Play Aspect in Architectural Design Education

İpek Yürekli, İstanbul Technical University, Department of Architecture – Türkiye

Abstract
This paper focused on the character of architecture and its relationship with play in order to evaluate its utilization in architectural design studio. It is striking to see that both share certain characteristics: contradictions, ambiguity, open-ended nature, the coincidental, human relations, and flexibility. These abstract concepts that are integral parts of architecture but difficult to evaluate in education can be opened up to discussion and experiment by play approaches. Play belongs to education with the reality it generates with a system of rules; as well as with the playful attitude where flexibility, intuition and insight are important aspects. This approach can also be seen as a measure against the danger of objectifying education and leading it away from its nature. A well designed play that is prepared and applied carefully is a fine tool for the education of candidates of architecture who are trying to improve their qualities of developing strategies for a distant future in the changing environment of architecture.

Keywords: Architectural Design, Education, Play, Alienation, the Ambiguous

This paper focuses on the intersection of the concepts design, education and play. Architectural design is involved in the design of experiences, therefore it speculates upon an unknown future. This speculation requires tackling the ambiguous. In one respect, the strength (quality) of architectural design is parallel to its relationship with the ambiguous. The designer has to evaluate a reality that cannot be represented or defined concretely in her design. This approach leads to developing different perspectives, leads to an evaluation of the society, in other words, leads to alienation. Play, as a reality with its own rules other than the generally accepted ones, gives the opportunity to people to temporarily alienate themselves from the everyday world. Thus, play can be seen as a valid educational tool in architectural design education.

Besides alienation, deriving from the generation of a reality other than the physical and concrete reality, the concept of play can contribute to education by unleashing a playful attitude as a source of flexible, spontaneous and intuitive behaviors as a result of its informal procedures. Ambiguities within the concept of play as well as the tensions generated by the contradictions of truth and lie, good and bad, serious and cheerful, definiteness of rules and ambiguity of results can help to understand the nature of architecture.

The success of architectural design education is very hard to evaluate since it is meaningful by its contribution in the long run and also since it includes a number of variables such as the studio environment, the nature of the work completed, environmental factors, instructors, students and other participants. The instructors define the main structure of the course, however the application of different programs by the same people or the same program by different people leads to different processes and results. The works accomplished are meaningful within the whole, not independently. The overall organization, primary goals and approaches are the basic determinants.

Primary goals define the structure and application of the program and also the discussion around the work in the studio. The program and the work in the studio are more meaningful by the discussions they generate and how they are tackled more than the end results.

We see that play approaches are commonly used in contemporary architectural design studios especially to motivate the students. Even beyond motivation, because of the importance placed on fun, play and playful approaches have become some sort of fashion. However, it is very important to determine the purposes of play-like and playful exercises and their relationship with the overall program. One of the most important characteristics of play is its temporary nature and it must be remembered that continuous playfulness will destroy the meaning of alienation.

The nature of architecture

Architecture is complicated by character. Architecture includes concrete elements such as building, material, structure; abstract elements such as time, space, character; measurable elements such as topography and finally non-measurable elements such as people, nature, use and event simultaneously. According to Cook (1996) the mixture of measurable and non-measurable elements makes architecture open ended, exciting and disturbing at the same time.

One of the striking contradictions of architecture is between its existence as a concrete entity and its possible definition by invisible elements. According to many interpretations architecture exists with the invisible. According to Shepheard (1994) architecture is about ‘things, which are invisible but have character’. Frascari (1991) mentions that the task of the

architect is to turn the invisible into visible. The tension between the visible and invisible begins with the intention of the people to give a meaning to the life and the world.

The relationship of architecture with arts can be discussed within this context. Hejduk summarizes the main themes of architecture as emptiness, nothingness, air and solids and gives the example of Michelangelo's Bacchus. According to Hejduk, people believe that this statue is breathing. How people can be persuaded that a piece of marble can breath should be important for architects (Hejduk, 1996). Solidity and frailty are side by side in architecture as in the arts. When explaining architecture, focusing only on the concrete matters remains unsatisfactory.

Many interpretations resemble architecture with music. Puglisi mentions that Richard Rogers resembles Pompidou Center to jazz music: 'each piece is excellent but at the same time flexible and open ended'. He extends this description by reminding: 'the characteristics of jazz as spontaneous, constant re-creation and improvisation'. It is important that the metaphor is based on characteristics and content more than forms. According to Pater all arts try to resemble music, since music is the most intangible, invisible and the most abstract (Monaco, 2000). Architecture is on the far end of Monaco's spectrum in terms of abstraction. This spectrum suggests that the ordinary and the one related with usage gets away from abstraction. Monaco's perspective is based on an 'old' understanding of arts which differentiates between them. Today the boundaries of arts are destroyed and definitions have changed. In today's art anything and any object can achieve the status of art-object in any given space and environment (Boynudelik, 1999). A mode of art exists that is in close relationship with the ordinary and based on the concept of 'event'. Art is not an object anymore but an environment relating to its location. Influenced by Dada, Situationist International and Fluxus, this approach brings arts closer to architecture, not architecture closer to arts.

Connah (2000) suggests that architectural events enable us to derive meanings from the world and our environment, just like poetry and literature. Events help us to perceive our location and time. According to Virilio (2000) world history and even 'time' is a landscape of events; they are the events that accumulate to create history and we mostly remember. Tschumi's definition 'eventful architecture' is part of architectural terminology by now. Tschumi differentiates between events and architectural program. Programs include expected

behaviors and usages; on the contrary, events contain the unexpected, they uncover the hidden potentials embedded in a program, in a place, in a situation (Tschumi, 1994). In his design for Lerner Student Center Tschumi had located mailboxes of the students centrally to facilitate spontaneous interaction, in other words he tried to generate unexpected events. However, since communication over the Internet has become the major mode of communication at the time of completion, this central location is not used anymore. Events are surprising and can be planned only to a certain extent. Thus, architecture can be taken beyond the intentions of the architect. Karatani (1995) also mentions that architecture is based on events, making it ambiguous and impossible to anticipate. Architecture exists with the intersection of coincidences (de Sola-Morales, 1997). Products of architecture come to exist and become meaningful with the events they embrace.

Karatani resembles architecture to mathematics because of its unforeseen and ambiguous nature. Architecture obtains this character since it has multiple participants and since it is not an independent design. The architect faces different participants, 'the other', in other words she faces the unknown. For each participant there is a different set of rules. Architecture is a means of communication; therefore it cannot have predefined rules (Karatani, 1995). Agrest suggest that architecture is in the transition area between design as a closed system and non-design as a result of various cultural systems. Architecture is an open-ended system with its multiple variables and ambiguities (Agrest, 1991).

Epistemology is insufficient in explaining architectural knowledge. In order to better understand design processes, besides epistemology, open-ended processes such as speculation may be more relevant, and this approach must be reflected upon the education as well (Malecha, 1998). According to Rhowbotham (1995) architectural education focuses on the learning of thought processes, thus speculation and interpretation is unavoidable. Speculation covers both the interpretation of the existing and the forecast of the future, thus it is important for both architecture and its education.

The candidate architect must develop her skills of speculating about the future. As a core course in architectural design education architectural design studio must be able to discuss other than concrete and objective aspects to be relevant for the open-ended, flexible, changing and ambiguous characteristics of architecture.

In architectural design education the criticism and evaluation of works accomplished plays a major role. The subjectivity of design evaluations is a matter of discussion for many architectural institutions and is unavoidable (Frijns et al, 1994) since architecture is a system, which is simultaneously objective as well as intuitive and subjective (Friedman, 1975). The attempt to turn evaluations more objective by emphasizing the objective qualities of architecture mostly leads to discussions and products that are incongruent with its true nature.

Instructors of architectural design studio must take precautions against the danger of leading away from the true nature of architecture in order to objectify the education. Play, as a new reality generated with a system of rules as well as the playful approach emphasizing flexibility, intuition and insight can be a part of architectural education to use the potentials of its abstract, immeasurable, unpredictable and ambiguous characteristics.

Architecture and play

Architecture is related to play frequently. Its character of being subjective, open-ended and based on rules as well as the informal aspects of the design process brings architecture closer to play. Wittgenstein describes architecture as a play where rules are defined while playing (Karatani, 1995). According to Wilson, Wittgenstein is interested in the rules, its commonly accepted values and the structure of play. However, there are other aspects of architecture that resemble play: will to play, joy of the accidental, accomplishment without being forced into and pleasure (Wilson, 1992). The tension generated by challenging its rules and limitations leads to higher levels of satisfaction and pleasure in play, similarly in architecture by challenging the existing boundaries there is the potential for new experiences, new lives and new environments.

The similarity between the processes of problem solving and puzzle solving is the basis for one of the analogies between architecture and play. A major rule for puzzle solving, getting out of mental constructs is the first step for creation of a valuable architectural solution. According to Akın and Akın (1998) the emergence of the surprising mental jump in puzzle solving they name the ‘aha! effect’ can be explained as being aware of a new frame of reference. Finding new frames of reference means redefining and recreating the problem. From this perspective, puzzle solving and complicated design processes contain similar mental behaviors.

The interpretation of architecture as the creation of a new whole by bringing numerous pieces together is important for the analogy of architecture and play. Corbusier mentions the playfulness in the skillful, correct and mystifying bringing together of the masses by the architect (McCarter, 1987). According to Frascari, many architects play a game: a game of bringing together building elements as puzzle pieces (Frascari, 1991).

By its nature, architecture cannot to be played alone. On the contrary, teamwork and communication are required for architecture. They are the most important characteristics that make architecture more play-like and similar to team play. Students of architecture need to gain self-confidence to express their individuality at the same time they must develop qualities enabling them to become members of a team (Potts, 2000). Ambiguity, change and unexpected situations as a result of the interference of the others are valid aspects for both architecture and play. Play develops abilities of human relations, thus it contributes positively to the performance of a team (Elgood, 1997). Facilitating members of the team to trust each other, leading them to be more flexible and giving a high morale to the team are positive contributions of play approaches to teamwork. (Newstrom, Scannell, 1998). As in team play, in architecture also the thoughts, behaviors, actions and the future possibilities of other people need to be kept in perspective; decisions shall be made according to intuition and insight.

Bender resembles the approach of the architect to her work to the approach of the player to play; in both cases the person can generate alternatives by adopting herself to play, as long as she understands the rules, the moves and other players. Good architecture, as good play, must be flexible enough to allow its players flexibility of movement (Bender, 1979). The ability of spontaneous decision-making is important for architecture as other professions. Play encompasses an unexplainable chance factor (Slobodkin, 1992) as well as certain spontaneity as a result.

Another analogy between architecture and play is related with the working methods of architects. The tools architects utilize to understand, transmit, explain their ideas are small versions of the real thing, reminding children’s plays and toys (Rybczynski, 1990). Designing is a form of play since it involves creation of a reflection of the real world (Hampden-Turner,

1996). Architect's thinking involves prediction of potential events, situations in the designed environment, which is not very distant from playing imaginary games.

The relationship of architecture with reality is the basis for one of the similarities with play. Architecture tries to create a new whole, a new reality and play has its own reality outside our reality. Therefore, architectural education aiming a reality in the distant future is a field where the relationship with play is felt very strongly.

Play as a tool in architectural design education

Design education constantly questions the validity of real and reality. Each product has different realities related to its perception and its relationship with the whole system (Watson, 1985). Such realities that co-exist but also contradict each other are important concepts for architectural design and its education. West believes as an integral part of play chance factor and spontaneity are valuable in education. The over-emphasized importance given to rationality in the education of construction technology destroys many bright ideas (West, 2001). One of the important goals of architectural design studio is to open up perspectives for those uncanny ideas that are disrespected in an attempt to be rational. In this respect, in many design studios, play is integrated as an approach and an attitude. Play allows realities to surface other than the normal and current realities.

The unreal and ordinary aspects of play may allow the student to gain self-confidence (Aytaç-Dural, 1999). Play is important since it personalizes education (Greer et al, 1977). Gutenschwager suggests play raises the confidence and the awareness of the person allowing her to be prepared for social change (Gutenschwager, 1979). By this preparation people will also gain a certain flexibility and the ability to make spontaneous decisions, allowing them to adopt to new thresholds of change.

Many studio instructors generate games to be used in architectural design education. According to Sanoff, who has developed games for the understanding strategies, playing is an approach to problem solving. The temporal aspect of the problem is compressed to enable a better analysis of the main characteristics. Play is a category of simulation. Simulation is a process where a complicated problem is defined and its nucleus is emphasized. Games sharpen perception and allow people to recognize things that cannot be perceived because of

familiarity. Simulation can make people see the possibilities of solution in a given problem by focusing on the nucleus of a situation or system (Sanoff, 1979). The playful mental curiosity is one the best tools to arrive at reality since play is reality in a minimized mode (Slobodkin, 1992). The advantage of play is the focus on the main problem, the core.

The development of architectural simulation games allow the students of architecture be in control of complex design processes. Application of architectural simulation games in architectural design education is related with the destruction of the belief that the architect is a 'lonely creator' (Bonta, 1979). The first examples of such games have been used in design schools at 1960's (Green, 1979). May (1979) questioned the relevance of architectural simulation games in education and came up with aspects leading to the success of the game: content, what it teaches, play provocation, clear and open rules, time use, allowing different strategies, facilitating independent thought, joy. Duke (1974) mentions playability and flexibility as important dynamics of play. According to Sanoff (1979b) main components of games are rules, concepts and methods. A good game is formed around these dynamics. Play simultaneously helps and distracts educational processes: motivated students are more productive; however a good game needs long and detailed preparation and informal environments are hard to control (Abt, 1970).

Play approach may not be successful at all times. Inability to participate stemming from a lack of confidence of the student or an inflexible instructor may wipe out the benefits of play (Newstrom, Scannell, 1980). Thiagarajan list the situations resulting in an unsuccessful play application: 1. more or less time than necessary, 2. unsatisfactory preparation, 3. too many or too few players, 4. too harmonic or non-harmonic participants, 5. a case of 'nonsense' getting out of control (Thiagarajan).

Games of different scales used in architectural design studios enable the student to alienate herself and also to render the studio environment informal. According to Abt (1970) games are important as educational approaches because they let people evaluate and credit their intuitions which are difficult to measure and teach.

Conclusion

This paper focused on the character of architecture and its relationship with play in order to evaluate its utilization in architectural design studio. It is striking to see that both share certain characteristics: contradictions, ambiguity, open-ended nature, coincidentality, human relations, and flexibility. These abstract concepts that are integral parts of architecture but difficult to evaluate in education can be opened up to discussion and experiment by play approaches. Play belongs to education with the reality it generates with a system of rules; as well as with the playful attitude where flexibility, intuition and insight are important aspects. This approach can also be seen as a measure against the danger of objectifying education and leading it away from its nature. A well designed play that is prepared and applied carefully is a fine tool for the education of candidates of architecture who are trying to improve their qualities of developing strategies for a distant future in the changing environment of architecture.

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Dr. Ipek Yürekli teaches first year architectural design studio in ITU Faculty of Architecture. Her master thesis is on 'Architecture and Topography' and her PhD dissertation is on 'The Play Aspect in Architectural Design Education'. She has been working as a research assistant since 1992 in ITU Faculty of Architecture. She has participated in several national and international workshops as organizer and moderator. She won the National Architectural Price of the Chamber of Architects of Turkey (ABS headquarters office building - Yürekli, Aslan, Altun, İnceoğlu, Aslan) in 2002. She worked as a visiting scholar in NCSU School of Design between 2001-2002.