Syllabus

Architectural Visualization since 1900

Reinhold Martin

Teaching Assistants:
Hollyamber Kennedy, Peter Minosh, Daniel Talesnik, Norihiko Tsuneishi

A4326 (or A4024, Part I)
Monday 11am-1pm
Wood Auditorium, Avery Hall
Spring 2014

As a rule, architects do not build. They draw, write, annotate, diagram, model, map, sketch, photograph, animate, and otherwise visualize objects, spaces, territories, and processes; they make visual and verbal presentations; they compile visual and written analyses and reports; and they issue visual and written instructions.

This lecture course surveys these activities across the twentieth century through selected episodes in the history of architectural visualization in a variety of geographic and cultural contexts. The approach is thematic and follows a loose chronology built around concepts, problems, and practices associated with international modernism and its aftermath. In and through these, we will observe architectural knowledge being constructed, drawings and buildings interacting, and ideas, techniques, and imagery circulating.

Each lecture considers a specific issue within the history of architecture, technology, and visualization since around 1900. A limited number of drawings, models, photographs, films, and other visual artifacts are analyzed in depth. Some readings situate these examples historically, while others offer conceptual orientation. Though formally a history and theory lecture, the course brings together concerns shared among different aspects of the GSAPP architecture curriculum, including visual studies, the technology sequence, and the design studios.

The course also introduces students to the material infrastructures and interfaces through which architectural conventions move across national, cultural, and geographic boundaries. The history of architectural visualization in the twentieth century is also a history of globalization. It entails translation, standardization, reproduction, transformation, location, and circulation. In this context, the term “modern architecture” is redundant. Since, what the century’s dominant discourse calls “architecture” is by definition a modern phenomenon that has codified visually a variety of building cultures and practices.

Material covered in the lectures and readings includes diagrams, travel sketches, orthographic and axonometric projections, perspectives, representations of movement, construction drawings, maps, models, architectural and aerial photographs, renderings, and digital documents, from 1900 to the present.

Course Requirements

Students are required to attend all classes, complete the required readings, and complete the class assignments.

ALL STUDENTS

Each week a one-page reading response (250-300 words) will be due by Sunday at midnight on Courseworks. The response should address all of the required texts, unless you explicitly indicate otherwise. Each response should have a title, to give a sense of the argument you are making. Please briefly read through your section classmates’ posts before class on Monday.

FOR THOSE ENROLLED IN A4024 (Architectural Drawing & Representation II):

Students are expected to complete ONLY Required Readings. Additional materials listed as Further Reading and as Further Reference are
suggested for those wishing to read more deeply in a given subject.

You will receive comments from your instructor every fourth session. As there is no final paper or exam required for this course, attendance, participation in seminar discussion and weekly reading responses will determine your overall grade.

FOR THOSE ENROLLED IN A4326 (Architectural Visualization since 1900):

Students are expected to complete BOTH Required Readings AND Further Readings. Additional materials listed as Further Reference are suggested for those wishing to read more deeply in a given subject, or those writing research papers.

In addition to the reading responses, there will be two assignments during the semester: A 500-word (max.) paper abstract and research bibliography and a final research paper of 15 pages (max.), plus illustrations.

All papers should be 12-point double-spaced and follow bibliographic, footnoting, and other guidelines outlined in the Chicago Manual of Style (available as an E-Books through CLIO).

For A4236 (Architectural Visualization since 1900) only: One required book, Erwin Panofsky, *Perspective as Symbolic Form* [1927], is available purchase in Bookculture (West 112th St. between Broadway and Amsterdam Ave.).

All required and further readings are available on Courseworks or through e-journals on different online databases as indicated (JSTOR, MUSE, WILEY ONLINE, etc.). Most books are available in Avery Library. E-Books are listed as such and may be accessed through CLIO. E-journals may be accessed through the Columbia University Libraries “Databases” at: http://library.columbia.edu/

Grading

Grades for the class will be determined as follows:

FOR THOSE ENROLLED IN A4024 (Architectural Drawing & Representation II)

This portion of the class will constitute 50% of your total grade, as follows:

Reading responses 35%
Class participation 15%

FOR THOSE ENROLLED IN A4326 (Architectural Visualization since 1900)

Reading responses 20%
Class participation 20%
Final paper 60%

Students should adhere to standard guidelines regarding academic honesty, such as those described in the GSAS Statement on Academic Honesty, available at:


Required Text (A4236 Architectural Visualization since 1900, only):


[SHOULD BE READ BY WEEK 5]
Logistics

The first half of the class each week will be a lecture, from 11:00-11:45 in Wood Auditorium. Following that, the class will divide into discussion sections from 12:00-1:00 in the assigned classrooms. Students enrolled in Architectural Drawing 2 will be assigned sections run by the Teaching Assistants, and those enrolled in Architectural Visualization since 1900 will attend the section run by Prof. Martin.

Schedule and Readings

Week 1    Media: From Representation to Communication
27 January 2014

Required Reading


Further Reading


Further Reference


University Press, 1994)


**Week 2 Translation: The Movement of Information**
3 February 2014

**Required Reading**


**Further Reading**


**Further Reference**


**Week 3**  
**The World Picture: Numbers and Standards**

10 February 2014

**Required Reading**


**Further Reading**


**Further Reference**


Ernst Neufert, *Bau-Entwurfsslehre* (Berlin: Bauwelt Verlag, 1936)


*Kenchiku Shiryo Shioshu (Architectural Design Data Collection)* (Tokyo: Japan Society of Architecture, 1941)


**Week 4**  
**Objects and Objectivity**

17 February 2014

**Required Reading**


[TAYLOR & FRANCIS ONLINE](https://courseworks.columbia.edu/portal/tool/d41ba4d1-2348-46e7-9d46-db7ca1e27ed3/printFriendly)
Further Reading


Further Reference


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**Week 5**

**Dynamism: Space and Time**

24 February 2014

Required Reading


Further Reading


Further Reference


Gyorgy Kepes, *Language of Vision* (Chicago: Paul Theobald, 1944) EBOOK


László Moholy-Nagy, *Vision in Motion* (Chicago: Paul Theobald, 1947)


Week 6     Horizon as Symbolic Form: Plans and Grids

3 March 2014

Required Reading


Further Reading


78.


Further Reference


Bruce Brooks Pfeiffer, *Frank Lloyd Wright Drawings: Masterworks from the Frank Lloyd Wright Archives* (New York: Abrams, 1990)


Week 7          Systems: Pattern Seeing

10 March 2014

Required Reading


Further Reading


Further Reference


György Kepes, *The Nature of Art and Motion* (New York: George Braziller, 1965)


**Spring Break (no class)**

17 March 2014

**Week 8**

**From Above, From Below: Contested Territories**

24 March 2014

**Required Reading**


**Further Reading**


**Further Reference**


Catherine de Zegher and Mark Wigley, eds. The Activist Drawing: Retracing Situationist Architectures from Constant’s New Babylon to Beyond (Cambridge: MIT Press, 2001)

Week 9          Risk: The International Division of Labor
31 March 2014

Required Reading

Further Reading

Further Reference


Week 10        Black and White and Color: Form/Figure/Context
7 April 2014

Required Reading
Further Reading


Further Reference


Week 11        Computerization Takes Command

14 April 2014

Required Reading


Further Reading


Further Reference


Peter Eisenman, Diagram Diaries (New York: Universe, 1999)


Timothy Lenoir, “All but War Is Simulation: The Military Entertainment Complex,” Configurations 8, n. 3 (Fall 2000): 238-335. MUSE (online)


Week 12 Visualizing Change: The Line of the Anthropocene

21 April 2014

Required Reading


http://www.youtube.com/watch?v=RgqtrlixYR4


http://www.youtube.com/watch?v=ABZjlfhN0EQ

Further Reading


http://rsta.royalsocietypublishing.org/content/369/1938/842.full.pdf+html?sid=0d594635-9044-48b8-a33b-927b24cee52

https://courseworks.columbia.edu/portal/tool/d41ba4d1-2348-46e7-9d46-db7ca1e27ed3/printFriendly
Further Reference


Albert Ferré and Tomokoko Sakamoto eds., From Control to Design: Parametric/Algorothmic Architecture (Barcelona: Actar, 2008)


Albert Ferré and Tomokoko Sakamoto eds., From Control to Design: Parametric/Algorothmic Architecture (Barcelona: Actar, 2008)


Albena Yaneva, Made by the Office for Metropolitan Architecture: An Ethnography of Design (Rotterdam: 010, 2009)

Final papers due (for A4326)

9 May (by 5pm, PDF by Dropbox on Courseworks)