcome, playing, documenting and additionally responding to a cause; based on the theme of the festivity, all encounter an addition to the latent talents all children behold. Thus, it is our responsibility as architects and educators to empower the future generations even more through taking them into account, in our strategies, educational experiences, and design decisions which enable more engagement and participation.

For further future research on the topic, recommendations are to adopt mixed-methods evaluation. Meaning to pair qualitative reflections with pre/post spatial-skill tests or attitude surveys. It can be an added value to achieve longitudinal tracking through following cohorts to see whether early exposure influences later elective choices or civic engagement. Diversify settings can help in opening up new realm for research, through arranging pilot festivities in peri-urban and rural schools to gauge contextual transferability. Digital augmentation in Built Environmnet Education is also under researched, which includes integrating AR/VR heritage walkthroughs to reach larger audiences without compromising site preservation. Finally research on policy alignment and using findings to advocate for embedding BEE modules in Egypt's primary-school curriculum.

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