BASIC DESIGN EDUCATION IN LANDSCAPE ARCHITECTURE

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Abstract
The basic design course, a 1st semester curriculum course at the Department of Landscape Architecture, forms the basis of design education as a part of landscape architecture education. The landscape design course, provided as part of the 2nd semester curriculum, is a continuation of the basic design course and allows basic design concepts to be transferred to landscape design. Similarly, courses for other semesters are also developed based on the knowledge and acquisitions attained through the basic design course. This article is based on the educational experiences that have been obtained in the basic design course administered at the Department of Landscape Architecture in the Faculty of Agriculture, Ankara University, between 2005 and 2010. The content and objectives of the basic design course, and the educational methods and the process used in the course are described; the challenges and problems faced with respect to the theory and practice of the course are presented. Additionally, instructions for education related to basic design are discussed, based on experience.

Keywords: design; basic design; design education; landscape architecture.

INTRODUCTION

Basic Design- the basics of design and rightly called the “Mother of all Designs” (Parashar, 2013). Basic design, which constitutes the core discipline of design and arts, is an area of study that requires unique teaching and abilities. Aside from being the stepping stone for the design and arts disciplines, basic design forms the foundation for further studies. Therefore, basic design education is both an important process within itself and a critical process that serves as an infrastructure that supports other design courses.

The basic design course is one where limitations are removed, abstractions are embodied, creativity is discovered, intuitional and perceptual capabilities are developed, and original ideas find shape. Therefore, basic design education is important for the development of the students’ skills for research, reasoning, characterization, association, and their abilities to apply what they learn and to work in fluctuating environments.

Basic design means the teaching and learning of design fundamentals that may also be commonly referred to as the principles of two and three dimensional design. The body of knowledge associated with basic design may be regarded as part of the general theory of teaching and learning design as practiced in many design schools and which has its origins in the classical design schools such as the Bauhaus (Boucharenc, 2006).

In the first year’s curriculum of every university art and design department, regardless of the fields of specialization, there is always a course called basic design which deals with the grammar of visual language. This visual language is the basis of design creation and a designer must be equipped with the knowledge of principles, rules and concepts of visual organization in order to enhance his capability in visual organization (Wong, 1993).

The basic design education, which is implemented as freshmen year studio training at schools of art, design and architecture, has a particular importance in developing students’ mindsets. In spite of its practical and contextual differences among the institutions worldwide, the

basic design studio commonly aims to constitute a particular design language and designerly skills to be internalized and used by the designer lifelong (Burkay, 2007).

Design is the most important and characteristics field of the landscape architectural profession. Because of this fact basic design courses are the most important and central part of the landscape architectural education occupying almost one quarter of the total educational load. Its purpose is to train landscape architecture students to develop independent thinking as well as creative design ability. Design is closely related to creativity. Creativity has been gained first of all basic design course and then landscape design course to the students of landscape architecture. Creativity, with all its social and physical connotations and implications, should therefore be the guide concept in the education of landscape architects. The basic design course, which is deemed to foster creativity, plays an important role in the education of landscape architects.

The landscape design course is a continuation of the basic design course, and allows the concept of basic design to evolve into landscape design. One initial purpose of landscape design is to apply basic design principles into the natural surroundings. Landscape design combines elements of basic design and science to create a functional, aesthetically pleasing extension of indoor living to the outdoors. The project I, project II, project III, indoor plants and design, planting design and design studio courses, as well, administered in other semesters, further develop on the knowledge and acquisitions attained through the basic design course. For this reason basic design is an integral part of landscape design and other design courses.

There is double character as a scientific and creative of landscape architecture. The peculiar character of the landscape architecture profession requires landscape architects to be familiar with both a wide range of knowledge from the field of natural sciences and artistic creativity at the same time. Detailed landscape design, creation of new spaces-new landscapes, and use of characteristic, alive landscape material as well as nature protection, landscape ecology and regional landscape planning require both a creative and a scientific approach (Gazvoda, 2002).

This paper focuses on the basic design education at the Department of Landscape Architecture in the Faculty of Agriculture, Ankara University. It is explained basic design education and pointed out challenges faced in basic design education. Also, suggestions on how to do well in basic design education are explained.

BASIC DESIGN EDUCATION

Landscape architecture education at the Department of Landscape Architecture in the Faculty of Agriculture, Ankara University, consists of two main bodies of knowledge, the theoretical and the practical studies. Lectures are given by the full-time staff and are supported different teaching methods.

The basic design course administered during the 1st semester of a four-year education is the critical course that forms the basis for design education. The environment where first-year students, involved in the activity of design for the first time in their lives, can collectively carry out the activities of research, analysis, reasoning, perception, seeing and comprehension, deduction, resolution, discussion and probing, is provided through the basic design course. In landscape architecture education, the basic design course presents an environment conducive to establishing the facts that the design process is one of reasoning that is open to visual perception, and in which the student is an instrumental part of the design process. Through research, analysis, reasoning, and experimentation, the students learn to design mentally, and to visualize their designs. By providing students with the opportunities to articulate, interpret, and critique their design work, they are encouraged to learn the skills relating to participation, association, and the ability to look at issues and problems in a multifaceted manner.

The basic design course is not one where only certain skills and techniques are meant to be administered. In order for the students to be able to find alternative solutions and to view their solutions in a critical and creative light, the course aims to teach students the tendency for curiosity, imagination, observation, research, and the ability to evaluate clues.

The basic design course curriculum includes topics such as basic concepts, elements of design, principles of design, visual perception, space, form and geometry (Table 1).

Table 1: The topics of the basic design course (Source: Author).

The topics	
Basic concepts	What is a design? How to design? How to develop the design process?
Elements of design	Point line, direction, plane, volume, size, form, value, texture, color
Principles of design	Order, unity, repetition, harmony, contrast, balance, emphasis, hegemony, continuity, hierarchy, symmetry
Visual perception	Organization principles of visual perception: proximity, similarity, transparency, figure-ground relationship
Space, form and geometry	Volume and third dimension, spatial concepts, defining space, relationship of form-mass, relationship of space-form-geometry, form and structure

The basic design education is concerned with teaching theory and applications, and is carried out in studios as interactive. The basic design course occupies 4 hours a week and is conducted theory and applications as a studio practice. The explanations for the designs to be realized and the topics for the tasks to be carried out are covered in the theoretical lecture; additionally, the students are required to perform research, as well. At the very beginning of the course before asking students to design anything, it was aimed to make them to be aware of the conceptual understanding of design. In the hands-on portion of the studio, the students are debriefed and provided with suggestions and clues; they are required to execute theme-based designs (Table 2) using design elements and principles. The students realize two and three dimensional designs (Table 2) based on previously determined subjects and themes. In the weekly the hands-on sessions, the design efforts are evaluated jointly by teaching staffs, teaching assistants, and students. Students are provided the opportunity to actively participate in the class, as well as to provide their perspective on how they perceive others' efforts, and to critique and question them. Open-ended critiques and evaluations allow students to consider alternative approaches. Accordingly, students are able to evaluate their own designs, as well as the designs of other students jointly with faculty, through analytical discussions within a studio setting, and present alternative/analogous solutions and approaches.

In two dimensional assignments, the students are required to create designs corresponding to the subject of the assignment that utilize two dimensional geometric shapes (squares, rectangles, triangles and circles) that are incorporated in various numbers and combinations (square+rectangle, square+rectangle+triangle, square+rectangle+triangle+circle) (Table 2). In three dimensional assignments, three dimensional geometrical shapes (volumes) such as cubes, pyramids, square- and rectangle-prisms are used for the organization of spaces. In two dimensional assignments, the students are required to perform abstract designs; for three dimensional assignments, they are required to provide concrete designs (such as canopy, border elements, entrance, and open, semi-open, and closed spaces).

For design work, different forms of paper with various features, white and black colored cardboard stock, and fabric, plastic, wood and metal materials are used. After the fundamental determinants and clues are provided, no further restrictions are imposed on the student on how to proceed with the design; the student is free to choose any design approach.

Through the assignments, the following objectives are expected to be achieved:

- To have the students discover themselves and become aware of their capabilities,
- To develop creativity and form a system of creative reasoning,
- To develop students' skills for reasoning, probing, critiquing and having a questioning nature,
- To have the students articulate on their designs,
- To develop the students' abilities for abstract and concrete thinking.

Table 2: Schedule for the Basic Design course in the 2009-2010 academic year (Source: Author).

1. Study	Using 16 squares (2 cm x 2 cm) and 12 rectangles (2 cm x 4 cm) of black cardboard, create a design which expresses **order** on a white workspace with A3 dimensions.
2. Study	Using an unlimited number of squares (2 cm x 2 cm), an unlimited number of rectangles (2 cm x 4 cm), and an unlimited number of triangles (2 cm x 2 cm x 2 cm) cut from solid color (black) cardboard, exercise the concepts of **unity, repetition,** and **interleaved repetition** on an A3 workspace.
3. Study	Using an unlimited number of squares (2 cm x 2 cm), an unlimited number of rectangles (2 cm x 4 cm), an unlimited number of triangles (2 cm x 2 cm x 2 cm) and circles (radius: 2 cm) cut from cardboard (of multiple colors, or shades of a single color), explore **hierarchy** (Figure 1) on a workspace with A3 dimensions.
4. Study	Do an exercise on **color,** having an unconstrained form and features, and possessing a specific theme.
5. Study	Using colors and values formed through free-format shapes, define **emphasis and/or hegemony,** in a workspace with A3 dimensions.
6. Study	Using colors and values formed through free-format shapes, do an exercise on **texture,** in a workspace with A3 dimensions.
7. Study	Using an unlimited number of triangles in unrestricted shapes and dimensions, do an exercise on the theme of **transparency** (Figure 2).
8. Study	Design an **open, semi-open, or closed space** possessing a certain order using cubes, prisms, and pyramid forms, within a pyramid with base of 40 cm x 40 cm and height of 60 cm.
9. Study	Design a **border element** (Figure 3) using an unlimited number of elements in unrestricted forms made from sticks, cardboard, etc...
10. Study	**FINAL ASSIGNMENT PROJECT:** Design a **canopy (semi-open space)** (Figure 4) using an unlimited number of elements in unrestricted forms made from sticks, cardboard, etc...

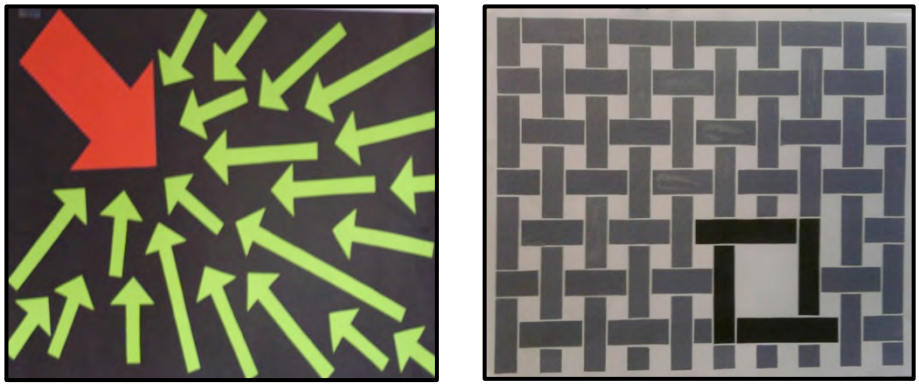

Figure 1: Examples of the basic design studies made by students: Hierarchy (Source: Author).

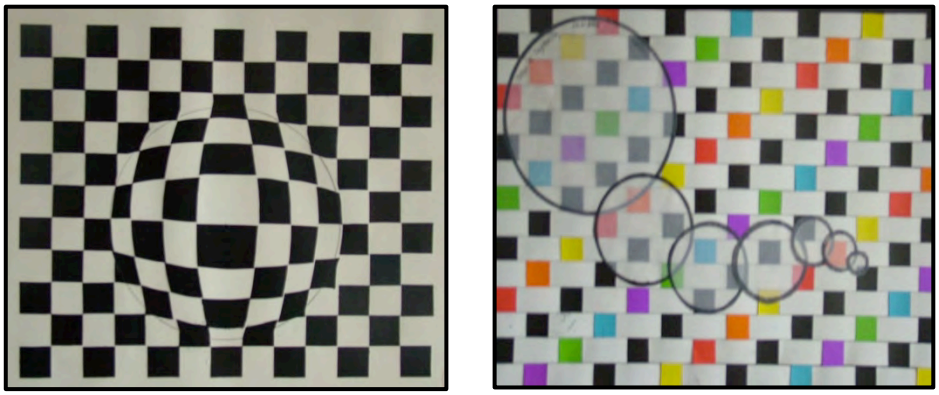

Figure 2: Examples of the basic design studies made by students: Transparency (Source: Author).

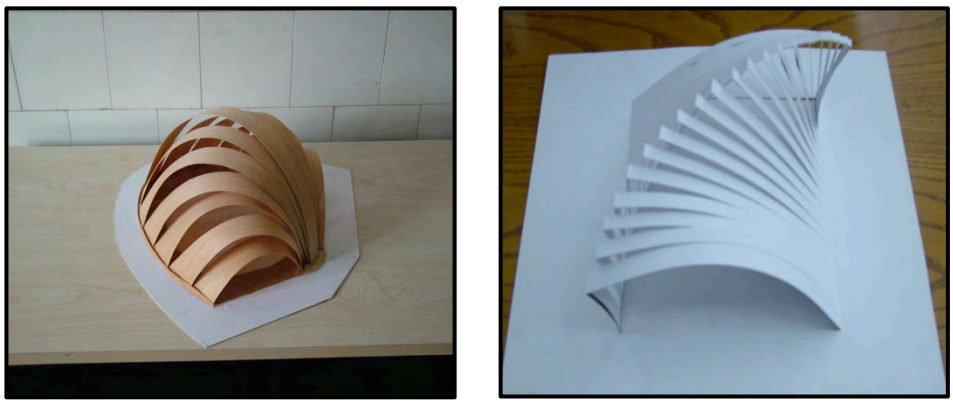

Figure 3: Examples of the basic design studies made by students: Canopy (Source: Author).

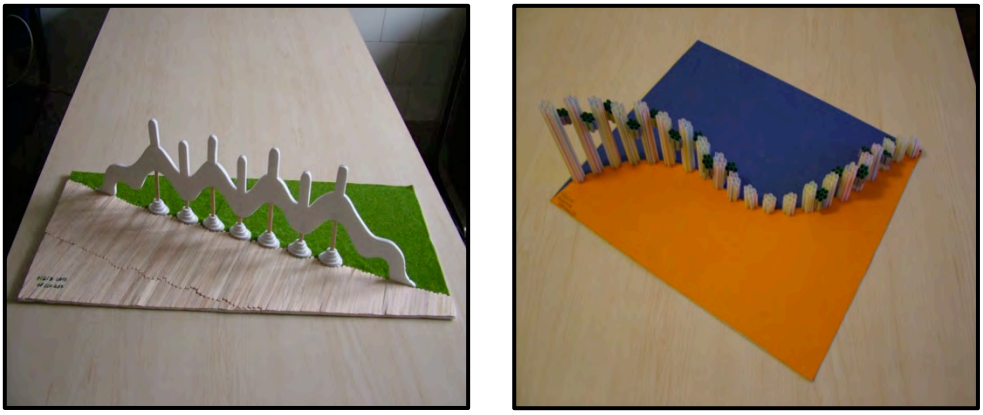

Figure 4: Examples of the basic design studies made by students: Border element (Source: Author).

The students are expected to achieve the following in their assignments:

- The students are expected to do research, analysis, probing, and observing towards the completion of their assignments. In this way, they will have formed the necessary infrastructure required for their designs.
- Using non-variant basic shapes (cubes, pyramids, prisms, squares, rectangles, triangles, circles, lines and points, etc…), create original designs that exhibit rules internal to the designs, where the rules are determined by the students,
- To emphasize establishing links among two and three dimensional geometrical shapes, as opposed to emphasizing the shapes themselves, and develop the features of the geometrical shapes and the manner in which they can be used,
- To discover geometrical shapes and new relationships among these shapes, and to further develop on these discoveries,
- To develop alternative perspectives on geometrical shapes and to attribute new meanings to these shapes.
- Instead of conventional descriptions and definitions, using two and three dimensional geometrical shapes to create new forms requiring definitions, and to form relationships among them.
- To develop organizational skills relating to design so as to develop original designs,
- To create alternative designs while performing the assignments and during post-design evaluations.

There are eight design courses at the Department of Landscape Architecture in the Faculty of Agriculture, Ankara University, spread over the semesters (Table 3). Among the design courses,

basic design stands crucial since the freshman design students encounter with the phenomenon of design first in basic design course (Denel, 1998). Basic design could be considered as the most important part of design education since it is the core of the curriculum where all the other courses. This is necessary as the design courses in subsequent semesters are developed based on the knowledge and skills attained in the basic design course. Having grasped the activity of design and the design process as a result of taking the basic design course, the students apply their acquired knowledge and skills in subsequent design courses (sometimes doing so without being aware of it). It has been observed that students who gain a firm understanding of basic design are not strained in other design courses, are more creative, and produce more original designs. Accordingly, it may be stated that there are correlations between success in the basic design course and success in subsequent design courses. However, students who do not succeed in the basic design course are able to later develop their skills with respect to design and creativity. So it can be said that creativity may develop in the other design courses. Creativity is the process by which imagination exists in the world. Creativity can be ever present to include that ultimate notion of all activities of man be scientific, cultural or artistic (Antoniades, 1992). Medawar (1969) posits that creativity cannot be learned perhaps, but it can certainly be encouraged and abetted.

Table 3: Design courses at department of landscape architecture (Source: Author).

Semesters:	Courses:
I. Semester	Basic Design
II. Semester	Landscape Design
IV. Semester	Project I
V. Semester	Project II, Planting Design, Indoor Plants and Design
VI. Semester	Project III
VIII. Semester	Design Studio

CHALLENGES FACED IN BASIC DESIGN EDUCATION

Coming after the established pattern of primary and high school education in Turkey, a course such as basic design that is founded on research, inquisition, reasoning, and productivity, requires a process of formidable and focused effort both on behalf of the student and the educator. As accustomed routines and accepted teachings are attempted to be transcended, the students struggle at first in understanding the concepts, and experience uncertainty during their design work.

The most significant challenge for the educator is conveying to the student that starting with his or her first design; the design process is one of reasoning. The most difficult phase in basic design education is having the students adopt those practices possessed by designers, such as learning to ignore established habits, removing limitations, modifying perspectives and developing perceptions. But creative abilities can be cultivated by education and through guiding process.

Although geometrical shapes are employed in the studies relating to basic design, the students find it challenging to utilize their knowledge of geometry acquired in their primary and high school education, and are unable to establish the relationship between design and geometry. In both two and three dimensional basic design works, deficiencies are observed in having geometrical shapes and mass-volume relationships reflected through designs.

As basic design is a course that shares common denominators from both the disciplines of design and arts, elements and principles of, and approaches to, design are administered in a general manner. Therefore, students frequently struggle in associating landscape design with basic design. Additionally, students sometimes are unable to form an association among the basic design course and other design courses. Despite their achievements in the basic design course, students sometimes experience difficulties in other design courses as if they are starting from scratch. Therefore they encounter problems in applying the knowledge and skills they obtain from the basic design course to other design courses. However these problems are resolved over time. Instead of defining the work performed through the design process, the students define the work

performed after the design has been completed. This is due to the fact that the subject matter and the work to be performed are not sufficiently comprehended.

It has been observed that in recent years, the computer is no longer a tool for drafting and presentation, but has become a tool that is undertaken starting with the initial phase of the design process. Therefore, sketching and drafting are beginning to be removed as components of design. In the process, the design sketching phase has come to be viewed as an unnecessary step by the students. The same situation is observed, as well, for the basic design course. During the last two years, the computer has come to be used by students as an alternative to pen- and paper-based drawing, which are tools for reasoning. It cannot be overlooked that the use of computers in design provides increases in quality and speed. However, the computer is not a part of the design activity. Additionally, the most important point that must not be forgotten is that the computer cannot replace the sketching phase. The use of the computer prevents students from being able to discern new relationships during the sketching phase and therefore inhibits originality in designs; it restricts alternative and better qualified design initiatives.

RESULTS AND SUGGESTIONS

In order to move past the obstacles faced in basic design education, efforts focused on developing basic design education shall be effective. For improve teaching quality of the basic design course and to elevate students' learning achievements can be tried different teaching methods. Teaching theory and practical studies must be fully combined in the whole design process.

Design education is a way to foster students' creativity. Therefore, it is essential to understand the creative design process and its routine in order to show how students can generate creative output and how teachers can guide students in the design process (Wong and Siu, 2012).

Basic design education is not one that solely teaches the adoption of skills and techniques. It also requires teaching the students to be curious, and imaginative, and to observe, experiment, and evaluate clues to be able to find alternative solutions and view situations from critical and creative perspectives.

In addition to efforts by the teaching staffs to overcome the problems faced in basic design education, efforts by the students for self-development in the skills for research, analysis, observation, and probing are resulting in positive outcomes. Therefore, it has been observed that guiding students in class by providing them with suggestions can be more effective. It has also been observed that research performed by students, their observation of the surroundings and analysis of existing designs, also contribute to this effort. Establishing new connections among existing information is essential for the foundation of creative thinking. Knowledge gained is important in forming new opinions. Since knowledge may be a source for inspiration and creativity. With more knowledge comes more learning and better creative thinking. In a conducive environment, new links may be established using newly gained information and widely different designs may be created (Gelb, 2002). According to Milburn and Brown (2003); educators in design professions such as landscape architecture, architecture, planning, and interior design have the responsibility of teaching students the skills which will not only allow them to convert research data into designs, but also to express those images and design ideas in written and verbal form. In order to do this, educators must understand how they themselves move from numeric and semantic to visual data.

The relationship between design and geometry must be explained clearly. Indeed, a course in "design geometry" should be helpful in supporting the basic design course. When the knowledge of geometry is brought together with the association it has with design, students will be better able to grasp the use of geometrical shapes in design, and it will also advance their abilities for three-dimensional thinking.

Part of the educational process is to acquaint students with exemplary designs (Thompson, 2002). The teaching of each subject through well-formed examples used in previous years allows students to better grasp that subject and removes any uncertainties. However, the most significant drawback of this approach is the tendency for students to be influenced by the illustrated examples and to execute similar designs. Therefore the students unconsciously limit themselves, preventing themselves from creating original designs. In order to avoid this predicament, the design topics for

each year may be selected among diverse topics and distinct themes. Accordingly, as the subject matters of the illustrated examples and student assignments will be distinctly different, the examples' influence on students will have been prevented.

Basic design teaching should be integrated other design courses. Aside from teaching students the elements and principles of basic design, an awareness-raising is required in landscape design and other design courses to demonstrate how to put these skills to use. A description of the use of design principles through various projects will allow basic design to be grasped in its own right, and will also provide students with the ability to apply those skills they learned in the basic design course in project classes in subsequent semesters.

Technological advances bring conveniences and new solutions to the educational space. It is believed that education that does not benefit from continuously evolving and advancing technologies cannot meet current social and individual expectations and needs. Assessed specifically from the perspective of education, whether opportunities and techniques offered by technology may be used as tools for design, is a topic requiring careful evaluation. The means provided by technology should be utilized by students to the full extent of their benefits, and can contribute to their creativity. Therefore, in order to develop the students' creativity and to enable them to design faster and more effectively, an awareness that they need to use the computer more effectively as a tool must to be instilled.

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