

From Two-Dimensional to Space

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Introduction

All pictorial form begins with the point that sets itself in motion. The point moves, and the line comes into being the first dimension. If the line shifts to form a plane, we obtain a two-dimensional element. In the movement from plane to space, the clash of planes gives rise to body (three-dimensional). A summary of the kinetic energies which moves the point into a line, the line into a plane, and the plane into a spatial dimension (Klee, 1961).

One cannot create a good design without the basic knowledge of design principles and form, space and order. Architecture in general is the art of problem solving, therefore, this knowledge is vital in shaping prefigure solutions when designing. Fundamentally, architecture is the physical expression that accommodates to the human activity and needs. Thus, the composition and organisation of form and spaces help promote communication, stimulate responses and encourage activities. Therefore, the order of form and space can be presented as means to solve a problem in response to condition of function, purpose, and context, architecturally (Ching, 1996). For this to be materialized, one must first be able to identify the basics of design principles and elements of form and space, and understand how they can be organized, composed and manipulated during the design process and development.

Background

The course objectives are to develop among the first year students' understanding on the importance of precedent study when designing and their ability to demonstrate

and apply basic design principles in their project. In addition, the course also emphasises on their understanding of form, space and order in relation to space composition and arrangement. The students are given ten precedent studies showing the work of prominent architects and landscape architects around the globe to choose from. They conduct a study of the works and philosophy of the case study that are especially related to concept, form, space and order. Students are then required to create a relief painting that applies different media under the theme Flora and Fauna. The two themes are selected for the fundamental understanding of nature. This is intended to inculcate students awareness in appreciating the elements of nature. The work must have a concept and is based on ideas chosen from the precedent study, as well as demonstrates the students knowledge on basic design principles. The 2D reliefs were constructed on a 50cm x 50cm (20" x 20") canvas using various media that represents their main concept combined with interpretation of precedents and design principles. The next process was to produce a monochromatic model that displays the design of spaces using planes. This project is a continuation from the 2D relief project, which specifically emphasises on the students' knowledge of form, space and order. The model must be constructed on a 30cm X 30cm base, using monochromatic model board.

The Product

Three artefacts were selected from each theme is as follow:

Fauna 1: Espiral

The student, Nurdin Akhmad, used the concept Espiral inspired by the jelly fish and the architecture of Mies Van Der Rohe as his precedent study. The design focus of the relief lies in the philosophy less is more where he used the repetition of simple rectangular form. The arrangement of the rectangular was influenced by the movement of the jelly fish. In reflecting the minimalist concept, the student applied monochrome colours of black and white. The rectangular was composed in a spiral form using a variety of sizes. This clearly demonstrates a rhythmical movement and gives the optical illusion of an upward moving staircase. On top of that, the black background further emphasised the white spiral form. As for the 3D model, the principle of form, space and order are achieved through the implementation of centralized organisation accomplished by the creation of depressed spaces, space within a space, elevated spaces and interlocking spaces. The work is well executed and showed a great understanding of design principles, and form, space and order. Nevertheless, a simpler form and composition would better portray the less is more philosophy (Figure 1-3).



Figure 1, 2 and 3: Espiral inspired from jelly fish and Mies Van Der Rohe's

Fauna 2: Medusa

Fathihah Athirah Hasnor also used the jelly fish as her subject matter, but the design approach differs as the architecture of Zaha Hadid is her precedent study. Using rhythmical movement, the composition is more graceful and fluid through the implementation of curvilinear lines which expresses the feminism influence of her precedent. The hues of emerald green

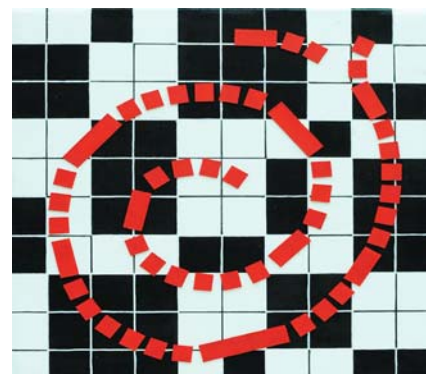
combined with various line quality shows the vibrancy of the work. As above, the model focuses on a centralized organisation, moving outwards in a radial movement. The radial movement is achieved by using both vertical and horizontal planes, as well as elevated and depressed spaces. In comparison, the model lacks the dynamism that is reflected in her relief in which the gracefulness and fluidity are not well executed (Figure 4-6).



Figure 4, 5 and 6: Medusa also inspired from jelly fish and Zaha Hadid.

Fauna 3: Snake in the Bush City

The third relief entitled Snake in the Bush City is by Haris Al Harras, using the snake as a subject matter and the work of Peter Walker as his precedent study. His work truly defines the minimalistic approach that was used by Peter Walker. Using black and white grids as the background to represent the city, the circular red line (the snake) creates element of contrast and becomes the focal point. The black and white squares that formed the grids are deliberately placed in random to break the monotonous of the grid. The student successfully demonstrates his understanding of Peter Walker's philosophy in which he favours the use of grid and circular form, as well as muted natural colours such as green, white and earth. However, the colour selection by the student does not truly imitates the colours commonly used by Peter Walker. Despite this, his model replicates the grandeur expression championed by his precedent. Combining both grid and radial organization, overhead vertical planes are used to differentiate between the two organizations and define the radial form. The variety of heights used for the vertical and overhead planes emphasises the grandeurness that he tried to convey. The grids are created through depressed and elevated spaces, again to break the monotonousness of the grids (Figure 7-9).



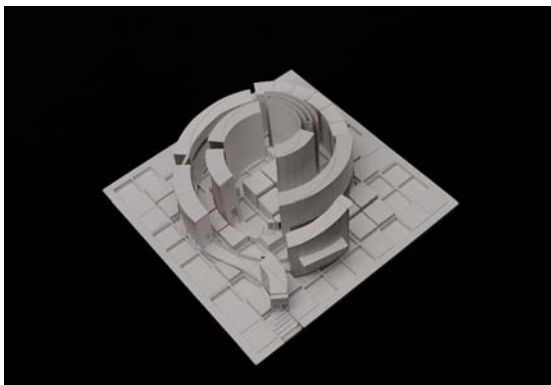
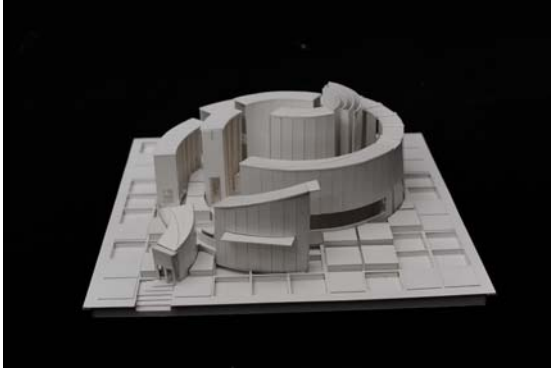


Figure 7, 8 and 9: Snake in the Brush inspired from snake as metaphor and Peter Walker works.

Flora 1: Zen Unity

The idea of Zen Unity stemmed from the mushroom, Yap Yee Yeong chooses the work of Isamu Noguchi as her precedent. Case study Noguchi is a Japanese-American artist that stresses on the principles of modernization and traditional in most of his art works and garden design. Using the irregular circular shape of the mushroom as the main form of the relief, she emphasises on the pattern of the gills, repeating it in various sizes and colours to create interest and repetition as well as unity. The colours

used are red, blue, white, black and brown as the background and significantly associated with Noguchi's works. On the other hand, the student tries to create a focal point via a combination of various elevation views of the mushroom. Nevertheless, the bottom views are more dominant. This can further be improved if the student highlighted the supposed focal point using bold colour. As for her model, triangular and square forms are chosen as the primary shape to represent the gills pattern, while radial form is used to indicate the circular form of the mushroom. Elevated and depressed base planes were used to emphasis the rhythm and hierarchy of the spaces. The model would better benefit by improving the organization of spaces and order (Figure 10-12).





Figure 10, 11 and 12: Zen Unity stemmed from mushroom and inspired by Isamu Noguchi ideas.

Flora 2: Looking Up

According to Fiona Tibok, the inspiration of this relief came from the tree canopy using colour range of the autumn season. The simple repetitive form of overlapping leaves represents the overlay of a tree canopy influenced by the minimalistic design with enormous impact of Peter Walker. The light blue background imitates the colour of the sky, harmonises all the elements, but creates contrast at the same time. The leaves are successfully highlighted as a focal point through the vibrant colours of autumn. The variety of line quality somehow weakens the form in terms of overall neatness. The characteristic of Peter Walker's principles are clearly expressed through the student's model. She uses various heights of overhead planes to accentuate the hierarchy and continuity of form. The interlocking, adjacent and intermediate spaces were all united through the depressed base plane at the centre point. This model is well executed and showed a great understanding of form, space and order (Figure 13-15).



Figure 13, 14 and 15: Looking inspired from tree canopy by Peter Walker works.

Flora 3: Serenity

A combination of traditional and modern design approach of Geoffrey Bawa is translated to the pattern of the Serdang palm's frond. The student, Khairul Akmal uses a range of green hues to highlight the pattern as a focal. In addition, the contrast grey colour and pattern dominates the whole artwork. The overall composition is in harmony although it is asymmetrically balanced.

Nevertheless, the usage of the grey hues minimised the impact of the overall artwork's appearance. The student emphasizes more on depressed base planes in constructing his model. Appearance wise, the make of the model is very intricate and detailed; however, the limited implementation of different hierarchy of levels make the model appeared flat as compared to other models (Figure 16-18).





Figure 16, 17 and 18: Serenity inspired from Serang palm's frond and Geoffrey Bawa.

Critiques and Suggestions

Overall, the students have shown their abilities to design and present their ideas, as well as construct their relief paintings and 3D models. They have managed to grasp the understanding of philosophies, design processes, idea developments and the importance of understanding space, although much emphasis is given on the precedent studies and their ideology rather than the composition of spaces. The continuation from 2-dimensional to 3-dimensional artworks is well executed. Nevertheless, the quality of artworks needs to be improved in terms of neatness and process of production.

References:

Ching, F.D.K. (1996). *Architecture Form, Space and Order*, Second Edition. Van Nostrand Reinhold.

Klee, P. (1961). *The Thinking Eye: The notebook of Paul Klee*. G. Wittenborn, NY/ Lund Humphries, London.

Schulze, F. and Windhorst, E. (2012). *Mies Van der Rohe: A Critical Biography, New and Revised Edition*. The University of Chicago Press.

Jodidio, P. (2012). *Hadid (Taschens Basic Architecture)*. Taschen.

Torres, A. M. and Williams, T. (2000). *Isamu Noguchi: A Study of Space*. The Monticelli Press.

Bawa, G. and Robson, D. (2002). *Geoffrey Bawa: The Complete Works*. Thames & Hudson.

Levy, L. (1996). *Peter Walker Minimalist Gardens*. Spacemaker Press.