Dalhousie University
School of Architecture
Winter 2018

Class Time: Friday, 2:30pm to 5:30pm
Room: D414 MacDonald Building, Sexton Campus
Course Instructor: Ken Kam
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Calendar Description
As the world becomes more visually oriented, a critical appreciation of visual information becomes indispensable. Students use charts, diagrams and other means of externalizing, developing, and sharing ideas. In doing so, they learn to analyze the form of graphic information as well as the content. Hands-on work is emphasized, but no prior experience in drawing or design is needed. This course is a more abstract and reflective complement to ARCH 2000.03.

Additional Description
This course is for undergraduate university students who are seeking a better understanding of visual representation. This course will introduce students to a general overview of the history, methods and medium of visual communication and provide practical knowledge in basic design and graphic computer skills. Visual images have been recognized the easiest way to communicate an idea and with the new technology we face in the 21st century, images can be found in every corner of our lives. The way we absorb and learn information now is different from the traditional text-base learning theory. This course will investigate how we make the connection from viewing an image to making a critical judgment from a personal reflection and, in turn, having a new attitude towards a specific ideology.

Learning Objectives
The goal of the course is to provide students with the practical knowledge and understanding of visual communication. Students will also develop hands-on skills and be able to articulate an understanding of the relationship between visual design ideas and their effective representation. This course will also provide an overview of visual communication tools (i.e. photo editing/layout software, TinkerCad, model-making, etc) and techniques. Through a series of practical exercises, students will learn how and when to use them effectively.
Jan. 12
Jan. 19
Jan. 26
Feb. 2
No Class
Feb. 9
Feb. 16
Feb. 23
No Class
Mar. 2
Mar. 9
Mar. 16
Mar. 23
Mar. 30
No Class
Apr. 6

WINTER
Orthographic drawings

1. The Section of Appearance
2. Parallel Projections
3. Section Perspective with Elevations
4. City Street as a Stage

Model making

5. View from Above
6. The Consequences of working in Miniature
8. Diagrammatic Model
9. Light and Shadow

Composition of word and image

10. Composition Principles
11. Composition Techniques
12. Narratives and Graphic Structure
13. Narratives and Graphic Structure II

Due date for Assignments “Orthographic drawings”
Due date for Assignments “Model Making”
Due date for Assignments “Composition of word and images”
Section is a “vertical cut” through an object - the cut plane. The viewer looks at the cut plane with a 90˚ from a particular position. Sectional drawings show the height of a space, the thickness of the materials shown on the cut plane, and internal details of the object.

Exercise 1.1: Create a series of “Elevation-section” drawings of five different architectural objects. Include a 100 words companion text to describe what you’ve learned from the exercise.

General process (more details are presented during class):
1. Choose five architectural objects.
2. Define a “cut plane” for each objects.
3. Study the object by drawing it's section and elevation.
4. Layout/Compose your drawings on several pages.
5. Present your work in class.

Goal:
At the end of this exercise, you should be able to show how to use an elevation-section drawing to depict internal details and to help further understanding of an object.

What you need:
- Digital Camera
- Multiple sheets of drawing paper (11x17)
- Wood graphite pencils (4H - 8B)
- Sketchbook

References:
Composite section, plan and elevation of two versions of a 16-bay dome, developed from the ‘Revised design’, drawn by Hawksmoor, c.1690
Parallel projections describe multiple views of an object, space, or building on a flat drawing surface using only two dimensions. They are abstract systems and methods which enable us to illustrate a real object beyond the viewer’s optical capacity. We will explore how to construct an axonometric drawings.

Exercise 1.2: Create two axonometric drawings of two different city block - residential, commercial, and/or mix usage. Include a 100 words companion text to describe what you’ve learned from the exercise.

General process:
1. Choose two urban city blocks in Halifax and visit them in person.
2. Research and find the appropriate site plan by using Google map. You can use Google street view for reference while you are making the drawings.
3. Before you start your drawing, use the site plan as a base and find the appropriate scale for the drawings in reference to the paper’s dimensions. (11x17)
4. Add details to your drawings - people, vegetation etc...
5. Present your work in class.

Goal:
At the end of this exercise, you should be able to create well-proportioned axonometric drawings of any subject, and examine/understand the build environment through creating the drawings.

What you need:
- Digital Camera
- Multiple sheets of drawing paper (11x17)
- Wood graphite pencils (4H - 8B)
- Ruler
- Sketchbook

References:
- Wilk, S. 2014, Drawing for landscape architects, DOM publishers.

Readings:
Orthographic drawings

LDA Design Team, Bernie Foulkes,
Project: Birmingham Eastside,
UK, 2010

students’ work (Arch 2006, 2016)
axonometric view of the city
A section-perspective drawing illustrates the spatial relationship between exterior and interior spaces of a building and its context. This type of drawings enable students to explore hidden details of a built environment which our eyes cannot perceive.

**Exercise 1.3:** Create a one-point section perspective drawing of two different parts of ______ street, Halifax. Include a 100 words companion text to describe what you’ve learned from this exercise.

**General process (more details are presented during class):**
1. Choose two urban city blocks in Halifax and visit them in person.
2. Determine where your “cut plane” location.
3. For later reference you can research more detail using Google map and street view while you are making the drawings.
4. Construct the section - deduce in section the proportion, shape, and geometry of your selected area.
5. Place you “vanishing point” and connect the “cut plane” to your section.
6. Project and render the spatial depth.
7. Add details to your drawings - people, vegetation etc...
8. Present your work in class.

**Goal:**
At the end of this exercise, you should be able to create a one point perspective section drawings with proper line weight and understand details about the built environment.

**What you need:**
- Digital Camera
- Trace paper
- Multiple sheets of drawing paper (11x17)
- Wood graphite pencils (4H - 8B)
- Ruler
- Sketchbook

**References:**
- Wang T 1996, Plan and Section Drawing, Wiley

**Readings:** Edwards, B. 2008 “Introduction”. In Understanding Architecture through Drawing.
The combination of different drawing types (axonometric, elevation, perspective, etc.) can be a useful way to represent a built environment, a landscape, and a design idea. Composing a drawing of this type requires a strong sense of order and organization of the elements. Viewer must engage with it quickly and follow the hierarchy of the presented information.

Exercise 1.4: Combining axonometric, elevation, perspective, and sectional drawings into a single sheet composition. Include a 100 words companion text to describe what you’ve learned from this exercise.

Subject: _______ Street, Halifax.

General process (more details are presented during class):
1. Reflect on the last three weeks exercises.
2. Determine what part of _______ street to represent.
3. Visit the site and walk through the area. Draw a few quick sketch of the areas you like to represent. You can use Google map or street view later to remind and fill in the details.
5. Draw several thumbnail sketch ideas in how to combine and arrange your drawings into a single composition.
6. Make the drawing.
7. Present your work in class.

Goal:
The goal of this exercise is to help you to make clear and engaging composition decisions when combining multiple drawing types together. Furthermore through active engagement - site visit and walking through the area, you will acquire a more complete understand of the space through creating the drawing.

What you need:
- Digital Camera
- Trace paper
- Multiple sheets of drawing paper (11x17)
- Wood graphite pencils (4H - 8B)
- Ruler
- Sketchbook

References:
- Wang T. 1996, Plan and Section Drawing, Wiley

Readings:
No reading

Due dates for Assign. “Orthographic drawings” - Feb. 9, 2018
Discover Artificiality

This page combines nine drawings of a building and its site: perspectives, site sections, detail sections, site plans, and site plans to help understand a place. The key issue about this drawing is that it was the first visit to the site after years of hearing about the building. The commonly repeated theme is that the villa sits on a hillside when in reality it sits asymmetrically on a plinth within which is carved an entry ramp, which is aligned with a chapel across the small road. The asymmetry helps make each of the nearly identical façades unique in terms of an individual's experience. The idea that the artificial plinth incorporates back-of-house services adds yet another layer to the villa's design and interpretation. The series of drawings attempt to help uncover the villa both as an artifact but also as a design that resolves program layout, site strategies and access of light and air.

source: page 284
Drawn to Design, Eric J. Jenkins

Zhang, K
(Arch 2000, 2016)
Description:
Architectural models are the best way of communicating 3D ideas. Physical models can be created out of anything from recycled cardboard to materials that need laser-cutting for precise results. For the next four weeks you are introduced to four kinds of modeling techniques (volumetric, massing, detail, process, and abstract), how to construct them, and to use them to express an idea. In addition, you will learn how to use basic lighting techniques to perform a lighting study on the models and photograph them.

Exercise 2.1: Construct a topographical model of __________ and using volumetric model principle to show buildings which occupies the area. Include a 100 words companion text.

General process (more details are presented during class):
1. What is the purpose of model?
2. Working documents - site plan, contour lines, etc.
3. Determine the scale and details.
4. What kind of construction materials for the model?
5. What type of equipment or machine for cutting and constructing the model?
6. Research in construction techniques and sequences.
7. Make the model.
8. Present your work in class.

Goal:
The goal of this exercise is to help you to understand the process of constructing a model and through the act of making, it can help further understanding of the site.

What you need:
• TBA

Readings:
Description:

The facade is the most visible element of a building. All facade has a underlying organizational hierarchical pattern. By modeling a scaled detail planar surface of a building facade, you can learn/understand the complexity of a facade and its assembly procedure.

Exercise 2.2: Construct a facade (planar surface) model of __________. Include a 100 words companion text to describe what you’ve learned from the exercise.

General process (more details are presented during class):

1. Study the facade carefully by drawing it. Be mindful about the sequence of how you finish the drawing from beginning to end.
2. Separate the facade into different layers (see left diagram).
3. Determine the scale and details. Use the drawing layers as a template and transfer them on different thickness, color, and material of paper.
4. Cut out the template using appropriate tools.
5. Combine the layers of paper/material.
6. Finish the facade by adding details.
7. Present your work in class.

Goal:

Through the process of making the model, you will learn the composition of a building facade and aware of the amount of details need to be shown at a certain scale.

References:


Readings:

Models showing the existing facade (designed by Auguste Stüler) and the new facade (designed by David Chipperfield) of the Neues Museum in Berlin.

Model created by: Chisel & Mouse
http://www.chiselandmouse.com.html
Designing a building, a landscape, or part of a city is a complicated procedure which takes time to evolve and a considerable amount of planning. In the beginning process, designer often use and manipulate simple geometric shapes to cultivate design ideas. It is important to have a range of simple models which can explain the evolution of their ideas. These “process models” can illustrate their thought process, building sequences, connections of important areas, light studies and/or stages of decision making.

Exercise 2.3: Construct a series of process models which shows the design concept and the building sequence of_________. Furthermore photograph the evolution of your work and layout in a systematic way. Include a 100 words companion text.

General process (more details are presented during class):
1. Study the area of interest e.g. a building, a city area, or a landscape.
2. In your sketchbook, draw simple geometric shapes to represent different parts of your subject areas.
3. Determine what model building materials to use for representing your ideas e.g. styrofoam, paper, cardboard, clay, or wood.
4. Determine the tools which require to cut or manipulate the model.
5. Photograph each stage of your work.
6. Layout all the photographs in a systematic way which explains the design and building process.
7. Present your work in class.

Goal:
The effort in making this kind of model allows you to evaluate creative ideas and develop them accordingly. Using small diagrammatic model, you can also appreciate that ideas are much easier to enhance/change/edit when they are smaller and simpler.

What you need:
• a list of tools and material will be presented during class.

Readings:
Design team: Proctor & Matthews Arch.
Project: One Priory Square
Client: Sea Change Sussex
Location: Hastings, U.K.
Description:

An interior space can be greatly altered by the transient quality of daylight. When used to illuminate the interior environment of a building, sunlight can dramatically alter our perception. This assignment allows students to understand the broad range of design strategies within an architectural space.

Exercise 2.4 & General process (more details will be presented during class):

You are asked to design and construct a small/simple model to represent three architectural spaces - hallway, front lobby, and small gallery (fig. 1). By altering light condition, materials, and design strategies within each model, you are asked to photograph the space in a systematic and typological way (fig. 2). Each variation is to develop into a matrix of photographs (fig. 3). Include a 100 words companion text to describe what you’ve learned from the exercise.

Goal:

This exercise will help you understand the composition of perceptual luminosity within each space you’ve created and to compare the impacts of daylight within each design. Furthermore, you can visualize your impact in design strategy by altering daylight within a design space.

What you need:

- a list of tools and material will be presented during class.

Readings:


References:


Due date for Assign. “Model Making” - March 9, 2018
student's work (2012)

photo by: Antoine Mercusot
Description:

Typefaces are an essential resource used by graphic designers. Graphic designers sometimes create their own typefaces and costume lettering. More commonly, they use the vast library of existing typefaces, choosing them in response to a particular audience or situation. By using and arranging a set of different typefaces, students will learn graphic compositional principles and gain an in-depth knowledge of the graphic design process.

Exercise 3.1: Design, arrange, and compose a set of text into a document by the following design systems:

- Axial
- Bilateral
- Dilatational

General process (more details are presented during class):
1. Gather the companion text you have done in previous exercises. (preferably in Word documents)
2. Using the suggested design system, in your sketchbook, draw simple thumbnail sketches of different layout and composition.
3. Transfer your thumbnail sketches into a page documents using computer software - Adobe INdesign
4. Printout your work.
5. Present your work in class.

Goal:
The goal of this exercise is to introduce you to the textual aspects of design involving the characteristics of type, how you identify letters, words, and paragraphs, and how you read them.

What you need:

- computer
- INdesign software
- companion text from previous exercises
- sketchbook
- pencils

References:

Composition of word and image

Axial

Bilateral

Dilatational

Poster design by: Jeker, Werner (1987)
Mar. 16, 2018

Description:

To layout a presentation means to order all its parts into legible and effective composition. Viewers must engage with it quickly and follow the hierarchy of presented information easily¹. Most architectural and planning presentations consist of text, photographs, models, and drawings. It is important to develop a story, however simple, to engage with the viewers. The presentation must be able to communicate the design ideas and all of its components to its viewers, regardless if they are laypersons or the professionals.

Exercise 3.2: Design and layout a presentation of all your previous work from the exercises (photographs, models, and drawings).

General process (more details are presented during class):
1. Gather all the drawings, models, and photographs of previous exercises. Transfer them into digital format.
2. Editing carefully, adjust framing, and consider change of scale of your work.
3. Create several story boarding ideas of your work.
4. Transfer your story boards idea into two sheets of large format presentation.
5. Printout your work.
6. Pin up and present a one minute presentation of your work in class.

Goal:
The goal of this exercise is to introduce you to the textual aspects of design involving the characteristics of type, how we identify letters, words, and paragraphs, and how we read them.

What you need:
- computer
- Indesign, Illustrator software
- graphics from previous exercises
- sketchbook
- pencils

Readings:
No reading.

Composition Techniques - presentations, layout and lettering

Architecture master’s thesis presentation
Mark Erickson

¹ Mar. 16, 2018
These are the most important to show in final crit.
The rest are analytical diagrams, previous studies & design development.

Site / plan
- Top plan
- Site plan
- View plan

Plan, section, projection of buildings, including residence & meeting centre.

Exhibition space:
- Exhibition area
- Display tableaux
- Display layouts

Public square:
- Public square
- Garden

These are the most important to show in final crit.
The rest are analytical diagrams, previous studies & design development.
In smaller paper & not occupying important space in panel.
A portfolio is a collection of design work that demonstrates creativity and artistic skill. It is an organized, purposeful collection of work that displays knowledge, understanding, skills, accomplishments, interests, and achievements over a specified time. A good understanding of basic compositional principles and clearly define your graphic intentions can help communicate a clear and concise message. There are many methods of graphic design layout principles, in the next two weeks we will look at variations of Grid Structure Layout Principle.

Exercise 3.3 - 3.4 & General process (more details will be presented during class):

Develop a hierarchy in distinguishing your work and design a personal portfolio for printout (11x17). In most cases, your work are divided into different projects. Analyze the structure of the content (main title, subtitle, photographs, drawings, text), choose a layout style, create a visual hierarchy, and develop two variations of one layout design based on the following systems:

- Grid
- Modular
- Transitional

Goal:
The goal of this assignment is to introduce students to the textual aspects of composition, design and layout involving the characteristics of types, photographs, drawings, and graphics.

What you need:
- a list of tools and material will be presented during class.

Readings:
- Bierut M., 2007 “No. 4 - How to become famous." & “No. 6 Histories in the Making”. In Seventy-Nine short essays on Design.

References:

Due date for Assign. “Composition of word and images” - April 6, 2018
How the course works (Attendance/Class Participation):

This is a course where you learn the content in class, which means student participation is expected and encouraged. Class time will consist of a mix between, short lectures, large and small group discussions, presentations, hands on activities, and/or field work. Students must come to class prepared to discuss the readings and/or presentation for that week. If you are going to be absent, it is still your responsibility to make sure your assignment is on time. I will not provide lecture notes to students. This is a studio class, and if you are not here, your chances of succeeding in this class are not good.

Grades

A- or A or A+ - Excellent technically and conceptually, communicates well to others, attention to detail and craftsmanship, good skill development, extra time spent.
B or B+ or B- Good work. Some technical problems and/or problems communicating concept. Skill development, good ideas.
C- or C or C+ - Complete all assignments, average work, average concept development, basic skills. Technical problems.
D - Incomplete work
F - Unacceptable work, deficient in all respects. Very late or no work.

Students’ grades will be based on class attendance, class participation, the quality and punctuality of assignments, and your overall improvement.

Assignments are due on the date assigned. For every day that your assignment is late, your grade on the assignment will drop by a third of a letter grade (unless you have a written note from a doctor).

Evaluation Criteria

40% - Sketch book/Reflection journal - Further information will be provided in class.
60% - Assignments:
   Assignment 1 - 20%
   Assignment 2 - 20%
   Assignment 3 - 20%

Ken Kam will be grading the assignments and projects.

Assignment Objectives

The assignments in this course are intended to enable you to improve your visual thinking skills and in return to enhance your graphic representation skill through the use of different materials. Generally each project includes at least three kinds of objectives: (1) subject matter communication (meaning), (2) aesthetics (composition), and (3) technical mastery (skill).

Some Guidelines for Project Critiques and Grades:

- Creativity
- Originality
- Simplicity
- Understanding of design elements: balance, focal point, etc.
- Content
- What are we looking at?
- What are you telling us?
- Is it worth looking at?
- Is it important?
- Technique
- Evidence of technical control
- Concept
- Does it fulfill the assignment? How well?
- Presentation
- Clean print
- Does the presentation work with the concept?