ARCH 3115: Modern Architecture and Art Workshop

Spring Term 2015: Tues. evenings 6:05-8:55 pm + a 20 min weekly meeting with instructor
3 credit hours   [may fulfill a required course for proposed Architecture Minor]
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course description + objectives

In recent years, the connections between architecture, art, and design have, in many cases, become inextricably bound to one another in a kind of symbiotic relationship.
Robert. C. Morgan, *art critic*

CUBISM | Georges Braque, paper collage
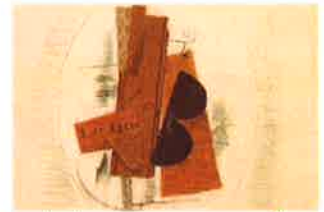
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CONSTRUCTIVISM | Vladimir Tatlin, Tower project

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This course introduces majors from all fields at Georgia Tech to architectural design as a collaborative dialogue with modern art. Central to the course is a hands-on design workshop providing one-on-one design instruction supported with a series of readings, visual presentations, and discussions—aimed at providing a transformative learning experience. No previous background in architecture, design or art is required...only a curious and open mind.

eHOUSE type | Lab Zero, Mobile Module

As a discipline, Architecture advances the art and science of building to satisfy social and cultural needs through the design of functional, sustainable, and meaningful environments. Like art, it reflects on our contemporary condition, mediating between the worlds of nature and technology, and reflects on its own nature—past, present, and future. Architects work with a design process capable of operating across scales and terrains, from chair to room to building to urban system to the landscapes that contain them, analyzing and synthesizing knowledge from whatever contexts are needed to propose effective design solutions.
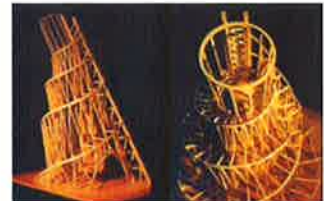
Architectural design-thinking in architecture does not require an aptitude innate to architects but is something that can be readily learned by others and applied to problem-solving in other fields. To these ends and those of personal discovery, students gain the following knowledge and skills in the course:

LIGHT SPACE ART | James Turrell, Skyspace

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o **understanding** of the design thinking process as applied to the definition and solution of architectural design problems through two different cases.

o **understanding** of the historical construction and exchange of significant ideas between modern architecture and art, and their ongoing usefulness.

o **understanding** of the methods of synthesis and application of these ideas to the development of innovative, evolutionary building types.

LAND ART | Robert Morris, Lelystad Observatory

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o **understanding** of manual and digital techniques of representation used in the architectural design process and their application.

o **understanding** of the related development and communication of the key arguments and ethical positions of an architectural design project.

Course performance is evaluated in terms of class attendance, participation, a design notebook maintained throughout the semester, and the development of two design projects and related artwork: a portable, micro-compact house of the future, and a site-specific, chapel-observatory for contemplation at Georgia Tech. There are no exams in the course, and no books to purchase. Pdfs of readings, and the materials and tools needed are provided. Key softwares taught in the course— *SketchUp* & *Kerkythea*—are open source and free, so they can be used during the course and afterwards. Other softwares used like *Illustrator* and *Photoshop* are available inside and outside of the College of Architecture through a virtual lab.

CHAPEL-OBSERVATORY type | Ann Hamilton
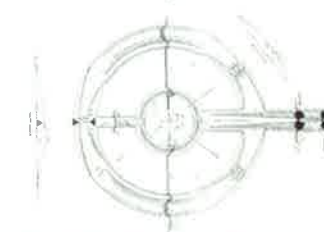
course procedures + organization

The larger section of 18-20 students is typically organized as three smaller architectural design studios of 6-7 students, each with its own teaching assistant/mentor instructing in techniques of representation and facilitating the larger process of the course. To facilitate the ongoing design process, each student is also meets with their instructor and their group's teaching assistant-mentor in the course workspace for twenty minutes each week at a set day and time selected by students in the first class. The schedule of days and times for these meetings is announced at the first class, and students sign up for the section, day and time that works best with their schedule. These meetings provide each student the one-on-one instruction that is essential to their education in design. Students bring their notebook/sketchbooks and drawings with them to show their new work since the last class and receive feedback on it. It is also a chance for students to ask any questions they have, and to develop an ongoing dialogue about the interconnected natures of art and architecture as their individual design process develops.

Visual presentations are made regularly to both sections together Tuesday evenings, in Room 258, CoA West, starting promptly at 6:05pm. These cover a range of materials, from a series of revolutionary ideas and techniques developed by modern art and architecture to their translation and transformation in more recent work. These presentations are typically followed by conversations about their continued relevance and application of these ideas and techniques to the field of architecture. They are then directly linked to engagement and transformation by each student in two pairs of interrelated design projects covered in written briefs that build systematically on one another throughout the course. Orientations to each of the design exercises will typically follow the visual presentations during this first hour of class. Powerpoint presentations are then posted for your use in the 'resources' section of the course T-Square site for each of the two section.

The visual presentations and dialogue sessions are typically followed by tutorials in Room 359 given by our course graduate teaching assistant/mentors on different types of architectural representation---manual and digital--- used in the course design process. Each student will have a computer to use during class, but due to the limited number of computers available in the College outside of class times, a special virtual lab of the software needed in the course is also provided by the College of Architecture for use at locations outside of the College by non-CoA majors taking the course.

During the third hour of Tuesday evenings, in the workshop portion of each class, students meet and work together with their groups in the 3rd floor CoA West workspace provided for the course, getting feedback on their work from their instructor and mentors, individually and in group pin-ups.   At the end of each pair of exercises, students present their work and process in a class-wide review. Ongoing work of each student is kept pinned up on the panel/walls of the workspace to facilitate ongoing conversations about the work. Materials needed for the course are largely provided and stored in a locked cabinet in the workspace, and there is another cabinet provided for each of the two sections to store ongoing work.

To support all of the processes above is a series of brief readings by artists and architects to help develop the content of visual presentations, and inform the development of each student's critical thinking relative to each of their design projects. These readings are listed in the 'course schedule' below and posted as pdf's in the 'resources' section of each of the two sections' T-Square site.

course requirements

1. <u>Classes begin promptly at 6:05pm each Tuesday, Room 258</u> (CoA West) and runs until 8:55pm. Attendance is taken at the beginning of each class (10+ mins late to class =1 tardy; 2 tardies = an unexcused absence).
2. <u>Excused absences must be documented. Two unexcused absences equals four classes and therefore, may result in the lowering of the final grade for the course. A missed appointment = ½ an unexcused absence.</u>
3. Students are required to do required readings before the designated class, available as pdf's through the course T-Square website, as are the presentations given by the instructors and the TA's.
4. Students are provided a notebook/sketchbook at the 2nd class and required to record at one end their notes on presentations, and at the other end, notes on the development of their design ideas in text and sketches. It is submitted periodically for evaluation and feedback.
5. Students must meet the minimum requirements and deadlines for all assignments as written in hand-outs for each exercise. Other materials should always be added to these requirements as needed.
6. Students need to have their journals and new physical evidence of their process of thinking &making at each desk crit and pin-up as assigned---hard copies of digital documents printed out by start of class.

7. Students have account access to CoA printers on the third floor of CoA west, and must allow the time necessary to print out deliverables before they are due.
8. To receive updates on course-related information, students in the course must be accessible through their official Georgia Tech/T-Square email address, and must respond to emails when it is requested.
9. Students must regularly make oral presentations of their work to the class and engage in class-wide discussions. Active participation in these sessions is an essential part of the design learning process.
10. Students are responsible for digitally documenting their studio work as jpegs and uploading it to their section's course folder promptly at the end of the course.
11. Given the limits of time, sustained commitment, and effective time management are essential for a successful performance. Questions on any issue should be asked immediately to avoid loss of time.
12. Students with disabilities requiring special accommodations must obtain an accommodations letter from the ADAPTS Office [www.adapts.gatech.edu] to ensure appropriate arrangements.
13. Georgia Tech cultivates community based on trust, academic integrity & honor. Students must act in accordance with Georgia Tech's Honor Code: http://www.catalog.gatech.edu/rules_regulations/#18
14. Cell phones must be turned off during class, and remain turned off throughout. Unless directed otherwise, no electronic devices of any type may be turned on or used during presentation.
15. In case of emergency (i.e. fire, accident, criminal act), call the Georgia Tech Police at 894-2500. Please note that Perry Minyard, IT Support Administrator is also a firefighter / Emergency Medical Technician (EMT).
16. Noise should be kept to a minimum at all times. In respect of others, music may be listened to only outside of class and then only through headphones, including evenings and weekends.
17. All softwares that are used in conjunction with producing any course work must be done in strict observation all end-user agreements.
18. In case of problems associated with the use the virtual lab provided for use in the course, please email or contact Perry Minyard, CoA Director of Information Technology, at perry.minyard@coa.gatech.edu |
19. Workspace and review spaces are communal spaces and therefore, must be kept clean at all times. No personal belongings should be left in the class workspace between classes or computers left unattended.

course evaluation criteria + policy on absences

Attendance, sustained commitment and depth of engagement with course issues as well as sustained progress and timely completion of work provide the foundation of each student's grade. Design thinking and making (i.e. craftsmanship) matter greatly and factor equally in the evaluation of your performance on each exercise and are evaluated as follows.

effort [disciplined, self-driven intensity + timely completion] = 33.3% of each grade

findings [clarity + compelling-ness] = 33.3% of each grade

communication [visual craft + verbal craft/dialogue] = 33.3% of each grade

Overall performance for the semester is evaluated and 'weighted' in the final grade as follows:

PART I.a = 15%

PART I.b = 30%

PART II.a = 15%

PART II.B = 30%

notebook/sketchbook = 10%

Because the class meets only once a week, each class counts as two classes, attendance is very important. Attendance for each class is recorded by each group's teaching assistant at five minutes after the start of class and at each student's weekly appointment. Excused absences are are only for health- or emergency-related reasons and require prompt documentation. A second unexcused absence can result in the lowering of the final grade by a letter grade. Grades are given twice during the course: at midterm, following the completion of PART I, and at the end of the semester, at the completion of PART II.

course schedule of topics, readings + process

_____ **PART I**

week 01 01/06 **orientation:** Introduction to course; PART I.a: collage thinking and making brief
presentation: How to Be Creative; Cubism in Art & Architecture; *videos*
tutorial: creating analytical collage overlays in *Illustrator*
_____**workshop:** formation of sections & groups; collage analysis/advice on gathering collage materials

week 02 01/13 **readings** *[3]:* A. Gleizes/J. Metzinger, J. Gris, and C.-E. Jeanneret/A. Ozenfant,
presentation: Constructivism in Art & Architecture; *video*
tutorial: constructing paper collages + study models
_____**workshop:** section/group meetings

week 03 01/20 **readings** *[3]:* V. Tatlin, N. Gabo/A. Pevsner, and A. Rodchenko/V. Stepanova
presentation: eHOUSE Typology; PART I.b: eHOUSE brief
tutorial: setting up layers in *SketchUp*
_____**class-wide pin-up:** collages

week 04 01/27 **readings** *[2]:* J. Shields, and P. Kulper
presentation: Cubism and Constructivism in Later Architecture
tutorial: cutting/capturing plans and sections in *SketchUp*
_____**workshop:** section meetings

week 05 02/03 **presentation:** Architectural Drawings: Orthographic Projections
tutorial: adjusting drawing line-weights in *Illustrator*
workshop: section meetings and pin-ups

week 06 02/10 **presentation:** tba
tutorial: working with *InDesign* templates for PART I review
class-wide pin-up: eHOUSE

week 07 02/17 **PART I.a+b REVIEW:** final documents and notebook/sketchbook submission

_____ **PART II**

week 08 02/24 **readings***[1]:* R. Clark
presentation: Light & Space Art Group; PART II.a: light environments brief; *videos*
tutorial: taking SketchUp models into Kerkythea
_____**workshop:** section meetings

week 09 03/03 **reading** *[1]:* R. Irwin
presentation: Light & Space continued; *videos*
tutorial: *SketchUp/Kerkythea* continued
_____**workshop:** light-material-space pin-ups

week 10 03/10 **reading** *[2]:* R. Smithson and R. Krauss
presentation: Land & Environmental Art; Light Studies; PART II.b Chapel-Observatory brief; *videos*
tutorial: navigating digital site/context modes in *SketchUp*
_____**workshop:** light-material-space pin-ups

week 11 03/17 SPRING BREAK

week 12 03/24 **presentation:** Light/Space & Environmental Art Ideas in Later Architecture; PART II.b: Chapel-Observatory brief
tutorial: manipulating site/context model in *SketchUp*
workshop: light-material-space Chapel/Observatory *parti* pin-ups

week 13 03/31 **presentation:** Material/Tectonic Dimensions
tutorial: creating concept diagrams in *Illustrator*
workshop: section meetings and pin-ups

week 14 04/07 **presentation:** The Art of Architectural Renderings
tutorial: creating 'killer' renderings in *Photoshop*
workshop: developed Chapel/Observatory design pin-ups

week 15 04/14 **presentation:** Presentation Diagrams of Projects
tutorial: working with *InDesign* Templates for PART II review
workshop: section meetings and pin-ups

week 16 04/21 no classes in the CoA
tba at assigned exam time : **PART II.a + b REVIEW:** final documents and notebook/sketchbook submission

course bibliography by subject [on course reserve in the Architecture Library]

art + architectural aesthetic theory
Chipp, Herchell B. *Theories of Modern Art. A Source Book by Artists and Critics.* Berkeley: University of California Press, 1984.
N 6450 .C62 1984

Conrads, Ulrich. *Programs and manifestoes on 20th-century architecture.* Cambridge, Mass., MIT Press, 1970.
NA680 .C6213 1970B

Harrison, Charles/Paul Wood (eds). *Art in Theory 1900-1990.* Oxford: Blackwell, 1993.
N6490 .A7167 1993

Cubism/collage history + theory
Daix, Pierre. *Cubists and Cubism.* New York: Rizzoli, 1982.
ND196 .C8 D34 1982

Golding, John. *Cubism: a History and an Analysis 1907-1914.* New York: Wittenborn, 1951.
ND196 .C8 G6

Wolfram, Eddie. *History of Collage: an Anthology of Collage, Assemblage and Event Structures.* New York: MacMillan
Publishing Co., 1975   **N6494 .C6 W64 1975**

techniques of 'collage'
Brigadier, Anne. *Collage: A Complete Guide for Artists.* New York: Watson-Guptill, 1978.
N6494 .C6 1978

Rodari, Florian. *Collage: Pasted, Cut, and Torn Papers.* New York: Rizzoli, 1988.
N7433.7 .R6313 1988

Talbot, Jonathan. *Collage: a New Approach.* Warwick, NY: Jonathan Talbot, 2001.
N6494 C6 T35 2001

'collage ideas' in architecture and urbanism
Braham, William. *Modern Color/Modern Architecture: Amédée Ozenfant and the Genealogy of Color in Modern
Architecture.* London: Ashgate, 2002.   **NA2795 .B73 2002**
Chard, Nat / Perry Kulper. *Pamphlet Architecture 34: Fathoming the Unfathomable.* Princeton Architectural Press, 2014.
NA2760 .C44 2014

Corner, James. *Taking Measures Across the Landscape.* New Haven: Yale University Press, 1996.

Nicholson, Ben. *Appliance House.* Chicago Institute for Architecture and Urbanism; Cambridge, Mass: MIT Press, 1990.
NA2707 .N5 A4 1990

Rowe, Colin / Fred Koetter. *Collage City.* Cambridge, Mass: MIT Press, 1984.
NA9050 .R68

_____/ Robert Slutzky. *The Mathematics of the Ideal Villa, and other essays*, Cambridge, Mass. MIT Press, 1976
NA7110. R10

Shields, Jennifer. *Collage and Architecture.* New York: Routledge, 2013.
electronic book online @ **http://site.ebrary.com/lib/gatech/detail.action?docID=10825987**
Weber, Heidi. *Le Corbusier, the Artist: Works from the Heidi Weber Collection.* Zurich: Edition Heidi Weber.
N6848 .L43X 1988

Constructivism history, theory + examples
Cooke, Catherine. *Russian avant-garde theories of art, architecture and the city.* London: Academy Editions, 1995.
NA1188 .C66X 1995
Fosso, Mario et al. *Konstantin S. Mel'nikov and the Construction of Moscow.* New York: Abbeville/Thames & Hudson, 2000.
NA1188.5.M4 K66x 2000
Khan-Magomedov, Selim Omarovich. *Alexandr Vesnin and Russian Constructivism.* New York: Rizzoli, 1986.
N6988 .V48 K4313 1986
Khan-Magomedov, Selim Omarovich. *Pioneers of Soviet Architecture: the Search for New Solutions in the 1920s and 1930s.*
New York: Rizzoli, 1987.   **NA1188 .K46 1987**
Johnson, Philip/Mark Wigley. *Deconstructivist Architecture.* New York: MoMA, 1988.
NA682 .D43 J6 1988
Lodder, Christine. *Russian Constructivism.* New Haven: Yale University Press, 1983
N6988.5 .C64 L3 1983
Rickey, George. *Constructivism: origins and evolution.* New York: George Braziller, 1967.
NA6494 R53X 1995
Zygas, Kestutis Paul. *Form Follows Form: Source Imagery of Constructivist Architecture.* Ann Arbor: U. Michigan Press,1981.
NA682 .C65 Z93 1981

'constructivism ideas' in later architecture and urbanism
Papadakes, A./C. Cooke/A. Benjamin. *Deconstruction: omnibus volume.* New York: Rizzoli, 1989.
N6490 .D377 1989

Papadakes, Andreas (ed). *Deconstruction II* [Architecture Design Profile]. London: Academy Editions
NA682 .D43 D43X 1994

light, space art history, theory + examples
Butterfield, Jan. The *Art of Light and Space.* New York: Abbeville Press, 1996.
on order

Irwin, Robert. *Being and Circumstance: Notes Toward a Conditional Art.* Larkspur Landing: The Lapis Press, 1985.
NB237 .I78 A4 1985

land art history, theory + examples
Flam, Jack, (ed). *Robert Smithson: the Collected Writings*. Berkeley: University of California Press, 1996.

N7445.2 .S62 A35 1996

Kastner, Jeffrey/Brian Wallis. *Land and Environmental Art*. London: Phaidon Press, 1998.

N6494 .E27 L36

'light/space ideas' and 'land art ideas' in later architecture and urbanism
Juhani, Pallasmaa. *The Eyes of the Skin: architecture and the senses*. London: Academy Editions, 1996.

NA2500 .P34 1996

Riley, Terence. *Light Construction*. New York: MoMA, 1995.

David Seamon/Robert Mugerauer (eds), *Dwelling, Place & Environment: Towards a Phenomenology of Person and World*. Krieger Publishing, 2000. **GF21 .D83 1989**

online sources for videos shown in presentations
"How to be Creative" [Off Book / PBS Digital Studios] https://www.youtube.com/watch?v=weiQIthC3Ks

"Behind the Scenes" [Perry Kulper Lecture] http://www.youtube.com/watch?v=QVf1wzk13-8

"James Turrell - Roden Crater" http://www.youtube.com/watch?v=Wx2W_oDflnU

"James Turrell - Looking at Light I" Charlie Rose, July 1, 2013 http://www.youtube.com/watch?v=_bvg6kaWleo

"James Turrell at LACMA, 2013" http://www.youtube.com/watch?v=pFDkplvHDkc

"Juhani Pallasmaa-Minding Design Symposium" http://www.youtube.com/watch?v=qSyuSvVeKfQ

"Malevich, First Look" [Achim Borchardt-Hume] TateShots http://www.youtube.com/watch?v=UWofzvBCnLc

"Picasso Posse: Collage & Papier Collé" [M. Taylor] http://www.youtube.com/watch?v=IHmeRiR5s_U

"Picasso Posse: Picasso & Braque: Inventing Cubism" [M. Taylor] http://www.youtube.com/watch?v=yJ1zcViAUBc

"Picasso Posse: Reordering of Reality" [M. Taylor] http://www.youtube.com/watch?v=OqKap69JySI

"Picasso Posse: What's the Avant-Garde?" [M. Taylor] http://www.youtube.com/watch?v=D_D4pwe7NSI

"Robert Irwin Veils the Whitney in Light" http://www.youtube.com/watch?v=J_oHzl8qG-0

"Rodchenko and Popova" [Ben Borthwick] TateShots http://www.youtube.com/watch?v=DLkNPD6kdkw

"Olafur Eliasson" TateShots http://www.tate.org.uk/context-comment/video/tateshots-olafur-eliasson

"Secrets"/Elliot Hundley ART 21 http://video.pbs.org/video/2365356757/

"Vladimir Tatlin Retrospective" http://www.youtube.com/watch?v=dIWdEJiv0TI

online sources for information on art terms, artists and movements
http://www.oxfordartonline.com/

online source for additional examples of 'collage' [high resolution jpegs]
http://www.wikiart.org/en/paintings-by-technique/collage?firstArtist=pablo-picasso#artist-pablo-picasso

artist websites
Olafur Eilasson http://www.olafureliasson.net/

James Turrell http://www.youtube.com/watch?v=pFDkplvHDkc

Ann Hamilton http://www.annhamiltonstudio.com/projectsMORE.html

FELD studio for digital crafts http://www.feld.is/

architect websites
OMA | AMO http://www.oma.eu/projects

Zaha Hadid http://www.zaha-hadid.com/

Lab Zero/Flavio Galvagni http://www.lab-zero.com/

Daniel Libeskind http://daniel-libeskind.com/projects

Richard Meier http://www.richardmeier.com/

Achim Menges http://www.achimmenges.net/?cat=236

MVRDV http://www.mvrdv.nl/projects/

Point Supreme http://www.pointsupreme.com/content/

time[scape]lab http://www.timescapelab.com/