ARCH 6503.03: Photography in Architecture

Dalhousie University
School of Architecture
Fall 2020
Calendar Description
This class examines architectural photography from the late nineteenth century to the present. By analyzing different artists and applying various photographic styles and digital techniques, students will learn about photographic representation in architecture (practical and artistic elements of photographing exteriors and interiors of buildings).

Additional Description
The course examines:

• the use of visual material in architecture field research, focusing particularly on photography and illustration. We will examine the work of Eugene Atget, Walker Evans, Karl Blossfeldt, Bernd and Hilla Becher, and August Sander.
• photogrammetry - the practice of determining the geometric properties of objects from photographic images. This technique is very useful in generating 3D models by using photographs. We will examine the technical methods in creating a digital model using a 3D software (Blender).
• the techniques in making effective architectural photographs based on technical and aesthetic considerations.
• advance techniques in Adobe Photoshop.
• history, methods, and medium of photoethnography. Photoethnography is the art and science of representing other cultures/places visually.

Equipment for the course:
• digital SLR / mirror less camera with interchangeable lens or equivalent
• tripod
• Computer (Mac or PC)
• Software - Blender (Free), Adobe Photoshop ($20/month), online portfolio site (Free)

Learning Objectives
Students will learn:
• practical techniques in digital photographic reproduction and representation.
• different techniques in photographic compositions.
• an understanding of what is involved in the process of photoethnography and photogrammetry from fieldwork to the written account.
• about issues of visual representation/communication and test them through practical application.
• an overview of the history in architectural photography
• good knowledge in the use of software - Adobe Photoshop, Blender, and online portfolio.

Lectures
All lectures are presented by Zoom or equivalent. Students will present their work in Conceptboard or equivalent. Assignments are submitted through Brightspace.

Attendance/Class Participation:
Class time consist of a mix between, short lectures, individual critique/discussions (by appointment with Ken), and digital presentations. 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. All course related material (lectures, references material etc...) will be posted on Brightspace. Students are expected to check course Brightspace at least once a week for updates and communication.
Sequence of Projects

1. **Composition**: Students will learn pre-visualization techniques and camera vision through a series of prescribed methods & exercise.

2. **Techniques in story telling/photo-ethnography**: Artistic expression and/or story telling in architecture photography often convey a sense of place - place felt, place remembered, placed imagined. It does not matter whether the series of visual portrayals are subjective, objective, abstract, or symbolic. Rather, the portrayal must be evocative of the feel or emotional presence of the place, not merely its literal existence.

3. **From Photographs to digital 3D models (Photogrammetry)**: Explore/research the techniques of photogrammetry. Students will create a 3D digital model of an imaginary site using photographs.

### Project 1: Composition

* class time @ 11am to Noon. Weekly individual and/or small group meetings by appointment.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date*</th>
<th>Projects</th>
<th>Lectures/Discussions</th>
<th>Due Dates</th>
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<tbody>
<tr>
<td>1</td>
<td>Sept. 16</td>
<td>Composition</td>
<td>Composition / Intro. to Project 1.</td>
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<td>2</td>
<td>Sept. 23</td>
<td>Composition</td>
<td>Composition lecture - 2</td>
<td>short report online presentations</td>
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<td>3</td>
<td>Sept. 30</td>
<td>Composition</td>
<td>review work in progress</td>
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<td>4</td>
<td>Oct. 7</td>
<td>Story telling</td>
<td>Story telling Lecture - 1</td>
<td>Project 1</td>
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### Project 2: Techniques in story telling/photo-ethnography

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<thead>
<tr>
<th>Week</th>
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<th>Projects</th>
<th>Lectures/Discussions</th>
<th>Due Dates</th>
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<tr>
<td>5</td>
<td>Oct. 14</td>
<td>Story telling</td>
<td>Story telling Lecture - 1 / Intro. Project 2</td>
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<td>6</td>
<td>Oct. 21</td>
<td>Story telling</td>
<td>review work in progress</td>
<td>short report online presentations</td>
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<td>7</td>
<td>Oct. 28</td>
<td>Mid term review</td>
<td>Project 2 presentation</td>
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### Project 3: Photogrammetry

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<thead>
<tr>
<th>Week</th>
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<th>Lectures/Discussions</th>
<th>Due Dates</th>
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<tr>
<td>8</td>
<td>Nov. 4</td>
<td>Photogrammetry</td>
<td>Intro. Project 3</td>
<td>Project 2</td>
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<td>9</td>
<td>Nov. 11</td>
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<td>study break</td>
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<td>10</td>
<td>Nov. 18</td>
<td>Photogrammetry</td>
<td>review work in progress</td>
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<tr>
<td>11</td>
<td>Nov. 25</td>
<td>Photogrammetry</td>
<td>review work in progress + (SRIs)</td>
<td>Project 3</td>
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<td>12</td>
<td>Dec. 2</td>
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<td>SRIs</td>
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15 minutes of class time during the last two weeks of classes will be reserved for students to complete SRIs
Project 1: Photographic Survey and Exploration in Composition (16 images + process)

Visual communication like photography is best learned when students are engaged and involved with what they are learning. In this project, you will learn and practice several composition techniques that will help you to deliver key architectural photographic elements; this is a skill you will improve through practice and persistence. In general, good photographs result from creative and effective use of basic elements like composition, appropriate lighting, and an interesting way to capture the subject. There is no “right” way to make a photograph.

Assignment:

Step 1: Watch the following movie/report (10%): 1. The Wind Rises (2013) by Hayao Miyazaki or 2. Spirited Away (2001) by Hayao Miyazaki

Pick three scenes in the movie and write a 500 words report, with companion images and/or sketch, about the use of “cinematic compositions“ in how to visually convey a sequence of ideas, more details during class.

Step 2: Field work

After watching the film, by studying the composition techniques of the film, students will choose a subject/site/idea and use photographs as a medium to explore the idea of visual communication. The number of photographs (+process) it takes to describe the area or an idea adequately will be determined by Ken and students.

Step 3: Presentation (20%)

Online presentation of the photographic survey should be clear, well crafted, and precise. How do you present your findings? Where is the site? Multiple images and/or layout will be presented.

Reference (sections of the following books, in PDF, will be posted on Brightspace):
• Franke, S. Positions: Photography of Architecture, City and Landscape in the Netherlands, nai010 publisher. 2010

Objective:

The goal of this assignment is to observe and study cinematic film composition to expand students’ knowledge of photographic composition. Photography is a visual language that takes a lifetime to learn and perfect. Each photographer develops her/his own language to communicate thoughts or emotions through abstract symbols. To progress in photography, you must cultivate the habit of looking at the scene and seeing it in photographic characteristics of lines, tones, textures, shapes, and color. This mental ability is called pre-visualization. During this assignment, students will learn a set of guidelines to follow and/or apply when they first begin to photograph.

A more detailed grading rubric will be provided at the start of each project.
Assignment: Photoethnography of a site

Step 1: Research (10%)

Students will research three photographers from the list below and present their work online. Using different photographic techniques to explore different ways in story telling. (further information will be provided in class)

- Giovanni Antonio Canaletto (1697-1768)
- Joseph Mallord W. Turner (1775-1851)
- Hiroshige (1797-1858)
- Eugène Atget (1857-1927)
- Alfred Stieglitz (1864–1946)
- Lewis Wickes Hine (1874-1940)
- Charles Sheeler (1883-1965)
- Albert Renger-Patzsch (1897 - 1966)
- László Moholy-Nagy (1895 - 1946)
- Margaret Bourke-White (1904-1971)
- Lucien Hervé (1910 - 2007)
- Julius Shulman (1910 - 2009)
- Ezra Stoller (1915-2004)
- Alex Colville (1920-2013)
- Robert Adams (1937 - )
- Bernd & Hilla Becher (1934 - 2007)
- Candida Hofer (1944 - )
- Stephen Shore (1947 - )
- Edward Burtynsky (1955 - )
- Lewis Wickes Hine (1874-1940)
- Robert Burley (1957 - )
- Hélène Binet (1959- )

Step 2: Field work

This project is designed to ask questions about how photographers’ ideas/compositions are an influence to each other. Students will draw inspirations from the photographers they’ve researched and photograph their ethnographic ideas at a designated locations.

Step 3: Presentation (20%)

The objective and idea is to tell a story and represent the landscape using photographs. Students may use a limited amount of text, sketches, or videos to accompany their work. The online presentation of the work should be clear, well crafted, and precise.

Reference (sections of the following books, in PDF, will be posted on Brightspace):


Objective:

The goal of this project is to help students become more aware of how lighting and composition affect the overall appearance of a scene or object. Much of the work of professional photographers is done on location. Students will learn how to use available lighting effectively on location, how to find the best angles, and lighting for a site. We will explore the use of different camera techniques and using natural light in photographing exteriors, large and small spaces, and street scenes. The emphasis is on how to “write” and “create” with lighting to shape the mood of a photograph. Light is the language of photography. It is how we speak as photographers, and it informs our pictures.

“A like to look at pictures, all kinds. And all those things you absorb come out subconsciously one way or another [...] this kind of subconscious influence is good, and it certainly can work for one. In fact, the more pictures you see, the better you are as a photographer.”

- Robert Mapplethorpe
Project 3: From Photographs to digital 3D models

Photogrammetry is the science of making measurements from photographs, especially for recovering the exact positions of surface points. In project 3, students will learn:
- Key principles and concepts of photogrammetry
- Photogrammetric imaging capture workflow
- Practical information about imaging equipment, image capture setups, and software
- Learn the basic theories and techniques of 3D scanning to create models from real objects
- Software processing skills to build finished 3D content using Blender and compose a basic scene.

Assignment: 3D modeling in BLENDER

Step 1:
- select an area of interest.
- using photogrammetry or “modeling from photograph” to create a 3D model.

Step 2:
- import all 3D models in Blender.
- add the necessary atmosphere and element.
- add lighting to the scene.
- create and position camera with the 3D environment.
- render out selected images.
- import to Photoshop and perform post-production work on images.

Step 3:
Online presentation of the work should be clear, well crafted, and precise.

Reference:
- http://www.gabbitt.co.uk
- https://alicevision.org
- https://www.blendernation.com

Objective:
- Create a 3D model from real subject
- Add digital environment
- Using virtual camera to capture a scene

A more detailed grading rubric will be provided at the start of each project.
Evaluation
Project 1 (Photographic Survey & Exploration in Composition) - 30% (10% - online presentation + 20% project)
Project 2 (Photoethnography) - 30% (10% - online presentation + 20% project)
Project 3 (From Photographs to digital 3D models)- 30%
Online process portfolio - 10%

University Standards for Individual Assignments
• Excellent: A+ (90–100%), A (85–89%), A– (80–84%): Considerable evidence of original thinking; outstanding capacity to analyze and synthesize; outstanding grasp of subject matter; evidence of extensive knowledge base.
• Good: B+ (77–79%), B (73–76%), B– (70–72%): Evidence of grasp of subject matter, some evidence of critical capacity and analytical ability; reasonable understanding of relevant issues; evidence of familiarity with the literature.
• Satisfactory (C–, C, C+): Evidence of some understanding of the subject matter; ability to develop solutions to simple problems; benefiting from his/her university experience.
• Marginal pass (D): Evidence of minimally acceptable familiarity with subject matter, critical and analytical skills.
• Inadequate: F (0–69%): Insufficient evidence of understanding of the subject matter; weakness in critical and analytical skills; limited or irrelevant use of the literature.

Late Submission
An extension to a due date requires a Student Declaration of Absence (up to three days) or a medical note (more than three days); otherwise, a late assignment will be deducted a third of a letter grade (e.g., from A to A–) per weekday.

As this is a graduate course, a final grade below B– will be recorded as an F. The instructor will grade the assignments. Written comments will be provided.

A detailed evaluation / grading rubric will be provided at the start of each project.

Additional evaluation criteria for each project and its process are based on (but not limited to):
• preparation for class presentations, contribution to class discussions based on your work and own experience.
• proper citation and usage of reference material. (Guidelines for citing sources - tinyurl.com/dal-arch-writing)
• students are expected to use but NOT LIMITED to reference material provided in the course outline.

Assignment Objectives
The projects in this course are intended to enable you to improve your photographic skills and in return to enhance your architectural representation skill through the use of images. Generally each project includes at least three kinds of objectives: (1) subject matter communication (meaning), (2) aesthetics (composition), and (3) technical mastery (skill). A major goal of the assignments is to become aware of photographic decisions. Taking pictures is so easy (anybody can do it) but the most important goal of the assignments is to make it challenging and meaningful. This happens as we recognize more options in photographic representation and how they influence the outcome.

Submissions
All projects will be submitted digital on Brightspace.
Please refer to “https://www.dal.ca/faculty/architecture-planning/school-of-architecture/current-students/school-works/regulations.html” for University Policies and Resources.

More References: