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Built Environment Education For Children Through Architectural Workshops

Sebla ARIN ^{a*}^a Instructor, Bursa Orhangazi University, Mimar Sinan Mh. Mimar Sinan Bulvarı No:177 Yıldırım, 16310 Bursa, Turkey

Abstract

Built environment education is becoming more popular and crucial as far as a bigger percentage of the world population is living in urban areas day by day. Therefore built environment education is an essential part of urban culture. This study presents two different examples of workshops carried out with children aged between 8-12 years old. The intention of these workshops was to raise children's awareness on their built environment and architectural culture.

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1. Introduction

Even though architecture is generally perceived to be only a professional field, built environment education has to be spread out to all members of the society. Because architecture can't be excluded from daily life and every single person is effecting built environment as being a user, decision-maker, member of NGO's, etc... Frequently non-professionals take the decisions, which would affect the quality of built environment. Therefore the consciousness of the whole society on these subjects is becoming an important matter. The citizen participation in urban design process might also be evaluated from civic rights point of view. But there is a vital point in taking citizens' decisions into consideration while shaping the built environment. It is the built-environment education supplied for the whole society starting from early stages of their social life. The right to participate in urban design

* Corresponding author: Sebla Arin. Tel.: +90-224-4448268

E-mail address: sebla.arin@bou.edu.tr

is an acquisition of democratic societies and it is supported by human rights and children rights declarations. But as far as no opinion can be born out of nothing; proper education programmes on built environment should provide plenty of knowledge. As it is stated in the Copenhagen Declaration of UIA (2009) [1], the survivability and sustainability of urban environments depend on the consciousness of all users.

The basic framework of built environment education was developed in Belgrade Conference on Environmental Education (1975) and Tbilisi In governmental Conference on Environmental Education (1977). Built environment education aims to raise consciousness on environmental issues and motivate children and youth to take active roles as responsible public figures [2]. There are many programmes and activities designed in order to popularise architectural culture amongst children. In the UIA Built Environment Education Guidelines: 2002 [3] it is stated that *“critical thinking, responsible citizenship, cultural literacy, social relevance and environmental sustainability all can be addressed through using issues of the built environment to teach traditional curriculum material”*. This phrase is the threshold of architectural education programmes in many countries. Each country shape of BEE and repertory of activities according to the needs and deficiencies of their educational system.

Besides providing consciousness for children about environmental issues, built environment education helps to improve innovation, creativity and ability to design. Dealing with many different fields during the educational activities, children become more open-minded and get accustomed to teamwork.

2. Case Studies

Two cases will be discussed in this paper. First workshop is “Architecture Through Games” made on 12-14 November 2009, in Eskişehir. It is a three daylong workshop designed as a part of a Festival. The second one is “Building Energy Museum with Little Architects” on January 2010, in İstanbul.

2.1 First Workshop: Architecture Through Games

“Architecture Through Games” was held in the context of 15th International Eskişehir Festival / Children’s Activities section in Eskişehir on November 2009. It was carried out with two groups consisted of 20 children each. Each group attended the workshop approximately 3 hours a day for 3 days. There were two sections each day and one of the groups was attending to morning section and the other one was attending to afternoon section. The aim of the workshop was to make the children familiar to different aspects of architecture. Different activities were designed for each day in order to accomplish this aim.

2.1.1 YogArch: Imitating a Building

YogArch, as it can be understood from the name, is a combination of yoga and architecture. It is designed by the author in order to clarify general structural rules and elements of buildings by experiencing them through human body. The programme is constituted from a set of yoga asanas supported by visual materials. The set is designed in the norm of an ordinary beginner-level yoga class, which means the order of the asanas is not coincidental. The set starts with simple warming-up asanas, continues with more complicated asanas of balance & power and finishes with relaxation poses. Each of these asanas symbolizes a constructive principle or an element. Before practising the asana, this working principle or element is explained on the visual material of a building by the instructor who is experienced both in architecture and yoga. The two-level learning (first listening and then practising on his/her own body) makes it much easier for the child to perceive these facts. The schedule is constituted of 21 different asanas which take approximately an hour to practise with the group.

Being the initial exercise of “Architecture Through Games” Workshop, YogArch was used as a warming up lecture to unite the group and introduce them the basic constructional principles of buildings. After practising the YogArch schedule, each member of the group was given a piece of play dough and shaped structural models with this material. It is observed that they managed to reflect the working principles of architectural elements into their models with the data they internalised in the previous section.



Fig. 1. YogArch

2.1.2 Geodesic Dome: Building Up a Shelter

The story of architecture has started when the human being built up a shelter in order to protect himself from his enemies and the impacts of the external world. In the beginning of this exercise on the second day, there was a short lecture based on the evolution of covering elements until the beginning of architectural history. Some visual materials of these systems were presented. Besides other structures some examples of geodesic dome, which is a popular covering structure in the midst 20th century, were also presented. By this way the children became familiar with the working principles of this structure. In the second half of the lecture the group builds up a geodesic dome, which is big enough to shelter all of them. This exercise was also beneficial for nourishing the team spirit as far as it required a cooperative working process. According to the scheme they were given, participants prepared newspaper tubes in two different lengths: 63 cm. and 71 cm. They used broom handles in order to keep the tubes in the same radius. Later they joined the tubes together using staples and coloured tapes. At the end they revealed a geodesic dome in which they could fit in altogether.



Fig. 2. Geodesic Dome

2.1.3 Costume Buildings: Wearing / Becoming a Building

In this activity the participants were asked to imagine themselves as buildings. Meanwhile they searched for the answers to some questions such as: “How would it feel like to be a building?” “How would I look like if I were a building?”, “How would I erect on earth if I were a building?”, “How would I breathe / see if I were a building?”, “How would I protect myself from the weather conditions?”

After thinking about all these issues they watched a visual presentation on plenty of different buildings serve to different functions, which were built in various periods and styles. The lecturer took all the members of the group into discussion during the presentation, so that all the participants found an opportunity to express themselves orally while observing other viewpoints. After a short break the children were given large blocks of paper and various

painting materials and asked to design building, which should turn into costumes that they would wear on. According to this inscription the children drew both the front and back elevation of their building designs that matched into their sizes. Once the drawings were ready, they were cut according to their outer contours and two sides were matched together. This way, they were ready to be worn by the designer. At the end of the day there was a costume buildings parade.



Fig. 3. Costume Buildings

2.1. Second Workshop: Building Energy Museum with Little Architects

This workshop was carried out as a part of “Children’s Atelier Series” of Santral İstanbul – Energy Museum, on January 2010, in İstanbul. In this workshop, at first participants make a short tour inside and outside the building for observing the architectural elements forming the museum building. The group discussed on the working principles of these structures and tried to experience them on their own bodies by YogArch (which is explained on the previous workshop). Then, according to the scheme that they were given, they made a scaled model of the outer shell of the building, using balsa lath and copper wire. The final product came out by teamwork of all participants.

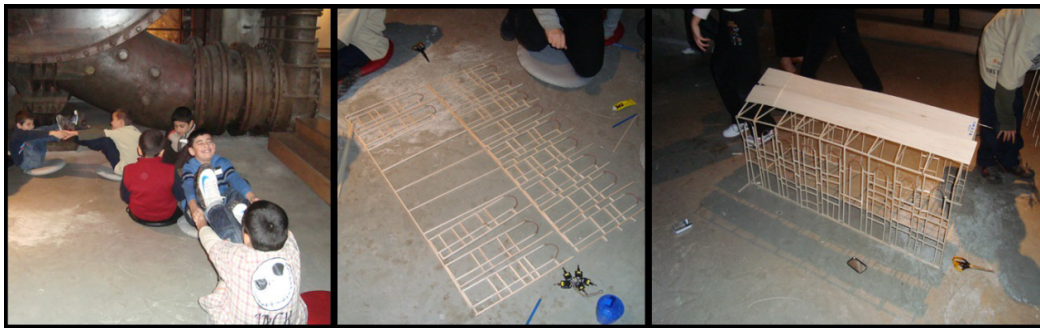


Fig. 4. Building Energy Museum with Little Architects

3. Conclusion

All of the workshops discussed in this paper were aiming to introduce different aspects of architecture to children and make them familiar with the issues of built environment. The first example was a three-day long experience and in each step the evolution of children’s consciousness on environmental and architectural cognition could be observed. Each day they were reflecting the knowledge they have gained in the previous levels to their work. “YogArch” was a practical way to understand constructional details, which is especially important in countries like Turkey, which are on seismic zone. “Geodesic Dome” was a hands-on activity about building an architectural structure. The participants experienced the process of vitalising an architectural design. “Costume Buildings” was beneficial for trying to reflect the imagination and creativity on a concrete building design keeping the structural facts on mind. The one-day workshop, “Building Energy Museum with Little Architects” was a more compact experience on perceiving structural elements, proportion and scale. All of these examples gave a clue about the methods of rising awareness on environmental issues. They inspired to create a more detailed and inclusive

curriculum on built environment in order to lift its effectiveness and spread the positive impacts to a wider populace.

References

- Cox, L. (AM, UIA President). (2009). *International Union of Architects Copenhagen Declaration*, 7 Dec. 2009
Retrieved from www.uia-architectes.org
- Otero, M.D.L., Mira, R.G. (2003). Action Competence in Environmental Education. In Otero, M.D.L., Mira, R.G., Martinez, J. R. (eds.), *Culture, Environmental Action and Sustainability* (pp: 71-83). Germany: Hogrefe & Huber Pub
- Peck, M. (dir.) (2002). UIA Built Environment Education Guidelines. *UIA International Work Programme "Architecture and Children (Built Environment Education)" 2002*