An Analysis of the Fantastic Fiction on Conceptual Space

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Abstract: Factors that influence architecture students as they develop ideas into concepts and concepts into images are subjects of curiosity. This rising interest overlaps with attempts to comprehend cognitive aspects of the design process through a careful analysis of cognitive processes that are central to concept formation. Given the assumption that these cognitive processes exist, this study will explore what kind of information first year architecture students choose from the outer world and to what extent they are influenced by this information, in developing concepts and transforming them into space. It will be shown that ideas which are obtained from the outer world have creative impacts on the design process especially in developing concepts and then, their transformation into space. “Alice in Wonderland”, both the book and the cartoon, is chosen to analyze this impact. It is observed that individuals perceive differently due to varying degrees of importance they attribute to the objects of perception, i.e. selective perception. These differences in perception improve students’ creativity. Findings of the study show that providing students with multiple perception options by introducing fantastic fiction in the beginning of the design process and starting the design process by generating concepts through fantastic fiction can be used as a method to boost the creativity of students in the first year architectural design studio.

Key words: Concept · Conceptual space · Fantastic fiction · Selective perception · First year architectural design education

INTRODUCTION

“When I used to read fairy-tales, I fancied that kind of thing never happened and how here am in the middle of one!” said Alice [1]. Differentiating reality from tale is only possible by conscious processing of what is read and thought of. Being exposed to new experiences and environments and then, contemplating about them enhances the ability of perceiving images around one’s self. World is something one experiences before one contemplates about it. Merleau-Ponty [2] argues that there is no seeing without thinking; but it is not enough to think in order to see since the act of seeing is a conditioned idea which emerges as a result of what is happening in one’s body.

Architectural education also starts with thinking. Design process starts and develops with ideas. Productivity and creativity in design education is not only about analyzing concrete information, but also involves unlimited abstract ideas that are complementary to concrete information. In fact, design process is a continuous attempt to envision what is aimed to be achieved in addition to being a continuous act of contemplation. Given that design process is constituted by cognitive processes, then the transformation of ideas into concepts takes place in these processes. Transformation of ideas into concepts is the design stage which is most associated with creativity and productivity from the cognitive point of view. Therefore, it is important to start the design process with concept generation and making this process attractive to students in their first year architectural design education. Seeing is not enough to contemplate for success in architectural education. It is possible to investigate through various means the transformation of what students see into ideas and that of ideas into design process. Theoretical framework of this study is based on some concepts that are mentioned in the methodology. These concepts are developed in the following order: space, concept, conceptual space and fantastic fiction.

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**Space, Concept, Conceptual Space:** Space is where habits and customs evolve into experience and emptiness finds a meaning through consciousness. In addition to being understood as physical confinement of an area, space has also visual and symbolic dimensions. Architectural space does not only exist by itself, but is also a conceptual tool used to comprehend its own reality [3].

Akarsu [4] defines concept as the embodiment of common characteristics of an object or a group of objects in a single word. Ozankaya [5], on the other hand, argues that concept is a reflection of objective environment on human mind that enables understanding the real meanings of words and generalizations about characteristics of events and processes after a full comprehension of their essence. Klausmeier [6] et al. developed conceptual learning and development model as a guide to learning concepts. This model is composed of four subsequent levels. The first level, i.e. "concrete level", is when the individual distinguishes an object, event or a process from others and pictures it as such in his/her mind or represents it in a particular way. Individual cognitively generalizes and abstracts different forms of the same object, event or process in the second level that is known as "identity level." According to John Locke, abstraction is a process through which ideas that are developed from some objects are isolated from all existential forms and conditions [7]. Third level, i.e. "classificatory level" is when different conditions of the same class are equalized and named. Concept and its defining elements are defined and explained at the last level that is called "formal level" [6]. Cognitive characteristics of individuals might show differences as well as similarities during these levels of concept formation. In addition, time needed for the formation and development of these levels in one's mind might also differ. For this reason, type of formation and duration of these levels are considered to be unique for each individual.

Design process begins with a concept, which can either be well-formulated or ill-conditioned. Thinking of design process as separate from concept formulation would risk the success of time spent between the beginning and end of design process. Imagination which is the ability of designing an object when that object does not physically exist and concept which is a momentarily classification of information are inseparable in design process. Design is an act of forming a meaningful whole through combining visual and factual concepts. Susanne Langer argues that design "unifies formulations of images and emotions and simplifies and mobilizes intuition itself" [8].

![Fig. 1: Levels of attaining a concept and related uses of the concept [6].](image)

Schulz [9] defines four different types of space: "Pragmatic Space" is based on spatial information gathered through daily physical activities, "Perceptual Space" is perceived by senses and created through tendencies that differ from one person to another, "Existential Space" is based upon cultural experiences and images developed by the person about his/her own environment and "Conceptual Space" is a collection of cognitive diagrams about the world and spatial relations within it.

Schulz argues that individuals do not only move and act within space but also perceive it and contemplate about it. An intuition or an image occurring in an existing space evolves into a concept and as such occupies a conceptual space in one’s mind [9].

**Space-Fantastic Fiction in Cinema and Tale:** Concepts and ideas which are essentially products of imagination and do not abide by the rules of nature are considered to be fantastic and are extensively encountered in movies and fairy tales. “Fantastic” as a form of art started to find its place among other arts in the 19th century. Wieland Schmied defines fantastic as anything that falls outside of the conventional understandings of its own time. H.P.Lovecraft, a well known fantastic fiction author, argues that impressions of a fantastic work of art on the individual are what matter.

Among fantastic works of arts come tales, cartoons and some cinema films. Reader is moved on to an imaginary world as the tale starts with its well-known phrase, “Once upon a time...” Information provided through a tale is shaped with the reader’s own imagination. Incomplete description and representation of
space in tales is mostly complemented with reader's imagination. Cinema, on the other hand, is more concrete than tale. It is impossible in cinema to narrate or represent an idea or an emotion that is not imagined [10].

Space is chronologically compartmentalized in cinema and thus, becomes a part of time structure mainly because of the fact that cinema films are narrated along particular timelines [11]. As such, spatialization of time within the film creates real and artificial spatial relations between film and its audience. Space in a film has also a moving character like objects and individuals acting within this space. As a result of this moving essence of space in a film, the audience also becomes active. Audience follows space through the lenses of the characters and thus, space is perceived three-dimensionally alongside with the changes in the movement and sight of the characters [12]. Feeling of infinite permanency created as such is added to the freedom of the movement of the camera. As a result, space becomes fluid. It is also possible to enable the audience with a sense of mobility through simultaneously and spatially different stories that exist in the film [11].

A spatial approach to architecture and cinema shows that both are shaped by the body that exists in space and by the movement of this body within space. Architecture and cinema come into existence through operational emergence of space-body and movement. As a result, spatial experience is realized [13]. Spatial experience is the attempt of individual to perceive, recognize and name space through movement [14].

**Case Study**

**Design Process and Methodology:** Primary aim of the final studio exercise of the first term was to encourage the first year architecture students of Istanbul Kultur University to explore their intuitive capabilities to process abstract, immeasurable and unpredictable information which is an important objective of architectural education. “Alice in Wonderland (Lewis Carrol 1832-1898)” which has an illusionary dimension due to its deployment of abstract concepts such as time, space and identity has been introduced to them as part of this project. Although Alice in Wonderland is known to be a children’s tale, it is a book of logic and mathematics written for adults. It was also screened in cinema as a cartoon. This study named as “Space of Alice” has been designed to improve creative and intuitive potential of students at the end of a four-week period.

This study aims to increase the ability of students to investigate in full freedom ways of self-expression with the help of familiar fields. Students’ ability to transfer their ideas to different mediums through the aid of literature, film and drama is important to enhance creative thinking. In addition to providing students with multi-layered freedoms in the design process, using tools of architectural narrative is equally important as one of the primary aims of first year architectural education. In this context, the script of Alice in Wonderland given to students has provided them with the ability to enlarge their vision beyond conventional and traditional ideas as well as assumed facts.

![Fig. 2: Design process of conceptual space study](image-url)
Students were asked during this 4-week study period to read Alice in Wonderland and exemplify both verbally and oral, with whom Alice meets and where she meets them. Cartoon was screened following this exercise. After these two sets of exercises, students were asked to match what they remember from what they read with particular scenes from the cartoon. Afterwards, each student was asked to discuss the characteristics of this particular scene with reference to the space it takes place and characters in it. This kind of selective visual and audible perception would reflect itself as a source of information on students' designs. Students were invited to develop concept(s) from their self-chosen fantastic fiction on the basis of these discussions. All these discussions about concept(s) were spatialized through a model called Space of Alice. This conceptual space is based on the script of self-chosen fantastic fiction. Students were asked to deploy abstraction in narration as well as four stages that are used in the development of concepts. Abstraction was used as a method of representation in the formulation of conceptual space. This particular method of representation is a cognitive stage of the design process in which the individual works with a concept in its simplest form. Abstraction helps students to represent in Space of Alice a prominent characteristic or a remark.

Differences in cognitive skills of students and their level of perception are taken to be external factors and each student is evaluated in comparison to average values. Conceptual development has been approached in these evaluations in its entirety instead of being decomposed into four different stages.

**Analysis/Synthesis/Evaluation:** Designs developed through these studies were evaluated with reference to examples that are believed to reflect Alice's relationship with the characters she meets. Alice follows a rabbit in the first example and falls down into the rabbit hole. Concepts such as emptiness and curiosity that were created by the student who chose this particular scene both in the cartoon and the book were spatialized and re-interpreted as Space of Alice.

Second example concerns the scene where Alice meets the Mad Hatter. At the tea party organized here, Alice joins the non-birth party where time never passes. Space is confined to the surroundings of the party table. Non-changing time constitutes the concept of this space.

Alice meets with the Cheshire Cat in the third example. The student spatialized Alice's confusion at the moment of this meeting. Concepts like confusion and getting lost were transformed into conceptual space.

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<thead>
<tr>
<th>Film Reel / Fantastic Fiction</th>
<th>Concept</th>
<th>Trace</th>
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<tbody>
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<td>The rabbit hole went straight on like a tunnel for some way, and then dipped suddenly down, so suddenly that Alice had not a moment to think about stopping herself before she found herself falling down a very deep well. (Carroll, 1865, 18).</td>
<td>Hole</td>
<td>Conceptual Space</td>
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Table 1: Space of Alice 1: The Rabbit-Hole

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<td>&quot;Well, I've hardly finished the first verse,&quot; said the Hatter, &quot;when the Queen jumped up and bewildered, 'He's muddling the time! Off with his head!' How absurdly simple!&quot; exclaimed Alice. &quot;And even since that,&quot; the Hatter went on, &quot;in a monotone voice, he won't do a thing I tell him always as a consequence.&quot; (Carroll, 1865, 20).</td>
<td>Unchanging time</td>
<td>Conceptual Space</td>
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Table 2: Space of Alice 2: A Mad Tea Party
Table 3: Space of Alice 3: The Cheshire Cat

The Caterpillar and Alice looked at each other for some time in silence; at last the Caterpillar took the hookah out of its mouth, and addressed her in a languid, sleepy voice. "Who are you?" said the Caterpillar. This was not an encouraging opening for a conversation. Alice replied rather shyly, "I—I hardly know, sir, just at present—at least I know who I was when I got up this morning, but I think I must have been changed several times since then." (Carroll, 1865, 8).

Table 4: Space of Alice 4: Advice from a Caterpillar

"My name is Alice, so please your Majesty," said Alice very politely, but she added to herself, "Why, they're only a pack of cards, after all. I needn't be afraid of them." (Carroll, 1865, 12).

Table 5: Space of Alice 5: Meeting with the Queen
Fourth example is about Alice’s meeting with the Caterpillar. Alice who moves among dimensions continuously questions who she is and where she needs to go and thus, is in an identity crisis. A space is created with the inspiration taken from the smoke produced by the caterpillar.

Alice meets with the Queen in the fifth example. The Knave of Hearts and characters like Alice and Queen take their places in the fantastic fiction scene that was created with reverence. Concepts like reverence and The Knave of Hearts running after Alice as manifestations of the understanding that each and every way is held by the Queen become prominent in this example.

**CONCLUSION**

A careful analysis of these examples show that, remarks chosen from selected scenes in Alice in Wonderland are transformed into conceptual space. This result shows the success of students to develop concepts on the basis of remarks chosen from the scenes and to project these remarks on three-dimensional design. It is, therefore, safe to assume that starting design process with fantastic fiction and gradually increasing information that would improve visual perception would enhance students’ creativity. Fantastic fiction is shown in this study to have an affect on conceptual space. Therefore, introducing first year architecture students’ fantastic fiction and concept would increase their selective perceptiveness during the design process.

One of the requirements of design process with concepts is realizing the contribution of imaginative capacity on design process. This study shows that imagination and concept development empowered first year architectural design students before they started the design process and they developed series of concepts through pre-designing the structure on the basis of designs inspired through their experience with Alice in Wonderland. Imaginative options that students have under their command decreased as a result of their concentration on a specific object or topic through the concepts developed. This resulted in an improvement of perceptions of first year architecture students and emergence of various alternatives that allow choosing particular perceptions that complement concepts. This method appears as a tool to increase creativity by reducing constraints during first year architecture education.

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**REFERENCES**