

CBM003 ADD/CHANGE FORM

Undergraduate Committee
 New Course Course Change
 Core Category: Creat. Arts Effective Fall 2014

or

Graduate/Professional Studies Committee
 New Course Course Change
 Effective Fall 2014

1. Department: Architecture College: ARCH

APPROVED OCT 02 2013

2. Faculty Contact Person: Dr. Nora Laos Telephone: 713.743.2402 Email: nlaos@uh.edu

M.M.

3. Course Information on New/Revised course:

- Instructional Area / Course Number (*see CBM003 instructions) / Long Course Title:
ARCH / 2350 / Survey of Architectural History I
- Instructional Area / Course Number / Short Course Title (30 characters max.)
ARCH / 2350 / Survey of Architectural Hist I
- SCH: 3.00 Level: SO CIP Code: 04.0801.00 06 Lect Hrs: 2 Lab Hrs: 3
- Term(s) Course is Offered (*see CBM003 instructions about selection): Fall

RECEIVED SEP -6 2013

4. Justification for adding/changing course: To meet core curriculum requirements

5. Was the proposed/revised course previously offered as a special topics course? Yes No

If Yes, please complete:

- Instructional Area / Course Number / Long Course Title:
ARCH / 2350 / Survey of Architectural History I
- Course ID: 011297 Effective Date (currently active row): 08262013

6. Authorized Degree Program(s): B.S., Industrial Design; B.Arch., Architecture; B.S., Interior Architecture

- Does this course affect major/minor requirements in the College/Department? Yes No
- Does this course affect major/minor requirements in other Colleges/Departments? Yes No
- Can the course be repeated for credit? Yes No (if yes, include in course description)

7. Grade Option: Letter (A, B, C ...) Instruction Type: lecture laboratory (Note: Lect/Lab info. must match item 3, above. *See CBM003 instructions.)

8. If this form involves a change to an existing course, please obtain the following information from the course inventory: Instructional Area / Course Number / Long Course Title

- ARCH / 2350 / Survey of Architectural History I
- Course ID: 11297 Effective Date (currently active row): 08262013

9. Proposed Catalog Description: (If there are no prerequisites, type in "none".)

Cr: 3. (3-0). Prerequisites: credit for or concurrent enrollment in ENGL 1304. Description (30 words max.): History of eastern and western architecture and art from ancient Egypt through 1750 with attention to cultural, philosophical and technical influences, ↓ | ✓

10. Dean's Signature: _____

Date: 9-6-13

Print/Type Name: Patricia Belton Oliver

REQUEST FOR COURSES IN THE CORE CURRICULUM

Originating Department or College: Architecture

Person Making Request: Nora Laos / [Signature] Telephone: 3-2402

Email: nlaos@uh.edu

Dean's Signature: [Signature]

Date: September 1, 2013

Course Number and Title: 2350: Survey of Architectural History I

Please attach in separate documents:

Completed CBM003 Add/Change Form with Catalog Description

Syllabus

List the student learning outcomes for the course (Statements of what students will know and be able to do as a result of taking this course. See appended hints for constructing these statements):

Students will understand how and why history is relevant to the architect, how architects have borrowed from the past and why they have done so, and how this brings meaning to architectural production. They will appreciate the relationship between form and function and between form and meaning. They will understand how the psychology of space is addressed, and why we are moved by certain spaces, volumes or forms, but not by others. They will learn how to analyze architecture and how to *critically* write about the subject.

Component Area for which the course is being proposed (check one):

***Note:** If you check the Component Area Option, you would need to also check a Foundational Component Area.

Communication

American History

Mathematics

Government/Political

Science

Language, Philosophy, & Culture

Social & Behavioral Science

Creative Arts

Component Area Option

Life & Physical Sciences

Competency areas addressed by the course (refer to appended chart for competencies that are required and optional in each component area):

Critical Thinking

Teamwork

Communication Skills

Social Responsibility

Empirical & Quantitative Skills

Personal Responsibility

Because we will be assessing student learning outcomes across multiple core courses, assessments assigned in your course must include assessments of the core competencies. For each competency checked above, indicated the specific course assignment(s) which, when completed by students, will provide evidence of the competency. Provide detailed information, such as copies of the paper or project assignment, copies of individual test items, etc. A single assignment may be used to provide data for multiple competencies.

Critical Thinking:

Students learn that architecture reflects the society and civilization within which it was made, that architecture is not simply about aesthetics, materiality, and structural prowess. The course teaches them to assess the value of building through the lens of the culture that produced it.

Communication Skills:

Students are required to read excerpts of books or scholarly articles that address topics discussed in the course in greater depth. In the classroom they must then communicate the author's argument and defense in clear, concise written prose. Likewise, for exams students must answer with short essays questions that compare architecture of different cultures or different periods, or the work of different architects. Thus the course emphasizes written communication skills.

Empirical & Quantitative Skills:

Click here to enter text.

Teamwork:

In addition to lectures, students meet once per week in smaller groups with an Assistant in Instruction for discussion and expansion of the material covered; they are able to ask and answer each others' questions, share ideas about the course content, and consider ways that the history of architecture and urbanism might affect them.

Social Responsibility:

Students learn that the creation of appropriate architecture is as much a social endeavor as a design task. Ultimately architects are responsible for the way that people live and occupy space, and the way that communities develop and change. However, architecture itself changes in response to social change; nothing is built in a vacuum.

Personal Responsibility:

Click here to enter text.

Will the syllabus vary across multiple section of the course? Yes No

If yes, list the assignments that will be constant across sections:

Three hour exams with building identification followed by essay responses to specific questions.

Two writing assignments that critically address reading comprehension and are based on selected book excerpts or scholarly articles.

Inclusion in the core is contingent upon the course being offered and taught at least once every other academic year. Courses will be reviewed for renewal every 5 years.

The department understands that instructors will be expected to provide student work and to participate in university-wide assessments of student work. This could include, but may not be limited to, designing instruments such as rubrics, and scoring work by students in this or other courses. In addition, instructors of core courses may be asked to include brief assessment activities in their course.

Dept. Signature: (FOR N

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**University of Houston
Gerald D. Hines College of Architecture**

**ARCH 2350 AND 6340
SURVEY OF ARCHITECTURAL HISTORY I
Cultures of the World from Prehistory through 1750**

Fall, 2013: Lectures on Mondays and Wednesdays, 10:00-10:50; Seminar/Discussion (“lab”) sections on Thursdays or Fridays

Instructor: Nora Laos (nlaos@uh.edu) tel: 713-743-2402
Office Hours: By appointment, Room 375 College of Architecture

Teaching Assistants: Brandon Berry (blberry@uh.edu)
Tiger Lyon (tigermfb9@yahoo.com)
Andrew O’Toole (andrew.otoole@gmail.com)

This course is an investigation of the various eastern and western architectural traditions from prehistoric origins, through Egypt, India, China and Japan to ancient Greece and Rome, concluding with the significant monuments of Islamic and Christian cultures, and the Renaissance and Baroque periods. We will primarily examine the architectural character of individual buildings with an effort to place them in their cultural and urban contexts, but we will also analyze general urban planning principles of different civilizations as well as specific architectural and sculptural details.

Architecture is a multi-faceted art and a science, and thus we will endeavor to study the aesthetic quality of buildings, their functional objectives as well as their structural systems, materials and methods of construction. Moreover, since architecture reflects the society and civilization within which it was produced, we must always consider the cultural and intellectual context and chronological time frame of a monument, in order to fully appreciate its significance in the history of the building tradition.

Course Objectives and Expected Learning Outcomes:

- To understand how and why history is relevant to the architect. What can it teach us?
- To understand how architects have borrowed from the past and why they have done so, and to assess how this brings meaning to architectural production.
- To understand the relationship between form and function and between form and meaning.
- To understand how the psychology of space is addressed: why we are moved by certain spaces, volumes or forms, but not by others.
- To learn how to analyze architecture and how to *critically* write about the subject.

RECOMMENDED TEXTBOOKS:

- Ching, Francis D.K., M.J. Jarzombek and V. Prakash, *A Global History of Architecture*, 2nd ed., New Jersey: John Wiley & Sons, 2011.
- Moffett, Marian, Michael Fazio and Lawrence Wodehouse, *Buildings Across Time, an Introduction to World Architecture*, London: Laurence King Publishing, 2004.
- Trachtenberg, Marvin and Isabelle Hyman, *Architecture from Prehistory to Postmodernism: The Western Tradition*, 2nd ed., New York and Englewood Cliffs, 2002.
- Ingersoll, Richard and Spiro Kostof, *World Architecture: A Cross-Cultural History*, New York and Oxford, 2012.**
- Nuttgens, Patrick, *The Story of Architecture*, 2nd ed., London: Phaidon Press, 1997.
- Sutton, Ian, *Western Architecture: From Ancient Greece to the Present*, London: Thames and Hudson, 1999.

Relevant readings from these texts are indicated in the detailed course syllabus.

A glossary of architectural terminology is available at the end of Ingersoll's book (pp. 957-964), Ching's book (pp. 799-807), Moffett's book (pp. 568-571), and Trachtenberg's book (pp. 583-589). Bibliographies are organized chronologically at the end of Ching (pp.809-818), Moffett (pp. 572-575), Trachtenberg (pp. 591-601), and at the end of each section of Ingersoll's book.

EXAMS: There will be three hour-exams on the following dates:

- First Hour-Exam: Monday, September 30, 10:00 am
Second Hour-Exam: Monday, November 4, 10:00 am
Third Hour-Exam: Monday, December 16, **11:00 am**

ASSIGNMENTS:

There will be two in-class writing assignments during the following Thursday/Friday discussion sections:
October 24/25
November 21/22

These writing assignments will be linked to specific assigned readings and are intended to address reading comprehension skills. The readings will be available at least one week in advance and you will be required, in your discussion section, to respond to specific questions about the content and the author's arguments. Your responses will be written during your discussion section in blank Blue Books; all responses must be handed in at the end of the class.

IMAGES:

Powerpoint images shown in lectures will be accessible on Blackboard Learn, organized by lecture. Each student registered for the course will also be registered on Blackboard Learn.

GRADING for students enrolled in ARCH 2350:

First Hour-Exam	20%
Second Hour-Exam	20%
Third Hour-Exam	20%
Writing Assignments x 2 @ 15% each	30%
Attendance, professionalism and class participation in discussion sections	10%

GRADING for students enrolled in ARCH 6340:

First Hour Exam	20%
Second Hour Exam	20%
Third Hour Exam	20%
Essays x 2 @ 15% each	30%
Short paper (1000 words), topic, due date tba	10%

GENERAL INFORMATION

Prerequisite for students enrolled in ARCH 2350: English 1304, 1310 or its equivalent, completed or being taken concurrently.

The content of the discussion sections ("labs") will include discussion and clarification of the weekly lectures, specifically with the intent of understanding how architectural history can be relevant to the present, especially to contemporary architectural design. Attendance will be taken at each session and students are expected to participate in discussions.

In order to perform well in this course, you **must regularly attend both** the lectures and the discussion sections. The material covered on the hour exams derives directly from the weekly lectures. You may audio-record the lectures if you would like to.

Make-up exams and make-up essays will be given only with a legitimate doctor's note, police report or court order. There will be no make-up for the third hour exam.

Plagiarism, defined as "the appropriation or imitation of the language, ideas, or thoughts of another author, and representation of them as one's original work," will **NOT** be tolerated. Penalties may include a failing grade in the course, suspension, or expulsion from the university.

The last day to drop the course with a grade of 'W' is Friday, November 1, 5:00pm. The university will NOT allow any withdrawals after this date.

The University of Houston System complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for students with a disability. In accordance with Section 504 and ADA guidelines, each University within the System strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them. If you believe that you have a disability requiring an academic adjustments/auxiliary aid, please contact the student disability services center at 713-743-5400.

Schedule of Lectures

Monday, August 26	Introduction and overview of the course
Wednesday, August 28	Prehistoric Architecture–Late New Stone Age
Monday, September 2	NO CLASS: Labor Day Holiday
Wednesday, September 4	Egypt: Old and New Kingdoms
Monday, September 9	Pre-Columbian Meso-America
Wednesday, September 11	Buddhist and Hindu Sanctuaries in India and Cambodia
Monday, September 16	Architecture and Culture of China
Wednesday, September 18	Architecture and Culture of Japan
Monday, September 23	Greece: Site Planning: the Acropolis and the Agora
Wednesday, September 25	Greece: the Architecture of Temples

Monday, September 30

First Hour-Exam

Wednesday, October 2	Introduction & The Roman Civic Presence I: Forum, Basilica
Monday, October 7	The Roman Civic Presence II: Market, Theater and Amphitheater
Wednesday, October 9	The Roman Civic Presence III: Gate, Arch, Aqueduct
Monday, October 14	The Roman Religious Presence: Temple and Tomb
Wednesday, October 16	The Roman Residence: Villa and House
Monday, October 21	Early Christian and Byzantine Architecture
Wednesday, October 23	Architecture of the Islamic World: the Mosque
Monday, October 28	Romanesque Architecture: Pilgrimage Churches and Cistercian Monasteries
Wednesday, October 30	Gothic Architecture: Formal and Structural Characteristics

Monday, November 4

Second Hour-Exam

Wednesday, November 6	Introduction to the Renaissance & The Work of Brunelleschi
Monday, November 11	The Work of Alberti and Bramante
Wednesday, November 13	The Work of Michelangelo and Palladio
Monday, November 18	Renaissance France: the Architecture of the <i>Château</i>
Wednesday, November 20	Baroque Italy: the work of Bernini and Borromini
Monday, November 25	Baroque and Rococo in Austria and Germany
Wednesday, November 27	NO CLASS: Thanksgiving Holiday
Monday, December 2	France in the 17 th Century & 16 th and 17 th -Century Landscape Design
Wednesday, December 4	England in the 17 th Century

Monday, December 16

Third Hour-Exam 11:00 am

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY I

Prehistoric Architecture - Late New Stone Age (Neolithic)
3000-1000 BCE

Suggested Reading: **Ingersoll, pp. 23-32**; Trachtenberg, pp. 57-61; Nuttgens, pp. 10-15; Ching, pp. 23-24, 47-51; Moffett, pp. 9-14.

France, Carnac (in the region of Brittany) and England, Avebury, menhirs (megaliths [literally, "large stones"] or monolithic upright stone markers), dolmens (two menhirs supporting a horizontal block, usually used for marking tombs (substructure of a barrow), post and lintel structural system), ca. 2000-1500 BCE.

England, Stonehenge (near Salisbury), composed stone group based on a circular plan (henge monument), ca. 2750-1500 BCE, post and lintel structural system, mortise and tenon joints; optical refinements: tapered pillars, inclining lintels.

France, Gordes (in the region of Provence), The Bories, reconstructed prehistoric village; domestic architecture built up with relatively thin stone slabs, use of corbeling technique, ca. 2000 BCE.

Malta, Temples, 2800-2200 BCE, sanctuary based on triple and double-apsed plans, trilith [literally "three stones"] entry portals, (combination of corbeled construction with post and lintel construction).

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY I

Egypt: Old and New Kingdoms

Suggested Reading: **Ingersoll, pp. 48-60, 86-97**; Trachtenberg, pp. 62-71; Nuttgens, pp. 28-41; Ching, pp. 39-45, 64-73; Moffett, pp. 23-37.

Important Historical Information:

ca. 3200-2160 BCE Old Kingdom
ca. 1570-1100 BCE New Kingdom

Old Kingdom

Saqqara, Mortuary Complex of King Zoser, ca. 2650 BCE
mastaba ("bench" in Arabic; bench-like quadrangular form); architect Imhotep.

Giza, Complex of Great Pyramids, 2580-2500 BCE
Cheops (Khufu), Chepren (Khafa) and Mycerinus (Menkure)
Predetermined architectural procession: river, Valley Temple, causeway,
Mortuary Temple, tomb.

New Kingdom

Deir el Bahari, Mortuary Temple of Queen Hatshepsut, ca. 1500 BCE
architect: Senmut; dedicated to the sun god Amon-Ra; Proto Doric colonnades.

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY I

Pre-Columbian Meso-America

Suggested Reading: **Ingersoll, pp. 183-190, 251-263**; Nuttgens, ch. 6; Ching, pp. 225-27, 432-34; Moffett, pp. 283-293.

City of Teotihuacan, 150-650 CE, (when it was burned), located in the Valley of Mexico, ca 40 miles northeast of Mexico City: Pyramid of the Moon—*talud/tablero* profile; open plaza in front of Pyramid of the Moon; Pyramid of the Sun; Citadel with Temple of the Feathered Serpent; open compound: probably marketplace and administrative center; "Street of the Dead."

City of Chichen Itza, (Yucatan Peninsula), ca. 750-1200 CE: open plaza cont. pyramid, known as Castillo, Temple of Warriors to east, surrounded by rows of columns that create second open plaza, ritual Ball Court opposite, to west. Very north end of site occupied by sink well (place of sacrifice); city extends also toward south, w/ palaces and other temples ("Red House") & a round astronomical observatory (Caracol or "snail").

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY I

Buddhist and Hindu Sanctuaries in India and Cambodia

Suggested Reading: **Ingersoll**, pp. 141-147, 216-225, 265-279; Ching, pp. 30-31, 176-81, 214-15, 235-37, 244-45, 281, 594-95, 318-20; Moffett, pp. 67-85.

Mohenjo-Daro (city in Indus Valley), today in Pakistan, ca 2500 BCE

Buddhist Sanctuaries (Buddha [565-480 BCE])

Sanchi, "Great" Stupa, 1st. century CE
stupa == "relic mound" with four gates (*torana*)

Ajanta, Chaitya Hall, 250 CE
chaitya == assembly hall or cave shrine, rock-cut sanctuaries

Hindu Sanctuaries in India

Mahabalipuram, (Mamallapuram), Shore Temples, ca 700 CE
two shrines dedicated to Shiva, one to Vishnu
vimana == terraced tower above each shrine

Madurai, Great Temple (Sri Meenakshi Temple), 1623 CE
gopuram == terraced tower above a threshold (over a portal)

Hindu Sanctuaries in Cambodia

Angkor Wat, temple of the capital, 1112-52 CE

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY I

Architecture and Culture of China

Suggested Reading: **Ingersoll, pp. 175-182, 240-250, 424-436**; Nuttgens, ch.5; Ching, pp. 185, 286, 298-99; Moffett, pp. 86-99.

Great Wall(s), first begun 221-206 BCE; maintained and upgraded primarily during the Ming Dynasty (1368-1644 CE).

Guangdong (modern city with older districts); precedents: clay models buried in tombs, primarily from Han Dynasty burials (1st-2nd cents. CE); vernacular example: Hakka Housing.

Chinese beam frame construction:

Shanxi Province, Foguang Temple, 857 CE: wood frame construction, bracket clusters (*tou-kung*), concave roof profile.

Various garden pavilions.

Feng-Shui: "If the heavenly influences are auspicious, the geographical features are beneficial, and the actions of man are in harmony with the social, cultural and political situations, then the *feng shui* is auspicious."

Three religious philosophies:

Buddhism [imported from India; founded by Buddha (565-480 BCE)].

Confucianism: based on teachings of Confucius (551-479 BCE): based on moral conduct (*jen*) and combination of etiquette and ritual traditions (*li*).

Taoism: based on *Tao te Ching* (The Book of the Virtuous Way), written by Lao-tzu, 6th cent. BCE.

Songyue Pagoda, Henan Province, 520 CE

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY I

Architecture and Culture of Japan

Suggested Reading: **Ingersoll, pp. 521-533**; Nuttgens, ch.5; Ching, pp. 287-92, 486-93; Moffett, pp. 99-109.

Ise, Shinto Shrine, (Naiku), founded in 3rd cent. CE: dedicated to the Sun Goddess; *torii*, *katsuogi*, *chigi*, *Wabi-Sabi*.

Nara, Horyuji, Buddhist Shrine and Monastery, 7th cent. CE: *hosho*.

Nagano, Matsumoto Castle, 16th cent CE. and Kobe (Hyogo), Himaji Castle, 16th cent. CE; *shogun* garrison castles.

Residential Architecture

Lashed frame structures: indigenous (vernacular) development.

Two types develop from the lashed frame, and eventually merge together:

- 1.) *minka*: based on lashed frame; rectangle, modular grid, interchangeable use of space; *shoji*.
- 2.) individual pavilions for separate functions, joined by corridors.

Teahouses (*Sukiya*)—influenced by Zen Buddhism

Kyoto Province, Taian Teahouse, 16th cent. CE: tea-room with *tokonoma*, anteroom, entrance for tea master, garden path, exterior portico.

Sukiya Style Residential Architecture

Kyoto, Katsura Imperial Villa, 1625 CE.

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY, I

Greece: Site Planning: The Acropolis and the Agora

Suggested Reading: **Ingersoll, pp. 117-141**; Trachtenberg, pp. 91-115; Nuttgens, pp. 86-101; Sutton, pp. 10-17; Ching, pp. 121-24, 132-34; Moffett, pp. 53-56, 60-62.

Important historical information:

Dorians and Ionians: two of the tribes that settled in Aegean, beginning in 1100 BCE. Greek culture based on polis (city-state) and anthropomorphic polytheism (the worship of many gods who were divine but had human-like characteristics and form).

Athens, Agora, 5th cent. BCE; open marketplace and civic center of the city; surrounded by several different building types arranged "casually" around the open square: Stoa of Zeus (stoa: long and narrow structure, usually open to one side with a colonnade, used for many civic purposes), New Bouleterion (bouleterion: council house), Temple of Hephaestus, Tholos or Skias (tholos: round temple type, here adapted for use as a dining room for the heads of the city council), South Stoa, Stoa of Attalus (added in the 2nd cent. BCE); the Panathenaic Way cuts across the Agora at a diagonal.

Panathenaic Way: ceremonial path from Piraeus (the port city of Athens) through Athens up to the Acropolis; used for an annual procession in honor of Athena, the goddess who protected the city.

Athens, Acropolis; the hill was inhabited as early as 3000 BCE; in the 13th century BCE the hilltop was occupied by a Mycenaean citadel; transformed into an Archaic cemetery perhaps as early as the 8th century BCE; destroyed by the Persians in 480 BCE; major rebuilding carried out under Pericles after 454 BCE.

Main buildings:

Parthenon (see syllabus, "Greece: the Architecture of Temples")

Propylea: built 437-432 BCE; architect Mnesicles; ceremonial entrance/gateway to the Acropolis.

Erechtheum: built 421-405 BCE; located on the most sacred site of the Acropolis; incorporated several shrines; highly irregular plan: north porch, Ionic; south porch, "Porch of the Maidens," caryatids; location of miracle of Athena.

Temple of Athena Nike: designed and begun in 449 BCE by the architect Callicrates; dismantled by the Turks after 1676; reconstructed in 1835, again in 1936-40; presently under reconstruction and restoration again.

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY I

Greece: The Architecture of Temples

Suggested Reading: **Ingersoll, pp. 117-141**; Trachtenberg, pp. 91-115; Nuttgens, pp. 86-101; Sutton, pp. 10-17; Ching, pp. 128-31, 142; Moffett, pp. 47-53.

The Three Orders:

Doric, Ionic and Corinthian; composed of several different components: base, shaft—sometimes monolithic, sometimes constructed of drums (sometimes fluted), capital, entablature—several parts: architrave, frieze and cornice.

The Greek Temple:

Raised platform, elongated rectangular section, enclosed by walls, sometimes divided into several rooms: naos—main room containing cult statue, sometimes porches on either end; orders usually encircle entire platform at its periphery (“peristyle”).

Paestum (Italy), Temple of Hera I (so-called "Basilica"), ca. 530 BCE.
(an example of an Archaic temple)

Athens, Parthenon, 447-432 BCE; architects: Ictinus and Callicrates; sculptor Phidias; temple dedicated to Athena Parthenos (Athena, the virgin, goddess of wisdom), commissioned by the statesman Pericles, located on the Acropolis; 8 x 17 columns, Doric order; sculpture: pediments depict the birth of Athena and the contest between Athena and Poseidon; frieze around upper wall of naos depicts the Panathenaic Procession; optical refinements: column spacing, columns lean from vertical, columns bulge (entasis), platform and entablature are bowed.
(an example of a Classical temple)

Didyma (near Miletus), Turkey, Temple of Apollo, architects: Daphnis of Miletus and Paeonius of Ephesos, begun ca. 300 BCE; never completed; 10 x 21 columns, double peristyle, Ionic Order.
(an example of a Hellenistic temple)

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY I

Introduction to Rome and Roman Culture
The Roman Civic Presence I: Forum, Basilica

Suggested Reading: **Ingersoll, pp. 149-174**; Trachtenberg, pp. 120-25, 142-49; Kostof, pp. 191-215 (ch. 9); Sutton, pp. 17-23; Ching, pp. 194-95; Moffett, pp. 113-122, 126-131.

Important historical information:

7th century BCE-509 BCE Roman Kingdom
509-27 BCE Roman Republic
27 BCE-476 CE Roman Empire

Two fortification walls (the Servian Wall and the Aurelian Wall)

Rome, Basilica of Trajan, 100 CE (part of the Forum of Trajan); trabeated (post and beam) structural system, nave, aisles, clearstory, apse.

Rome, Basilica of Maxentius and Constantine, 307-312 CE; arcuated (pier and arch) structural system with trabeated decoration; built originally by Emperor Maxentius and remodeled by Emperor Constantine; housed the colossal statue of Constantine.

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY I

The Roman Civic Presence II: Market, Theater, Amphitheater

Suggested Reading: **Ingersoll**, pp. 149-174; Trachtenberg, pp.127-29; Ching, p. 198.

Market

Rome, Markets of Trajan, 100 CE (constructed against a hill, to the east of the Forum of Trajan); *macellum, exedra, taberna*.

Theater

Lepcis Magna, Libya, Theater, 1st cent. CE; *cavea* (seating); orchestra, *scaenae frons* (“front of stageset”).

Rome, Theater of Marcellus, 1st cent. BCE.

Amphitheater

Rome, Colosseum, (Flavian Amphitheater), 80 CE.

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY I

The Roman Civic Presence III: Gate, Arch, Aqueduct

Suggested Reading: **Ingersoll**, pp. 149-174; Trachtenberg, pp. 125-27; Ching, p. 204.

City Gate

Turin, Italy, ca. 16 BCE.

Trier, Germany, "Porta Nigra," late 3rd cent. CE; pier and arch structural system (arcuated) with an overlaid post and lintel decorative system (trabeated).

Triumphal Arch

Rome, Forum Romanum, Arch of Titus, 81 CE and Arch of Septimius Severus, 203 CE.

Pula, Istria (today Croatia), Arch of the Sergius Family, 29-27 BCE.

Orange, France, triumphal arch, ca. 21 CE.

[c.f. medieval church facades: Arles, St. Trophime; Caen, St. Etienne; Paris, Cathedral of Notre-Dame; Chartres, Cathedral]

Aqueduct

Aqueduct of Nîmes (France) and the Pont du Gard, ca. 50 CE; construction of the Pont du Gard (bridge): limestone ashlar, dry-laid (no mortar); projecting stones and voussoirs used to support wood centering (formwork); canal above top level of arches (ca. 150 ft. above top of the foundations); bridge is only one segment of the aqueduct, which winds 30 miles, drops ca. 45 ft.; regulating basin; castellum (water tower/reservoir).

Segovia, Spain, 1st cent. CE.

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ARCH 2350/6340
SURVEY OF ARCHITECTURAL HISTORY I

The Roman Religious Presence: Temple and Tomb

Suggested Reading: **Ingersoll, pp. 149-174**; Trachtenberg, pp. 134-42; 155-57; Nuttgens, pp. 102-115; Sutton, pp. 17-23; Ching, pp. 199-201; Moffett, pp. 123-126.

Temples

Rome, Forum Boarium, Temple of “Fortuna Virilis,” (actually dedicated to the god, Portunus), early 2nd cent. BCE; constructed of concrete, travertine, tufa and stucco; sources: Greek temple type and Etruscan temple type.

Rome, Forum Boarium, Temple of “Vesta,” (actually dedicated to Hercules Victor), 1st. cent. BCE; round tholos-type temple; source: Hellenistic temples, for example: Delphi, Tholos Temple, 4th cent. BCE.

Rome, Pantheon, 118-128 CE., commissioned by the emperor, Hadrian; 142.5 ft. in diameter.

Tombs

Rome, Mausoleum of Augustus, 28 BCE; cf. Etruscan tumulus tombs; 295 ft. in diameter.

Rome, Tomb of Caius Cestius, 1st cent. BCE; cf. Egyptian pyramids.

Rome, Tomb of the Baker, 1st. cent. BCE.

Catacombs

Rome, Catacombs, 2nd-5th centuries CE.; tufa, loculus, arcosolium, cubiculum, fresco painting.

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The Roman Residence: Villa and House

Suggested Reading: **Ingersoll, pp. 149-174**; Trachtenberg, pp. 151-55; Nuttgens, pp. 112-115; Ching, pp. 155, 202-03; Moffett, pp. 132-139.

Tivoli, Italy, Hadrian's Villa, 118-33 CE; component parts: Stoa Poikile, *triclinium* (dining hall), bath complexes, Canopus, Academy; residential section (Piazza d'Oro, "Maritime Theater"); pumpkin/umbrella dome; *ospitali* (guest rooms).

Pompeii, House of Pansa, 2nd cent. BCE; atrium, peristyle (*impluvium* = central pool), *cubiculae* (bedrooms), *alae* (niches for statues of house gods), *tablinum* (formal receiving room), vegetable garden; fresco decoration.

Pompeii, House of the Vetii, 1st cent. CE (before 79 CE); atrium, peristyle, *alae*, service quarters with their own atrium, kitchen with hearth.

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SURVEY OF ARCHITECTURAL HISTORY I

Early Christian Architecture

Suggested Reading: **Ingersoll, pp. 192-202**; Trachtenberg, pp. 161-65; Sutton, pp. 24-27; Ching, pp. 249-52; Moffett, pp. 141-159.

Syria, Dura Europos, Housechurch (*domus ecclesiae*), ca. 200, converted into a Christian church, ca. 230; rooms converted into a meeting hall and baptistry (font: baptismal pool, covered by an arcosolium).

313 : Edict of Milan—Christianity is declared one of the official religions of the Roman Empire by Constantine the Great; christogram (Chi and Rho superimposed).

Rome, Santa Sabina, 422-32; basilica: nave, aisles, apse, narthex, atrium, spoils (capitals and columns taken from other buildings and reused in the church).

Rome, Old St. Peter's, 320; constructed over 2nd-century shrine that marked the tomb of St. Peter; destroyed in 16th and 17th centuries, replaced by present church; plan is a combination of two basilicas: 5-aisled basilica acts as a funerary church; perpendicular to it is a second basilica (transept) which functioned as a martyrium.

Byzantine Architecture

Suggested Reading: **Ingersoll, pp. 203-215**; Trachtenberg, pp. 170-83; Sutton, pp. 27-35; Ching, pp. 268-75.

Constantinople, Hagia Sophia (Holy Wisdom), 532-537; arch's. Anthemius of Tralles and Isidorus of Miletus; first dome: pendentive dome, collapsed after an earthquake in 557; second dome, 20 ft. higher: dome on pendentives; spandrel, basket capitals, mosaics.

Cross-in-square (inscribed cross), most common Byzantine church plan.

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SURVEY OF ARCHITECTURAL HISTORY I

Architecture of the Islamic World: the Mosque

Suggested Reading: **Ingersoll**, pp. 227-239, 280-294, 437-449; Trachtenberg, pp. 213-21; Nuttgens, ch. 11; Ching, pp. 301-07 and 516-17; Moffett, pp. 169-184.

Mecca, Kaaba (“Black Stone”): holiest site for Muslims; all face Mecca in prayer; mosque later built around the Kaaba.

Mosques (prayer halls): Prayer five times per day, sets the daily routine of people in the Islamic world; orientation (must face Mecca); form (more wide than deep to encourage social equality); minaret: tower from where muezzin calls faithful to prayer; mihrab: usually a small apse in the qibla wall (the wall facing Mecca) to indicate direction of prayer; mimbar: pulpit used to deliver sermons to the congregation; prayer lines and rugs (used to arrange congregation into rows [like pews in a church]); ablution: ritual cleaning before prayer; madrasa: school attached to the mosque, housed in a separate building.

Examples:

Medina, Saudi Arabia, first mosque, built in courtyard of Mohammad’s house; 622-32.
Damascus, Syria, Great Mosque, ca. 706-715.
Cordoba, Spain, Great Mosque, 8th-10th cent.

Istanbul, Mosque of Suleyman the Magnificent, 1550, architect: Koca Mimar Sinan.

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SURVEY OF ARCHITECTURAL HISTORY I

Romanesque Architecture: Pilgrimage Churches and Cistercian Monasteries

Suggested Reading: **Ingersoll, pp. 295-313**; Trachtenberg, pp. 190-211, 255-59; Ching, pp. 369-71, 374, 418-19; Moffett, pp. 202-213, 221-224.

Pilgrimage Churches: four major routes from France to Santiago de Compostella (St. James of the Field) in north-western Spain.

Conques, Ste. Foi (St. Faith), begun in 1052, sculpture of Last Judgment in tympanum, ca. 1130; Latin cross plan, continuous aisles and pilgrims' galleries, chevet (apse, ambulatory, radiating chapels); bay system.

Cistercian Monasteries: homogeneous building type because the Cistercian Rule was enforced in all Cistercian monasteries in western Europe; Rule is based on the ideals of poverty and self-sufficiency.

Fontenay, France, Abbey, founded in 1119, church built 1139-47; cf. Irving Tx., Cistercian Abbey Church, arch. Gary Cunningham, 1990-92.

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SURVEY OF ARCHITECTURAL HISTORY I

Gothic Architecture in France: Formal and Structural Characteristics

Suggested Reading: **Ingersoll, pp. 339-359**; Trachtenberg, pp. 223-62; Nuttgens, pp. 158-175; Sutton, pp. 74-87; Ching, pp. 420-22; Moffett, pp. 229-245.

Gothic architecture extends technically from 1130 (the beginning of the construction of the abbey church of St. Denis) to ca. 1500-1600; characterized by pointed arches, ribbed vaults and flying buttresses.

Laon, Cathedral of Notre-Dame, begun in the 1150's with the south transept; west facade completed in 1215; four story nave elevation: arcade, gallery, triforium, clearstory.

Nave: 75 ft. high, 35 ft. wide.

Beauvais, Cathedral of St. Pierre (St. Peter), present church begun in 1225; never completed (Carolingian church, built in the 9th century, still survives); choir completed by 1272, but original quadripartite vaults collapsed in 1284; choir rebuilt with major modifications of the design (sexpartite vaults with additional piers) from 1284-1322; transept built 1500-48; tower over crossing with a wooden spire (502 ft high) built 1558-69, but it collapsed in 1573...and then they gave up.

Choir: 157.5 ft high, 48 ft wide.

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SURVEY OF ARCHITECTURAL HISTORY I

Introduction to the Renaissance
The Work of Brunelleschi

Suggested Reading: **Ingersoll, pp. 370-391, 450-475**; Trachtenberg, pp. 277-84; Nuttgens, pp. 176-185; Sutton, pp. 126-136; Ching, pp. 460-62; Moffett, pp. 295-301.

Leon Battista Alberti, *Ten Books on Architecture* , written in the 1430's.

Giorgio Vasari, *Lives of the most excellent Painters, Sculptors and Architects*, published in 1550.

Francesco Petrarca (1304-1374); called Petrarch in English; generally regarded as the first great humanist.

Filippo Brunelleschi (1377-1446)

Florence, Cathedral dome, 1420-36; first known double-shell dome in the history of western architecture.

Florence, Foundling Hospital (Ospedale degli Innocenti), 1419-24; loggia, piazza.

Florence, Santa Croce, Pazzi Chapel, 1442-70; umbrella vault (cloister vault), pendentive, barrel vault, coffering, rondel.

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SURVEY OF ARCHITECTURAL HISTORY I

The Work of Alberti and Bramante

Suggested Reading: **Ingersoll, pp. 370-391, 450-475**; Trachtenberg, pp. 287-91, 294-98; Nuttgens, pp. 176-185; Sutton, pp. 126-136; Ching, pp. 468, 470-72; Moffett, pp. 303-308, 313-317.

Leon Battista Alberti (1404-1472)

Rimini, Tempio Malatestiano (Church of S. Francesco), rebuilding ca. 1450; commissioned by Sigismondo Malatesta, Lord of Rimini as a memorial and funerary chapel for himself and his mistress, Isotta di Sassaferrato; façade is a collage/pastiche: cf. Rome, Pantheon Orange, Triumphal Arch; pier and arch structure, post and lintel overlaid ornament, plinth, entablature.

Mantua, Saint Andrea, begun 1472; modeled on Roman baths (Baths of Diocletian/Church of Santa Maria degli Angeli) and Roman basilicas (Basilica of Maxentius and Constantine); façade is a collage of the temple front and triumphal arch.

Donato Bramante (1444-1514)

Rome, St. Peter's Basilica, begun 1506; nothing visible today of Bramante's work; in 1547, Michelangelo took over as architect; completed in 17th cent. by Carlo Maderno; piazza by Gianlorenzo Bernini.

Rome, Tempietto in San Pietro in Montorio, 1508-12; cf. Rome, Mausoleum of Augustus and Temple of Vesta.

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The Work of Michelangelo and Palladio

Suggested Reading: **Ingersoll, pp. 370-391, 450-475**; Trachtenberg, pp. 303-08, 311-17; Nuttgens, pp. 185-189; Sutton, pp. 136-147; Ching, pp. 520-21, 523-25, 534-535; Moffett, pp. 323-336.

Michelangelo Buonarroti (1475-1564)

Sculpture: David, 1501-04; *contrapposto* position; contrast with examples of “Vitruvian Man” by Francesco di Giorgio and Leonardo da Vinci; contrast with sculpture of David by Donatello, 1408.

Florence, Monastery of San Lorenzo, Medici Chapel (“New Sacristy”), 1520; Library (stair vestibule and reading room), 1520-59; Mannerism.

Andrea Palladio (1508-1580)

Four Books on Architecture

Vicenza, “Basilica,” 1549.

Vicenza, Villa Capra (Villa Rotunda), 1550.

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SURVEY OF ARCHITECTURAL HISTORY I

Renaissance France: The Architecture of the *Château*

Suggested Reading: Trachtenberg, pp. 319-23); Nuttgens, pp. 190-194; Sutton, pp. 161-163; Ching, p. 474; Moffett, pp. 341-344.

Château Chambord

1519-1550 Francis I; architect unknown, perhaps the Italian, Domenico Da Cortona; combination of French castle plan with Italian details.

Château Chenonceau

1515 Thomas Bohier (financier and collector of taxes for the French kings); architect: anonymous.

1556-1559 Diane de Poitiers (mistress of Henry II); formal garden and bridge over Cher river; architect: Philibert De L'Orme.

1576 Catherine de Médicis (by now widow of Henry II and Regent of France); two-level gallery over bridge; architect: Jean Bullant.

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Baroque Italy: the Work of Bernini and Borromini

Suggested Reading: **Ingersoll, pp. 515-520**; Trachtenberg, pp. 327-29, 330-42); Nuttgens, pp. 202-209; Sutton, pp. 168-180; Ching, pp. 536-41; Moffett, pp. 353-365.

Gianlorenzo Bernini (1598-1680)

Sculpture: David, Apollo and Daphne, Rape of Proserpina

Rome, Sant Andrea al Quirinale, 1658-70.

Francesco Borromini (1599-1667)

Rome, S. Carlo alle Quattro Fontane, 1638-41, facade, 1665-67.

Rome, S. Ivo della Sapienza, 1642-50; dome influenced by half-dome at Canopus of Hadrian's Villa.

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Baroque and Rococo in Austria and Germany

Suggested Reading: **Ingersoll**, pp. 553-567; Trachtenberg, pp. 358-64); Nuttgens, pp. 209-213; Sutton, pp. 181-199; Ching, pp. 578-79; Moffett, pp. 352, 373-381.

Austria

Vienna, Karlskirche, beg. 1715, arch. Johann Fischer von Erlach (1656-1723); cf. Rome, Pantheon, dome of St. Peter's Basilica, Column of Trajan and church of S. Agnese in Agone (by Borromini).

Melk, Benedictine Abbey, 1702-14, arch. Jakob Prandtauer.

Germany

South German countryside, pilgrimage church, Vierzehnheiligen (Fourteen Saints), 1743-72; arch. Balthasar Neumann; Rococo interior.

Würzburg, Residence (of Prince-Bishop of Schönborn family), 1720-44, arch. Balthasar Neumann; chapel, Garden Room, "Stair House;" *quadratura*.

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France in the Seventeenth Century

Suggested Reading: **Ingersoll, pp. 497-515**; Trachtenberg, pp. 353-55); Sutton, pp. 205-209; Ching, pp. 563-65; Moffett, pp. 338- 341, 384-387.

Versailles, Château

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|---------|---|
| 1631 | Louis XIII - brick and stone square château. |
| 1643 | Louis XIII dies but his son, Louis XIV, is only five years old so Jules Mazarin governs until he dies in 1661. |
| 1661 | Louis XIV assumes full control of the state. |
| 1662 | Beginning of major remodeling of the gardens by André Le Nôtre;
(<i>parterre, tapis vert, bosquet</i>). |
| 1668-71 | "Envelope" project to surround old château on three sides by new buildings; architect: <u>Louis Le Vau</u> . |
| 1678-81 | North and south wings added; garden terrace enclosed to form
<i>Galerie des Glaces</i> (Hall of Mirrors); architect: <u>Jules-Hardouin Mansart</u> |

Sixteenth and Seventeenth-Century Landscape Design

Tivoli, Villa d'Este, 1550-72; architect Pirro Ligorio.

Versailles, Gardens of the Château of Louis XIV, begun 1662; designer: André Le Notre.

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SURVEY OF ARCHITECTURAL HISTORY I

England in the Seventeenth Century

Suggested Reading: **Ingersoll**, pp. 542-552; Trachtenberg, pp. 366-71); Nuttgens, pp. 214-215; Sutton, pp. 215-223; Ching, pp. 548-50, 570-71; Moffett, pp. 346-351, 388-392.

Central England, near Derby, Hardwick Hall, arch. Robert Smythson, 1590-97; client Bess of Hardwick; medieval manor house with Renaissance influence; cf. Vicenza, Palazzo Chiericati, Palladio, 1550.

Greenwich, Queen's House, arch. Inigo Jones (1573-1652), 1616-35; cf. Vicenza, Palazzo Chiericati, Palladio, 1550.

London, City Plan, after the fire of 1666, arch. Christopher Wren (1632-1723).

London, St. Paul's Cathedral, arch. C. Wren, 1675-1710;
cf. Paris, Church of the Invalids; Rome, St. Agnese by Borromini; Rome, St. Peter's Basilica, especially Michelangelo's dome.