

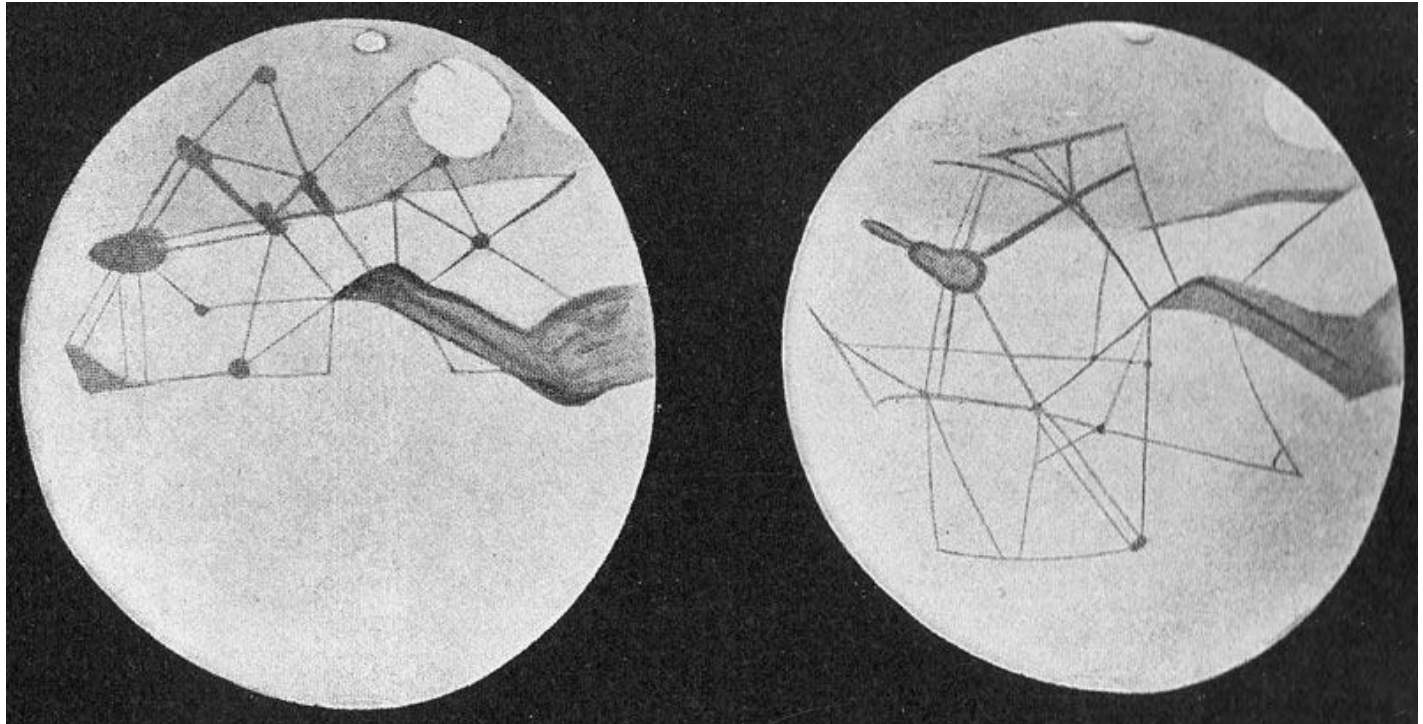
ARCHITECTURAL REPRESENTATION I	FALL 2021 ARCH 1101 SYLLABUS	INSTRUCTORS GALO CANIZARES galo.canizares@ttu.edu	TEXAS TECH COLLEGE OF ARCHITECTURE
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#### CATALOG DESCRIPTION

An introduction to the techniques and methods of architectural representation with an emphasis on utilizing architectural projection systems to describe form, space, and geometry.

#### TIME

GROUP 1 – M/W 12PM–12:50PM  
GROUP 2 – T/R 12PM–12:50PM  
GROUP 3 – T/R 4:30PM–5:20PM



Martian canals depicted by Percival Lowell c. 1900.

#### COURSE DESCRIPTION

“Representation has to do with the way the mind organizes and processes “information,” which encompasses all the kinds of stimuli —signals, symbols, and images —that we absorb, collect, and manipulate to make sense of the world and our relation to it...As understood in the disciplinary contexts of art history, visual studies, film studies, and so forth, representation enacts a selective interpretation and an “enframing” of the world to communicate a particular kind of knowledge or experience.”

-Meredith Hoy, From Point to Pixel, A Genealogy of Digital Aesthetics

This course will introduce students to architectural representation and its conceptual and practical underpinnings. If, as Meredith Hoy reminds us, representation deals with the conveyance of information through signals, symbols, images, and marks, then this course asks, how have those signals, symbols, images, and marks been codified as conventions in the discipline of architecture? How do drawings of buildings and building components communicate both legibly and powerfully?

For our purposes, we will state plainly that architectural representation has two primary roles:

1. to communicate
2. to make an argument

These two roles will guide us as we make our way through the murky waters of architectural representation. We will examine the conventions used to communicate ideas through architectural notations such as plans, sections, and elevations. We will also examine the ways in which drawings put forth arguments such as

diagrams and perspectival depictions (drawings with a point of view). Because drawing is at the core of architectural representation, we will explore the relationship between points, lines, shapes, figures, and 2-dimensional depictions of 3-dimensional objects. Drawing here will refer to the use of these components in either analog, digital, or hybrid media.

Representation can take many forms; especially given today's reliance on a wide software landscape. Contemporary tools for visualization, graphical analysis, documentation, and expression not only vary widely in features and functions, but they are also updated on an annual basis or faster. Thus, in this course, we will prioritize a rigorous conceptual understanding of representation's *technics*—methods, techniques, and knowledge that transcend specific software applications and will apply to the world of analog, digital, and hybrid technologies.

STUDENT LEARNING OBJECTIVES	TEACHING METHODS
<p>After completion of this course, students should be able to:</p> <p><b>Concepts</b></p> <ul style="list-style-type: none"> <li>→ Describe the purpose(s) and role(s) of representation in architecture.</li> <li>→ Articulate the difference between 1D, 2D, and 3D representation.</li> <li>→ Demonstrate an understanding of software as a tool for both thinking and producing.</li> </ul> <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>→ Utilize a system of line-weights to effectively order information.</li> <li>→ Construct architectural drawings through a process of layering information, beginning with construction lines.</li> <li>→ Accurately analyze and represent proportions and formal relationships between elements within a whole.</li> <li>→ Identify architectural projection systems as either orthographic, perspectival, or paraline.</li> <li>→ Apply architectural projection systems deliberately, in terms of their 2D and 3D descriptive capabilities and biases.</li> </ul> <p><b>NAAB Criteria Met</b>            PC.4 History and Theory—Understanding (U)            SC.4 Technical Knowledge—Understanding (U)</p>	<p>This course will consist primarily of lectures and in-class discussions. Thematically, the semester will be broken down into three modules:</p> <ul style="list-style-type: none"> <li>→ Part I - 1D               <ul style="list-style-type: none"> <li>◆ Points and Lines</li> </ul> </li> <li>→ Part II - 2D               <ul style="list-style-type: none"> <li>◆ Polygons and Figures</li> </ul> </li> <li>→ Part III - 3D               <ul style="list-style-type: none"> <li>◆ Forms and Volumes</li> </ul> </li> </ul> <p>Readings will be done in-class in an interactive format where students can ask for clarifications on concepts and key words.</p>
	<p><b>MEANS OF EVALUATION</b></p>
	<p>Students will be evaluated through: class participation, weekly quizzes, drawing assignments, analytical assignments. Class participation includes in-class discussion and attendance. There will be weekly quizzes to test students' knowledge of key concepts covered thus far. Quizzes will be conducted in class. Drawing assignments will be technical exercises designed to familiarize students with software skills and techniques used in the design process. Emphasis will be on a feedback loop between ideation and documentation. Analytical assignments will look at contemporary visual culture and will ask students to look closely and diagram out the logics of work by artists, architects, and designers.</p>
STUDENT PERFORMANCE OBJECTIVES	GRADING
<p>After completion of this course, students should be able to:</p> <ul style="list-style-type: none"> <li>→ Produce coherent drawings and images using design software.</li> <li>→ Produce graphical analyses of images and drawings made by others.</li> </ul>	<p>Assignment weights will be broken down as follows:</p> <ul style="list-style-type: none"> <li>→ Class participation (20%)</li> <li>→ Weekly quizzes (20%)</li> <li>→ Drawing assignments (30%)</li> <li>→ Analytical assignments (30%)</li> </ul> <p>Grading will follow the TTU standard A-F grading scale. Grades will be posted through Blackboard or sent via university email.</p>

## COURSE REQUIREMENTS

**Students must have some form of drawing—that is to say, making marks on a stable surface. This could be a digital tablet, paper sketchbook, or bundle of sticky notes...This will be used during every class.**

### Software/Hardware

Students must have and maintain their own laptop computer for this class. A computer is required on the first day and must meet the minimum specifications outlined at [http://arch.ttu.edu/wiki/Computer\\_Requirement](http://arch.ttu.edu/wiki/Computer_Requirement). Students must have the latest versions of the following software installed on their computers:

Adobe Creative Cloud or Creative Suite. Specifically, students must have access to Acrobat, Photoshop, Illustrator, and InDesign.

Rhino3D (educational)

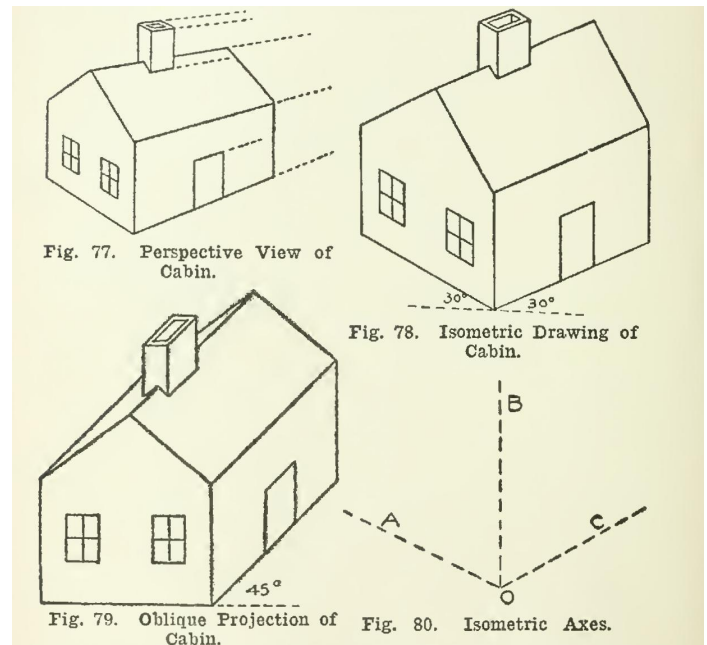
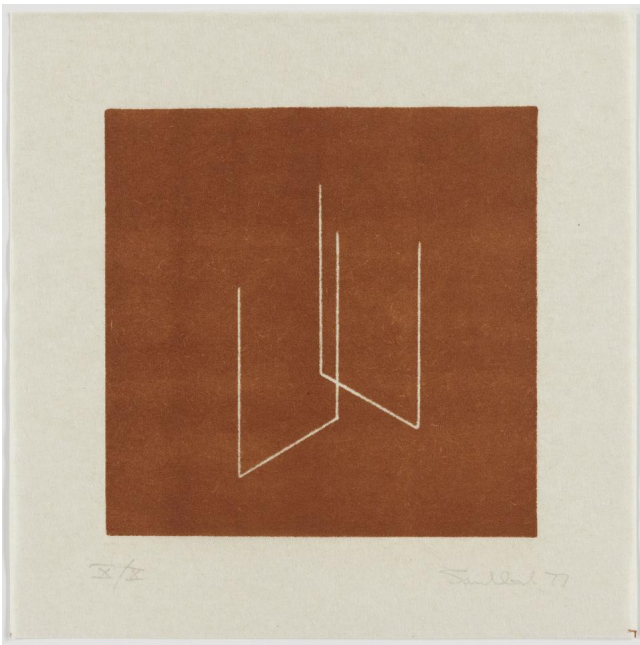
Blender

Free and open-source alternatives to creative cloud can also be found here:

~~Photoshop~~ - GIMP <https://www.gimp.org/>

~~Illustrator~~ - Inkscape <https://inkscape.org/>

~~InDesign~~ - Scribus <https://www.scribus.net/>



## REQUIRED TEXTS

All texts will be provided via file sharing links.

- Wassily Kandinsky, *Point and Line to Plane* (Cranbrook Press, 1947).
- Peter Cook, *Drawing: The Motive Force of Architecture* (John Wiley & Sons, 2008).

Online resources:

- Socks Studio - <https://socks-studio.com/>
- RNDRD - <https://rndrd.com/>
- Archive of Affinities - <https://archiveofaffinities.tumblr.com/archive>
- Are.na channel - <https://www.are.na/galo-canizares>

COURSE SCHEDULE		
WEEK	TOPIC	ASSIGNMENTS
1 - 08/26/21	Introduction to the first dimension and the picture plane.	
2 - 09/02/21 Quiz 1	In-class reading: Kandinsky, "Point" in <i>Point and Line to Plane</i>	ASSIGNMENT 01 Make a drawing using only points in your chosen software.
3 - 09/09/21 Quiz 2	In-class reading: Kandinsky, "Line" in <i>Point and Line to Plane</i>	ASSIGNMENT 02 Make a drawing using only lines in your chosen software.
4 - 09/16/21 Quiz 3	The Importance of Lines: Picture Plane	ASSIGNMENT 03 Analyze the lines of an Isometric
5 - 09/23/21 Quiz 4	Introduction to the second dimension: polygons and figures.	ASSIGNMENT 04 Analyze an abstract painting.
6 - 09/30/21 Quiz 5	In-class reading: Kandinsky, "Basic Plane" in <i>Point and Line to Plane</i>	ASSIGNMENT 05 Make 4 basic 2D compositions that follow the themes of "balanced", "centripetal", "kinetic", "particulate"
7 - 10/07/21 Quiz 6	The Picture Plane: Projection and Cutting.	ASSIGNMENT 06 Make a plan, section, and elevation of an everyday object.
8 - 10/14/21 Quiz 7	In-class reading: Cook, "Drawing and Strategy" in <i>Drawing</i>	ASSIGNMENT 07 Analyze a strategic drawing.
9 - 10/21/21 Quiz 8	Introduction to the third dimension: forms and volumes.	ASSIGNMENT 08 Model an everyday object in 3D.
10 - 10/28/21 Quiz 9	Descriptive Geometry: Parallel Projection	ASSIGNMENT 09 Document your 3D object in parallel projection using line weights.
11 - 11/04/21 Quiz 10	Descriptive Geometry: Perspective	ASSIGNMENT 10 Document your 3D object in perspective using line weights.
12 - 11/11/21 Quiz 11	In-class reading: Cook, "Drawing and Technics" in <i>Drawing</i>	ASSIGNMENT 11 Analyze a technical drawing.
13 - 11/18/21 Quiz 12	Diagramming	ASSIGNMENT 12 Make a "patent" documentation of your 3D object.

## COURSE POLICIES

### ATTENDANCE

Students are expected to attend all scheduled class meeting times and related events as outlined in the course syllabus. In general, there are five situations which constitute an "excused absence": personal illness, death of an immediate family member, military or government duty, University sanctioned events, and major religious holidays. Other situations may be evaluated on a case-by-case basis and students are encouraged to discuss with the instructor as soon as a potential issue arises. Documentation may be required.

### DEADLINES

Students who miss deadlines due to valid, extenuating circumstances may submit the required work at a date agreed upon with the instructor. Students should contact the instructor to arrange a discussion within one week of the missed classes and/or work.

Unexcused work will not be accepted, incomplete projects will be evaluated in relation to their degree of completion.

Students should be aware that grade records are not required to be kept longer than two terms beyond the course offering. Any issues about grades should be reported to the instructor as soon as possible, and no later than the next active term (Fall term for spring or summer courses, spring for fall courses.)

### PROJECT DOCUMENTATION

Students must provide project documentation as requested by the instructors of the course. Failure to provide this information by the deadline may result in a grade of "Incomplete" and could result in a drop in grade.

## COVID-19 INFORMATION

**Face Covering Policy:** As of May 19, 2021, face coverings are now optional in TTU facilities and classrooms, and all other COVID-19 campus protocols have been lifted. It is highly recommended that those who have not been vaccinated for COVID-19 wear face coverings to help prevent the spread of the virus.

**Seating Charts and Social Distancing:** There is no longer a mandated social distancing protocol for classroom seating, but diligence is encouraged when indoors and not wearing masks. A seating chart might be used in the classroom to facilitate attendance, class interactions and other in-class engagement activities.

### **Illness-Based Absence Policy:**

Absences will be excused and extensions will be granted with proper documentation. Details will be worked out on a case-by-case basis.

**Personal Hygiene:** We all should continue to practice frequent hand washing, use hand sanitizers after touching high-touch points (e.g., door handles, shared keyboards, etc.), and cover faces when coughing or sneezing.

**Potential Changes:** The University will follow CDC, State, and TTU System guidelines in continuing to manage the campus implications of COVID-19. Any changes affecting class policies or delivery modality will be in accordance with those guidelines and announced as soon as possible.

## UNIVERSITY REQUIRED STATEMENTS

### ADA STATEMENT:

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.

#### ACADEMIC INTEGRITY STATEMENT:

Academic integrity is taking responsibility for one's own class and/or course work, being individually accountable, and demonstrating intellectual honesty and ethical behavior. Academic integrity is a personal choice to abide by the standards of intellectual honesty and responsibility. Because education is a shared effort to achieve learning through the exchange of ideas, students, faculty, and staff have the collective responsibility to build mutual trust and respect. Ethical behavior and independent thought are essential for the highest level of academic achievement, which then must be measured. Academic achievement includes scholarship, teaching, and learning, all of which are shared endeavors. Grades are a device used to quantify the successful accumulation of knowledge through learning. Adhering to the standards of academic integrity ensures grades are earned honestly. Academic integrity is the foundation upon which students, faculty, and staff build their educational and professional careers. [Texas Tech University ("University") Quality Enhancement Plan, Academic Integrity Task Force, 2010]

#### RELIGIOUS HOLY DAY STATEMENT:

"Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20. A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused under section 2 may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

#### DISCRIMINATION, HARASSMENT, AND SEXUAL VIOLENCE STATEMENT:

Texas Tech University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from gender and/or sex discrimination of any kind. Sexual assault, discrimination, harassment, and other Title IX violations are not tolerated by the University. Report any incidents to the Office for Student Rights & Resolution, (806)-742-SAFE (7233) or file a report online at [titleix.ttu.edu/students](http://titleix.ttu.edu/students). Faculty and staff members at TTU are committed to connecting you to resources on campus. Some of these available resources are: TTU Student Counseling Center, 806-742-3674, <https://www.depts.ttu.edu/scc/> (Provides confidential support on campus.) TTU 24-hour Crisis Helpline, 806-742-5555, (Assists students who are experiencing a mental health or interpersonal violence crisis. If you call the helpline, you will speak with a mental health counselor.) Voice of Hope Lubbock Rape Crisis Center, 806-763-7273, [voiceofhopelubbock.org](http://voiceofhopelubbock.org) (24-hour hotline that provides support for survivors of sexual violence.) The Risk, Intervention, Safety and Education (RISE) Office, 806-742-2110, <https://www.depts.ttu.edu/rise/> (Provides a range of resources and support options focused on prevention education and student wellness.) Texas Tech Police Department, 806-742-3931, <http://www.depts.ttu.edu/ttpd/> (To report criminal activity that occurs on or near Texas Tech campus.)

#### CIVILITY IN THE CLASSROOM STATEMENT:

Texas Tech University is a community of faculty, students, and staff that enjoys an expectation of cooperation, professionalism, and civility during the conduct of all forms of university business, including the conduct of student–student and student–faculty interactions in and out of the classroom. Further, the classroom is a setting in which an exchange of ideas and creative thinking should be encouraged and where intellectual growth and development are fostered. Students who disrupt this classroom mission by rude, sarcastic, threatening, abusive or obscene language and/or behavior will be subject to appropriate sanctions according to university policy. Likewise, faculty members are expected to maintain the highest standards of professionalism in all interactions with all constituents of the university ([www.depts.ttu.edu/ethics/matadorchallenge/ethicalprinciples.php](http://www.depts.ttu.edu/ethics/matadorchallenge/ethicalprinciples.php)).

#### LGBTQIA SUPPORT STATEMENT\*:

I identify as an ally to the lesbian, gay, bisexual, transgender, queer, intersex, and asexual (LGBTQIA) community, and I am available to listen and support you in an affirming manner. I can assist in connecting you with resources on campus to address problems you may face pertaining to sexual orientation and/or gender identity that could interfere with your success at Texas Tech. Please note that additional resources are available through the Office of LGBTQIA within the Center for Campus Life, Student Union Building

Room 201, [www.lgbtqia.ttu.edu](http://www.lgbtqia.ttu.edu), 806.742.5433.”

\*If you prefer to list campus resources rather than a statement about ally status, you might include the following among other campus resources you wish to share:

Office of LGBTQIA, Student Union Building Room 201, [www.lgbtqia.ttu.edu](http://www.lgbtqia.ttu.edu), 806.742.5433

Within the Center for Campus Life, the Office serves the Texas Tech community through facilitation and leadership of programming and advocacy efforts. This work is aimed at strengthening the lesbian, gay, bisexual, transgender, queer, intersex, and asexual (LGBTQIA) community and sustaining an inclusive campus that welcomes people of all sexual orientations, gender identities, and gender expressions.