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# Use of the semantics of typography in architectural design education

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**Abstract**

Visual representation of architectural products and processes has consistently attracted the interest of design researchers and educators. Composing these visual materials into a striking and harmonious presentation is a creative design problem itself. This study describes a Basic Design Studio exercise that explores the boundaries of practice in representing visual material through the semantics of typography. Using only typography, students rephrased a 'transparent' scene of the built environment they themselves photographed. A subsequent analysis revealed that the exercise was effective in transposing the semantics of the selected visual using typography.

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*Keywords*: architectural presentation; typography; architectural education; basic design education

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## 1. Introduction

Architectural design education is based on design studio courses. Design studios require an environment that fosters creativity and experiential learning. The main objective of design studios is to give the students required skills for creative problem solving and critical thinking. Studio participants interact with facilitators as well as other students throughout the design process which improves their communication skills and group working capabilities. Schön (1985) describes the architectural studio as a prototype of 'education for artistry and problem-setting'. The design studio environment is a place for students to learn both about designing and about learning to design (Schön 1985).

Basic Design is a course in which Schön's description of the design studio environment holds. The course broadly encompasses fundamentals of design theory in general, as well as the creativity process in particular. In addition to the wide range of theoretical and methodological issues of design, architectural presentation theory is also covered.

Architectural presentation that engages with visuals of the final product as well as the design process has always been of interest to design researchers and educators. The visuals of the proposed final product are usually structured as models, sketches, 3D computer generated images, hand drawn perspectives, schemas, diagrams, project reports, and computer animated videos. How to compose these visual materials into an eye-catching and harmonious presentation is a creative design problem for the designer.

Most institutions providing architectural education teach architectural presentation techniques in their curriculum in a separate course or as a subject of a related course. These courses usually cover theoretical topics of graphic design basics such as, the concept of layout, typography, and communication fundamentals. The theory based teaching approach may or may not result in students successfully gaining solid presentation skills. Nonetheless, the process of designing a presentation is a very promising and entertaining way for students to learn how to create and design. Although often omitted in architectural education, typography has great potential as a practical tool for teaching a number of desired presentation and design skills.

Harkins (2010) provides a succinct description of typography as "the art or craft of arranging letters and words." He elaborates; *'typography also allows for the arrangement of letters and words (along with other visual matter) to be reassembled and replicated as few or as many times as is necessitated by the demands of what is to be communicated (the content)'.* (Harkins 2010, p.14)

Although text is a meaningful entity by itself, that meaning can change in the way its pieces are combined and composed. In other words, the meaning of text is dependent on how textual material is structured. The semantic value of text in architectural presentation cannot be underestimated. However, the semantics of the textual material itself; in this case the semantics of letters and the typographic characters usually slips designers' minds. Letters actually have a subject matter of their own and this assumption might have a dramatic educational potential in terms of understanding the process of design. Cullen (2012) defines typography as a process, and a sophisticated craft, making language visible. Designers form language with type, and consequently words gain life and power. Typography has semantic and aesthetic functions. Type that serves both roles simultaneously can be considered successful (Cullen, 2012, p.12).

The Basic Design Studio considers text and typography as a vital component for representing ideas and the design product itself. Additionally, letters, typographic characters, and typography are potential educational tools in terms of understanding the process of design and creativity. Leeuwen (2006) suggests that typography can be interpreted as a semiotic mode that is systematic, and multimodal. Therefore, typography is not just textual, but possesses ideational and interpersonal meaning (Leeuwen 2006). Emphasizing multimodality, Nørgaard (2009) identifies a restricted focus on word-meaning in literary criticism that ignores the semiotic potential of typography. Thus, the authors suggest that typography and its material can be instrumental in translating and visually rephrasing images such as photos of the built environment and abstract compositions. A design exercise that utilizes the multimodal characteristics of typography is described below.

## 2. Design Studio Project: 'Expression of Transparency in a Typographic Poster'

This paper describes a studio project that aims to use typography and text as a tool for translating and rephrasing photographs of the built environment. 71 students participated in the project within the scope of Basic Design 2 class in the spring semester of 2012-2013 academic year. Students were asked to photograph 'transparent' scenes of the city, and then to visually rephrase these photos by using only typographic materials in a poster. Student presentations were documented on video as they presented their work and received constructive critique from facilitators and fellow students. Subsequently, these videos were transcribed and discussed by the facilitators.

The "Transparent / Typographic Poster" project was completed in 3-weeks in a design studio medium. The study was carried out as a group work and the groups were formed randomly by the facilitators with the inclusion of 2 or 3 students in each group. In total, 25 groups produced 25 posters. The final work was printed and also submitted on a CD containing the artwork.

### *2.1. Studio 1*

The "Transparent / Typographic Poster" project was carried out as a continuation of, and supplementary to the 'Transparent Model' study. Therefore, it would be appropriate to describe this study first.

In the "Transparent Model" study, the groups were asked to form a model of a 'transparent' design using the concept of 'lines in space'. The materials were wires, threads, boards and fabrics. The study was carried out in the studio environment. During the exercise, the instructors who acted as facilitators interacted with the groups about their ideas. The studies were completed and evaluated during the same day. The evaluation involved exchange of views by all the participants and facilitators, critiquing each other's work.

At the end of the studio, students were asked to prepare a digital presentation for the next studio, explaining the concept of 'transparency'. They were also asked to take 10 photos of the built environment representing the concept of transparency, and bring A3 size printouts to the following studio. These photographs were to be used for the "Transparent / Typographic Poster" project.

### *2.2. Studio 2*

The second studio of the project began with presentations of the concept of 'transparency'. After the completion of group presentations, participants and facilitators discussed the photos in terms of the concept of transparency. Photos that would be used during the next assignment were identified. Key criteria considered during the identification of photos were that they had to provide a link to human life and that they had to be original. Particular attention was given to select dissimilar photos for each one of the groups.

Following the identification of photos, the study was explicated to the participants. Within the scope of the "Transparent / Typographical Poster" project, participants were asked to: (1) draw sketches on the selected photo and simplify the photo using lines, (2) highlight the parts they thought were transparent, (3) place a second layer of sketch paper on the initial sketch, and to envisage how this highlighted new sketch could be expressed with typographical characters. During this expression, each group was asked to find a keyword that suited the transparency they observed in their own photos, and to use this word in their posters once or more than once in an altered color. Group members would agree on the color of this keyword.

After explaining the study, groups were allowed 45 minutes to discuss the design and prepare their first sketches in studio environment. Meanwhile, studio facilitators walked through the groups, listened to their ideas, and provided tips. At the end of the 45-minute period, initial sketches were posted. Class discussions were held, and the sketches were critiqued by the instructors.

Following these critiques, students were allowed to continue working on their designs. They were then instructed to complete their projects by the next studio by using typographical characters of varying nature, which they would cut out from printed materials such as newspapers and magazines.

*2.3. Studio 3*

The third studio of the "Transparent / Typographical Poster" project focused on evaluations. Photos selected by the groups, initial sketches prepared in the second week, and the final version of the project prepared using the cut and paste method were all posted together, and were subsequently discussed by both the facilitators and participants. The discussions focused on both the strong and weak aspects of the project. Distinctive features of typographic characters that were discussed were weight, expansion, slope, curvature, connectivity, orientation and regularity. Care was taken during evaluations that the latest version of the study involved hints of human life as in the selected photos, and that the typographical characters used were prominent in their color, size, pattern, etc. to give the intended impression.

Participants were asked to turn in a CD containing their initial sketches, the project itself, the selected photos, and a report explaining their project.

## 3. Student Work

The work of three different student groups are presented and discussed below

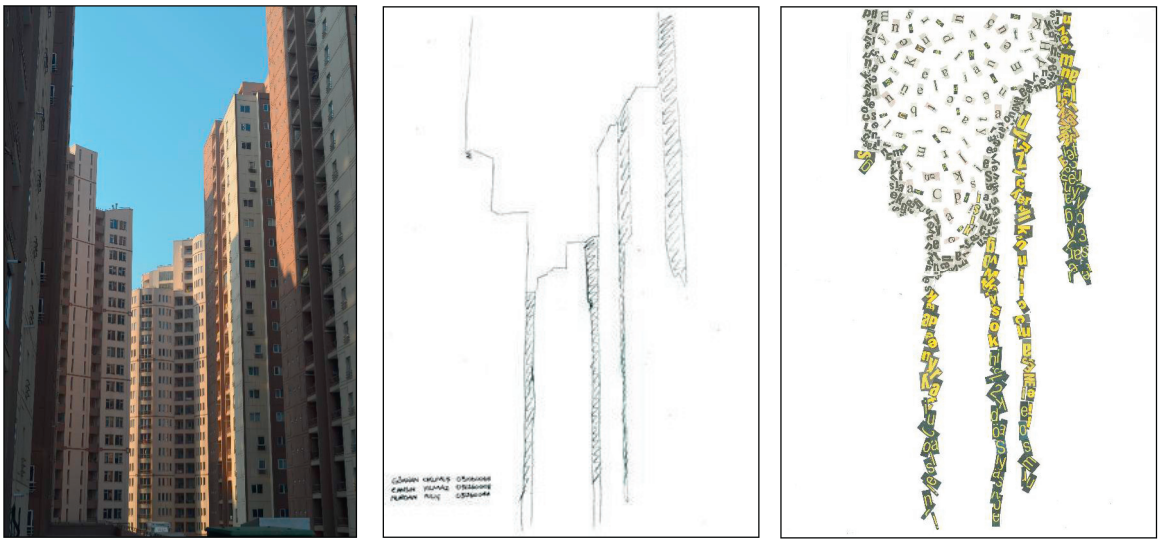


Fig. 1. (a) Photo taken by the students; (b) sketch (c) typography work

The photo used for the project is of a multi-story public housing site. The reason for selecting it was that the diffusion of light was hindered because the buildings were very high and close to each other (Figure 1.a).

In their sketch, the participants expressed the contours of the buildings distinctly, and identified solid and void areas (Figure 1.b). Next, they expressed the solid areas with large, dark, dominating typographical characters and the areas receiving sunshine with smaller, yellow and homogenous characters. Following the critiques they received during the initial evaluation, the students prepared an inverse of their first sketch. In this alternative

work, the areas that were solid were left blank, the sky was represented by homogenously distributing small and light-colored typographical characters, and the reflections of the sun on the buildings were expressed with larger, yellow-colored and dense-textured typographical characters (Figure 1.c).

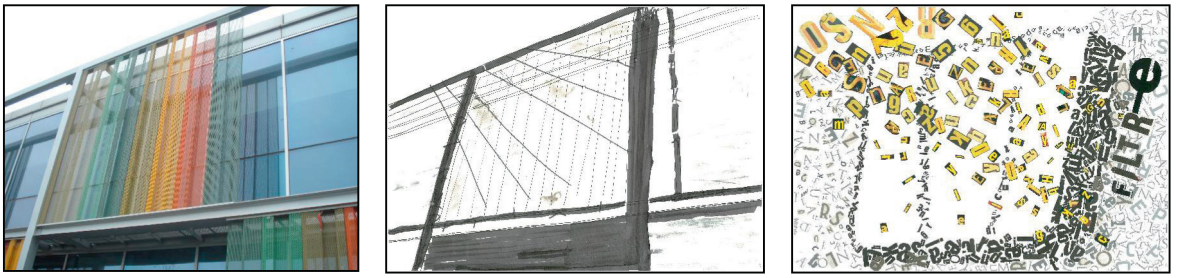


Fig. 2. (a) Photo taken by the students; (b) sketch (c) typography work

The photo used in the project displays the sunshades on the facade of an architectural school of a newly opened university (Figure 2.a). At the sketch phase, participants expressed the sunshades with spread out thin lines considering the transparent nature of the colored design elements, and the non-transparent parts of the mass with dark, thick lines (Figure 2.b). Taking into consideration the critique they received participants expressed light with small yellow typographical characters, and solid areas they had previously expressed with thick lines, with dark, thick typographical characters (Figure 2.c).

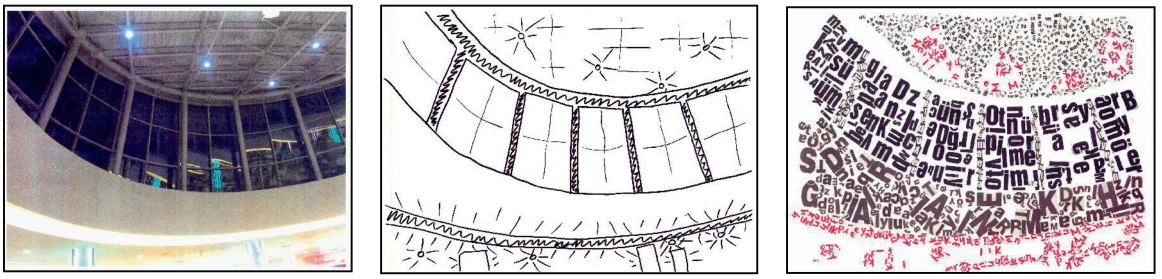


Fig. 3. (a) Photo taken by the students; (b) sketch (c) typography work

The photo used in the project displays the skylight of a shopping mall (Figure 3.a). The reason for selecting this photo was that since it was taken at night, the external lighting and internal lighting created a different impression than the customary impression of transparency.

At the sketch phase, participants traced the contours of indoor spaces and made the light fittings that illuminate the interiors more distinct (Figure 3.b). In the final part of the project, the students expressed the window openings with dark thick typographical characters, and the areas illuminated by artificial lighting equipment with small dense red characters (Figure 3.c).

## 4. Conclusion

The products of this design exercise reveal that architecture students are able to transpose the semantics of a visual, in this case one of the built environment, by using typography and its multimodal characteristics. Hausmann & Cullars (1998) contend that the design of typography, being artificial and not naturalistic in form, requires a certain kind of structural perception. It can be further argued that, architecture students are able to read into the logical and predetermined characteristics of typography, utilizing it to convey meaningful ideation.

Type not only carries information, but also elicits emotion (Cullen, 2012, p.12). Using the semantics of typography and its characters in architectural education, students are able to see, read, and visually rephrase their environment not only through colors, materials, texture, size, and shape as they are accustomed to, but also though letters and words.

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